**RESOLUTION NO. 11-090**

**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AUTHORIZING THE AWARD OF TASK ORDER NO. 01 FOR BIOLOGICAL, PHYSICAL, AND CONSTRUCTION MONITORING FOR THE RENOURISHMENT OF SMATHERS BEACH PROJECT TO PBS&J, INC IN AN AMOUNT NOT TO EXCEED $447,135.77; PROVIDING FOR AN EFFECTIVE DATE**

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the City Manager is authorized to execute Task Order No. 1 for PBS&J to provide biological, physical and construction monitoring for the renourishment of Smathers Beach Project in an amount not to exceed $447,135.77.

Section 2: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 15 day of March, 2011.

Authenticated by the presiding officer and Clerk of the Commission on March 16, 2011.

Filed with the Clerk March 16, 2011.

CRAIG CATES, MAYOR

ATTEST:

CHERYL SMITH, CITY CLERK

THE CITY OF KEY WEST
3140 Flagler Ave Key West, FL 33040 (305) 809-3792

MEMORANDUM

**TO:** Mayor and City Commissioners

**FROM:** Doug Bradshaw, Senior Project Manager

**TO:** Jim Scholl, City Manager
E. David Fernandez, Asst. City Manager – Operations
Mark Finigan, Asst. City Manager - Administration

**DATE:** March 15, 2011

**SUBJECT:** Smathers Beach Renourishment Project

On tonight's City Commission meeting is award of a Task Order to PBS&J for oversight of the Smather's Beach renourishment project. There are significant requirements in both the FDEP and USACE permits which extend up to 48-months after the sand placement. The tasking of this project falls under Consultants Competitive Negotiation Act (CCNA) which allows the City to negotiate with a professional engineering firm for the scope of services. We have several under contract who we could go to first for those negotiations. If we can't come to terms with that firm we stop those negotiations and we go to the next one. CCNA prevents us from going back to the first one once we start negotiations with the second firm.

The City had worked with GM Selby since December 2006 to secure the USACE permit for allowing us to place sand on the beach. The FDEP permit is in place but expires in July 2011 and will need renewing after completion of this project. Securing the USACE permit was a long drawn out process that became increasingly frustrating to City Management. There was a pattern that is well documented that indicates the two parties did not have a productive working relationship which may have delayed issuance of the permit. A significant error in the permit that was issued involved it only being a 5-year when it should have been a 10-year permit. GM Selby was unable to correct this issue on behalf of the City. GM Selby has also been working on securing the USACE permit for Rest Beach. On this project there is a pattern of the USACE requesting additional information (RAIs) and GM Selby failing to provide the response or complete responses. On numerous occasions USACE had to ask for the same information in consecutive RAIs.

When it came to the task order of overseeing the sand placement and the significant permit requirements of monitoring, data collection, mapping, reporting, etc., GM Selby was first considered and Janet Muccino in engineering received a preliminary cost estimate for the work but again after being promised the USACE permit several

times and not delivering, Management chose to not negotiate any further with GM Selby and instead negotiate with PBS&J. Again, once this occurs CCNA prevents the City from going back to GM Selby.

GM Selby has sent a letter to the Mayor indicating that they could perform the work cheaper then PBS&J. Based on their preliminary cost estimate that was completed before issuance of the USACE and a cost estimate that they, in their last meeting with the City, have admitted needed revising, that may be the case. Additionally prior to submitting the letter to the Mayor, they had the knowledge of the cost in the PBS&J task order. This goes against the spirit of CCNA. CCNA prevents us from "shopping" price among professional engineering firms and there is that chance that price may increase once you go to the 2nd firm.

In the case of GM Selby, it has never been about cost. Management believes that GM Selby is not the most qualified firm to take the City through the beach renourishment project. There are the performance issues as indicated above and the USACE has indicated to the City that there are problems in their working relationship with GM Selby which may cause delays in issuance of permits. The City has worked exclusively with GM Selby for the past 6 years in obtaining permits for both Smathers and Rest beaches. That process has at times been extremely painful and frustrating and Management feels it is time to make a change.

PBS&J has vast experience working with FDEP and USACE and every indication is that their working relationship is very productive. Their fee for the work does appear to be about 17% higher then GM Selby, but again the decision to not task GM Selby with the work was not based on cost

THE CITY OF KEY WEST
Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3700

MEMORANDUM

**TO:** Jim Scholl, City Manager

**CC:** E. David Fernandez, Asst. City Manager – Operations
Mark Finigan, Asst. City Manager - Administration

**FROM:** Doug Bradshaw, Senior Project Manager

**DATE:** March 2, 2011

**SUBJECT**: Approval of Task Order No. 01 Biological, Physical, and Construction Monitoring for the Renourishment of Smathers Beach Project to PBS&J. for $447,135.77 and approval of necessary general fund budget transfers.

**ACTION STATEMENT:**
This resolution will approve Task Order No. 01 and necessary for general environmental consulting services for the supervision of the beach renourishment at Smathers Beach and the physical and biological monitoring as required by Florida Department of Environmental Protection (FDEP) and United States Army Corps of Engineers (USACE) permits in an amount not to exceed $447,135.77 to PBS&J.

**BACKGROUND:**
The City of Key West constructed Smathers Beach in the early 1960's by excavating rock out 500 feet on the waterside of the South Roosevelt Blvd Seawall and replacing with sand. The beach eroded over the years and by the 1980's it was mostly cap rock on the beach and large chunks of rocks in the water. The City and County spent over $2 million in permitting and mitigation and finally obtained the renourishment permits in 1998. Renourishment occurred in 2000 with protective beach fill along 3,000 feet of the previously nourished Smathers Beach area. Funding for the renourishment came from the USACE, FDEP, TDC and City of Key West.

Smathers beach has continued to erode since the renourishment in 2000. The City has rebuilt the protective berms above mean high water (MHW) after most hurricane events but the beach below MHW has not been renourished and is eroding and rocky.

The City has been actively working on a complete renourishment project for Smather's Beach. The City has issued and received bids from contractors for the sand placement for the beach renourishment project and expects the work to begin this spring/summer. The City has a current FDEP and USACE permit (see attachments) for the proposed beach renourishment project. The permits have numerous requirements for pre, during, and post-construction activities which include actions to manage and minimize environmental damage. Due to the beach being located in the Florida Keys National Marine Sanctuary (FKNMS) the agencies require more monitoring than for a typical beach. The permits include 8 beach topographic surveys and seagrass studies over a period of 4 years. The

City is working arduously through its consultant PBS&J to reduce the number of monitoring events if possible.

**PURPOSE AND JUSTIFICATION**
In order to begin the project, the City must task a consultant to oversee construction and complete the requirements of the permits. Without the required monitoring, the beach cannot be renourished.

**OPTIONS / ADVANTAGES / DISADVANTAGES:**

1. Approve task order for PBS&J in the amount of $447,135.77 and authorize necessary general fund budget transfers. PBS&J. has an existing agreement with the City for general environmental consulting services. Executing this task order will enable the City to proceed with the beach renourishment project on schedule and will utilize the expertise this firm brings.

2. The City Commission can decline to authorize this task order; however, obtaining a new coastal firm would delay the project which must be complete by July 6, 2011 which is when the FDEP permit expires.

3. The City Commission can choose not to move forward with the renourishment project. This is not recommended by staff. The beach is an important component of our tourism industry, home to not only swimmers, but weddings, water sports and sunbathers. The Key West beaches are promoted by the TDC and having a rocky beach and small beach is less than optimal. Smaller hotels, motels, guest house and inns all rely on beaches for guest recreation as they do not have their own beaches.

**FINANCIAL IMPACT:**
This task order is for $447,135.77. The task order contains all tasks required pre, during and post renourishment for both permits.

The budgeted amount for the renourishing project including sand placement and monitoring/CEI is $903,200 for budget year 2010-2011. (City of Key West - $370,100, TDC - $103,900, and DEP - $429,200). Total cost for the project during budget year 2010-2011 is $963,450 which requires a budget transfer of $60,500 from the general fund reserves to cover the project.

| Budget Year | Sand Placement | Monitoring/CEI | Total Cost | Available Funds | +/- |
|---|---|---|---|---|---|
| 2010-2011 | $743,574 | $219,876 | $963,450 | $903,000 | -$60,450 |
| 2011-2012 | | $128,790 | $128,790 | * | -$128,790 |
| 2012-2013 | | $53,410 | $53,410 | * | -$53,410 |
| 2013-2014 | | $22,530 | $22,530 | * | -$22,530 |
| 2014-2015 | | $22,530 | $22,530 | * | -$22,530 |

*The City will need to budget funds to cover the cost of the project during these years

**RECOMMENDATION:**
Staff recommends that the City Commission select option 1, the approval of the task order to PBS&J in the amount of $447,135.77 and authorize necessary general fund budget transfers.

PBSJ
an Atkins company

March 1, 2011

Doug Bradshaw
201 William St., 2nd Floor
Key West, FL 33040

**Re: Smathers Beach Renourishment Monitoring**

Mr. Bradshaw:

The City of Key West (City) previously selected PBS&J in February 2008 as an approved contractor to furnish general environmental services to the City. Per Article 6.1 (A), the City Commission extended this agreement by the execution of Resolution 110-051.

PBS&J has been requested to provide services for the above referenced project. In support of this project, please find attached supporting detailed cost estimates and task order information for submission to and for the approval of the City Commission. The cost estimate is being provided as a guide for the future.

Thank you in advance for your consideration of this extension request. If you have any questions or need additional assistance, please do not hesitate to contact me at (305) 514-3387.

We are available to commence work on this task immediately.

Sincerely,

Adam R. Gelber
Group Manager
PBS&J

**TASK ORDER 01**

**CONSTRUCTION MONITORING SERVICES**
**SMATHERS BEACH, KEY WEST, FLORIDA**

**CONTRACT NO. 11-051**

General
The City of Key West (City) was issued a Consolidated Joint Coastal Permit (JCP)and a Sovereign Submerged Lands Authorization in July 1998 through permit number 0129031-001-JC. This permit authorizes periodic placement of sand along the 3,000 foot Smathers Beach within the City limits. The initial beach restoration project involved the placement of 36,000 cubic yards of sand and mitigated for 5.2 acres of seagrass habitat at a site known as the blimp pad in 2000. The USACE permit application is pending approval. The three main task assignments for this task order are: 1) construction monitoring, 2) biological monitoring and 3) physical monitoring.

1.0 Kick Off Meeting
PBS&J will participate in the Kickoff Meeting with the City and other designated agencies/individuals. Anticipated date of _____ to be held at a location to be determined. Prior to this meeting PBS&J will develop concise timeline and organize the permits into a single composite document with all of the necessary requirements.

Points of discussion will include, but are not limited to:

- Exchange of information
- Establishing definitive project, monitoring and construction scheduling goals
- Agency negotiations approach
- Establish communications plan
- Establish health and safety plan

Deliverable – Meeting minutes and any required additional submittals as a result of the meeting

2.0 Agency Coordination/Negotiation
Currently the FDEP and the USACE are requiring multiple monitoring events at inconsistent intervals. The pre-, post- and 12 month post-construction surveys are common to the requirements of both regulatory agencies, but additional intermittent intervals are defined by either agency at 4, 6, and 8 months post construction. PBS&J will meet with the regulatory agencies in order to seek relief from survey intensive requirements and attempt to negotiate a common monitoring schedule that is both effective and practical. The objective of this task is to reduce to the monitoring requirements of both agency authorizations to be consistent with each other and occur at the pre-, post- and 12 month post-construction timeframes. PBS&J will coordinate meetings with the regulatory agencies in order to facilitate this process.

Deliverable – Documentation of the meetings and results of those meeting.

3.0 Preconstruction Activities
The biological and physical monitoring services described below will be repeated for the post construction monitoring events with the exclusion of the sea turtle nesting monitoring. The monitoring protocols should be established based on the information in Section 5.1 so that they will be repeatable for comparison purposes through the end of the monitoring period. If a mitigation plan is required, the

resource investigation associated with the mitigation plan development will serve as the preconstruction survey.

### 3.1 Biological Monitoring

PBS&J will compile and review available data, existing permits, reports, maps and aerial photographs pertaining to benthic habitats and associated communities, fisheries, manatees, listed/proposed endangered coral species, and other protected species/critical habitat applicable to the study area. PBS&J will gather information through database literature searches, telephone interviews, and meetings with identified sources of information.

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

### 3.2 Topographic/Bathymetric Surveys

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

#### 3.2.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

3.2.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

3.2.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for the Pre construction survey.

3.3 Marine Sea Turtle Lighting Survey

Stray light being cast upon documented marine sea turtle nesting beaches is a significant factor in the degredation of nesting habitat on the beaches of Florida. In order to monitor for the potential of impact, the following monitoring protocol will be established.

- Identify potential problem sources during the day light hours
- Conduct night time surveys
- Identify problem sources
- Address problem sources and remove stray source from impacting beach prior to construction

3.4 Preconstruction CEI

- Facilitate submittal of the City's signed and sealed construction plans to the FDEP.
- Submit detailed geotechnical reports provided by the Contractor for the upland borrow site. Information on the material to be placed on the beach shall include grain size analysis from representative points throughout the borrow area. Reports shall provide assurance that the material is similar to that already existing at the beach site in both coloration and grain size. Reports shall document that all material is free of construction debris, rocks or other foreign matter and does not contain, on average, greater than 10 percent fines passing a No. 200 sieve and shall not contain coarse gravel or cobbles, exclusive of shell material retained by a No. 4 sieve.
- Conduct a pre-construction conference with all contractors, engineer of record, marine turtle permit holder and FDEP staff representative. Other appropriate agency staff and stakeholders may also be invited. The purpose of the meeting is to establish an understanding among all parties as to the requirements of the permit. A minimum 10 days advance written notification to the appropriate agencies and attendees will be provided.
- Provide written notice of commencement to appropriate agencies FDEP, Corps, FWC, FKNMS, etc.) within the time frames addressed to all parties as required by regulatory authorizations.
- Marine Sea Turtle Lighting Survey
- Biological Monitoring per Section 3.1.

Deliverables:

- Meetings - all meeting agendas, notifications and minutes of the meetings.

- Reports and notices – copies of all reports and notices filed with agencies.

4.0 Construction Engineering Inspection Monitoring

PBS&J will provide construction engineering and inspection (CE&I) services for a period of 20 days. If additional time is required, additional funding will come from Task 14. PBS&J is well qualified and has a long history working on beach and coastal construction projects throughout the state of Florida. An inspector will be onsite during construction for an estimated duration of 20 days, tentatively scheduled to begin _____. The inspector will be qualified and familiar with coastal projects and environmental resources, beach construction techniques, and turbidity monitoring. The inspector will serve as site supervisor and have the authority to alter construction techniques or shut down operations based on turbidity monitoring results or other observations the inspector deems appropriate. Daily construction monitoring activities will include:

- Conduct daily briefings and weekly meetings with contractor
- Do not allow construction to begin until daily marine turtle monitoring of the area has been conducted
- Review contractor invoices and provide recommendations to the City
- Daily monitoring and recording of construction activities
- Random visit to stockpile site to observe delivery of sand, random visual assessment of truck volumes with comparison to delivery ticket volumes stated.
- Oversight of placement of sand on the beach and assessment of sand quality to ensure meets standards in plans, specifications and permit documents
- Collection and logging of periodic sand samples for quality assurance Record
- Daily construction monitoring observations documented with photographs.
- Perform turbidity monitoring as required by regulatory authorizations and provide required reports
- Oversee beach tilling and any compaction monitoring, if required
- Prepare weekly project progress reports to the City
- Maintain copies of project records
- Monitor and advise on placement of erosion control devices
- Prepare final engineers report at conclusion of project and submit along with notice of completion to agencies as required by permits
- Within 30 days following project completion submit appropriate written statement of completion and certification providing confirmation that activities were performed in compliance with the plans, specifications and all conditions of the permit. Any deviations shall be duly noted and described. If completed project is substantially different than permitted plans, substantial deviations shall be noted and provided on a set of as-built drawings.
- Submit required reports to specified regulatory agencies.
- Train City staff to take turbidity samples for the one week post construction monitoring.

5.0 Post Construction Monitoring

The post construction biological and physical monitoring will be based on the repeatable program established for the preconstruction physical and biological monitoring. Biological

5.1 Biological Immediate Post Construction

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a

Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

5.2 Topographic/Bathymetric Immediate Post Construction

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

5.2.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

5.2.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

5.2.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for immediate post construction survey.

5.3 Turtle Lighting Survey

Stray light being cast upon documented marine sea turtle nesting beaches is a significant factor in the degredation of nesting habitat on the beaches of Florida. In order to monitor for the potential of impact, the following monitoring protocol will be established.

- Identify potential problem sources during the day light hours
- Conduct night time surveys
- Identify problem sources
- Address problem sources and remove stray source from impacting beach during construction

6.0 4 Month Post Construction Monitoring

6.1 Biological Post Construction

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

7.0 6 Month Post Construction Monitoring

7.1 Topographic/Bathymetric Post Construction

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

7.1.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe

the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

7.1.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

7.1.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for immediate post construction survey.

8.0 8 Month Post Construction Monitoring

8.1 Biological Post Construction

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

9.0 12-Month Post Construction Monitoring

9.1 Biological 12-Month Post Construction

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the

operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

Deliverable – Detailed report describing, comparing and contrasting conditions from post construction monitoring efforts and the results from this effort.

10.0 24 Month Post Construction

10.1 Biological 24-Month Post Construction

PBS&J shall conduct field investigations to locate, delineate and characterize existing benthic resources, e.g. seagrasses, sandbottom, hardbottom, corals, etc., within the marine survey areas. The entire project area will begin with a visual reconnaissance, during which time 2 to 4 PBSJ biologists will haphazardly cover the sampling area via snorkel All individual coral colonies with diameters >4.0 in (>10.2 cm) within the survey area will be identified and mapped using a Trimble Geo-XT handheld DGPS unit, running ArcPad 7.0. Each coral will have a representative photograph taken for future reference for constructability purposes, if mitigation is required. Polygonal contour vertices will be identified by snorkelers in the water and recorded by the operator of the Trimble floating adjacent to the biologist. Successive polygons will then be added to the shapefile until the entire project area has been sufficiently mapped. All hardbottom outcroppings or edges will be mapped using the same technology. A map of the individual coral colony locations will be produced and incorporated into the bathymetry and seagrass data using Geographical Information System (GIS) software. All submerged lands within the 550 foot buffer will be intensively sampled for seagrass occurrence using an agency approved approach. The objectives of the survey will be (1) to produce a detailed, species-specific map capable of estimating impact acreage, and (2) to quantify the distribution of seagrass within the project area using NMFS/NOAA methods (National Marine Fisheries Service 2002).

10.2 Topographic/Bathymetric Post Construction

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

10.2.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe

the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

10.2.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

10.2.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for 12-month survey.

11.0 36 Month Post Construction

11.1 Topographic/Bathymetric Post Construction

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

11.1.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

11.1.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

11.1.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for 12-month survey.

12.0 48 Month Post Construction

12.1 Topographic/Bathymetric Post Construction

In order to conduct surveying activities a network of control stations shall be established or recovered in the proposed survey area with both vertical and horizontal values. The network shall consist of Local 2nd Order, Class 2 vertical (both NAVD88 and NGVD29), Tidal Bench Marks and Horizontal (NAD83) control points. Vertical points shall be tied into the Tidal Bench Mark in the area and the horizontal control points shall be tied into the Florida GPS Network. Permanent Reference Control Monuments (brass disc in concrete) shall be established at 500 ft intervals along the length of project. The network of control stations shall include temporary benchmarks (3rd order vertical/horizontal) and physical ground topography points (3rd order vertical/horizontal). The ground topography points shall be either digital, differential, or trigonometric measurements.

All work performed will meet or exceed USACE requirements, FDEP requirements and Florida Minimal Technical Standards of Chapter 472.027 F.S. Rule 5J-17 Florida Administrative Code.

12.1.1 Data Resolution

The topographic data will be collected at 100 intervals not to exceed 25 ft. along the profile and all grade breaks and attributed items along the profile sufficient to describe the profile. All survey data shall be provided in digital form and used to produce a Digital Terrain Model (DTM) map at 0.5 ft contour intervals and tied to the Mean High Water line as approved by FDEP.

12.1.2 Data Collection

The Topographic data shall be collected seaward out to approximate 600 feet in order to establish continuity with offshore data and landward to no less than 150 landward of the established Mean High Water line as approved by the FDEP or to the edge of pavement of the abutting roadway.

12.1.3 Procedural Control

The surveyor shall outline and maintain a schedule for planned data collection and itemize all procedures including quality control and instrumentation to be followed during the pre and immediate post construction survey, DTM map with cut and fill calculations will required to be performed and again at the 6 and 12 month monitoring period.

Deliverables - All survey data shall be provided in digital form and used to produce the DTM map. Signed and sealed surveys by a Professional Land Surveyor will be submitted for 12-month survey.

**Smathers Beach Monitoring**
**Resolution 11-051 Task Order #01**

| Category | Rodperson II | Instrument Operator I | Tech I | Tech II | Sr Tech I | Sr Tech II | Sr Tech III | Sr. Tech IV | Sr Tech V | PTP/Sr. Div Manager | Hours | Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Task** | $29.00 | $47.00 | $55.00 | $75.00 | $90.00 | $110.00 | $125.00 | $150.00 | $175.00 | $200.00 | | |
| **1.0 - Project Kick Off** | | | | | | | | | | | | |
| 1.1 Project Organization | | | | | | 16 | 8 | | 4 | 4 | 32 | $4,260.00 |
| 1.2 Meet with City Staff | | | | | | 24 | 12 | | | 12 | 48 | $6,540.00 |
| | | | | | | | | | | ***Subtotal*** | ***48*** | ***$10,800.00*** |
| **2.0 - Agency Coordidnation/Negotiation** | | | | | | | | | | | | |
| 2.1 Establish agency meeting | | | | | | 4 | | | 4 | | 8 | $1,140.00 |
| 2.2 Negotiate for minimizing monitroing | | | | | | 8 | 4 | | 8 | | 20 | $2,780.00 |
| | | | | | | | | | | ***Subtotal*** | ***28*** | ***$3,920.00*** |
| **3.0 - Preconstruction Activities (Baseline)** | | | | | | | | | | | | |
| 3.1 Biological | | | | | | | | | | | | |
| 3.1.1 Biological Monitoring | | | | 65 | 55 | 69 | 55 | | 4 | | 248 | $24,990.00 |
| 3.1.2 Biological Reporting | | | | 80 | 16 | 4 | 2 | | | | 102 | $8,130.00 |
| 3.2 Topographic/Bathymetric Survey | | | | | | | | | | | | |
| 3.2.1 Establish Survey Controls | 24 | 24 | | | 24 | 12 | | 3 | | 16 | 103 | $8,954.00 |
| 3.2.2 Data Collection | 32 | 32 | | | 32 | | | | | | 96 | $5,312.00 |
| 3.2.3 Procedural Control | | | | | 24 | 16 | | 3 | | 4 | 47 | $5,170.00 |
| 3.2.4 Deliver DTM map signed and sealed | | | | | 16 | | | 4 | | 2 | 22 | $2,440.00 |
| 3.3 Sea Turtle Lighting Survey | | | | | | | | | | | | |
| 3.3.1 Survey | | | | | | 4 | 4 | | | | 8 | $940.00 |
| 3.4 Preconstruction CEI | | | | | | | | | | | | |
| 3.4.1 CEI Coordination | | | | | | | 16 | | | | 16 | $2,000.00 |
| | | | | | | | | | | ***Subtotal*** | ***642*** | ***$57,936.00*** |
| **4.0 - Construction Engineering Inpsection** | | | | | | | | | | | | |
| 4.1 On-site coordination to extend 20 days | | | | | | 176 | | | | | 176 | $19,360.00 |
| 4.2 Biological Monitoring- limited survey | | | | 48 | 28 | 32 | 4 | | | | 112 | $10,140.00 |
| | | | | | | | | | | ***Subtotal*** | ***288*** | ***$29,500.00*** |
| **5.0 - Post Construction Monitoring** | | | | | | | | | | | | |
| 5.1 Biological - Immediate Post | | | | | | | | | | | | |
| 5.1.1 Biological Monitoring | | | | 65 | 55 | 65 | 55 | | 4 | | 244 | $24,550.00 |
| 5.1.2 Biological Reporting | | | | 56 | 16 | 4 | 2 | | | | 78 | $6,330.00 |
| 5.2 Topographic/Bathymetric Survey (As-Builts) | | | | | | | | | | | | |
| 5.2.1 Review Survey Controls | 10 | 10 | | | 10 | 2 | | 2 | | 16 | 50 | $5,380.00 |
| 5.2.2 Data Collection | 32 | 32 | | | 32 | | | | | | 96 | $5,312.00 |
| 5.2.3 Procedural Control | | | | | 24 | 16 | | 3 | | 1.5 | 44.5 | $4,670.00 |
| 5.2.4 Deliver DTM map signed and sealed | | | | | 16 | 48 | | 4 | | 1 | 69 | $7,520.00 |
| | | | | | | | | | | ***Subtotal*** | ***581.5*** | ***$53,762.00*** |
| **6.0 - 4 Month Post Construction** | | | | | | | | | | | | |
| 6.1 Biological - Immediate Post | | | | | | | | | | | | |
| 6.1.1 Biological Monitoring | | | | 65 | 55 | 65 | 55 | | 4 | | 244 | $24,550.00 |
| 6.1.2 Biological Reporting | | | | 56 | 16 | 4 | 2 | | | | 78 | $6,330.00 |
| | | | | | | | | | | ***Subtotal*** | ***322*** | ***$30,880.00*** |
| | | | | | | | | | | | | |

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**Smathers Beach Monitoring**
**Resolution 11-051 Task Order #01**

| Category | Rodperson II | Instrument Operator I | Tech I | Tech II | Sr Tech I | Sr Tech II | Sr Tech III | Sr. Tech IV | Sr Tech V | PTP/Sr. Div Manager | Hours | Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Task** | $29.00 | $47.00 | $55.00 | $75.00 | $90.00 | $110.00 | $125.00 | $150.00 | $175.00 | $200.00 | | |
| **7.0 - 6 Month Post Construction** | | | | | | | | | | | | |
| 7.1 Topographic/Bathymetric Survey | | | | | | | | | | | | |
| 7.1.1 Review Survey Controls | 8 | 8 | | | 8 | | | 2 | | 2 | 28 | $2,028.00 |
| 7.1.2 Data Collection | 32 | 32 | | | 32 | | | | | 1.5 | 97.5 | $5,612.00 |
| 7.1.3 Procedural Control | | | | | 24 | 16 | | 3 | | 1.5 | 44.5 | $4,670.00 |
| 7.1.4 Deliver DTM map signed and sealed | | | | | 16 | 16 | | 4 | | 1 | 37 | $4,000.00 |
| | | | | | | | | | | ***Subtotal*** | ***207*** | ***$16,310.00*** |
| **8.0 - 8 Month Post Construction** | | | | | | | | | | | | |
| 8.1 Biological - Immediate Post | | | | | | | | | | | | |
| 8.1.1 Biological Monitoring | | | | 65 | 55 | 65 | 55 | | 4 | | 244 | $24,550.00 |
| 8.1.2 Biological Reporting | | | | 56 | 16 | 4 | 2 | | | | 78 | $6,330.00 |
| | | | | | | | | | | ***Subtotal*** | ***322*** | ***$30,880.00*** |
| **9.0 - 12 Month Post Construction** | | | | | | | | | | | | |
| 9.1 Biological - Immediate Post | | | | | | | | | | | | |
| 9.1.1 Biological Monitoring | | | | 65 | 55 | 65 | 55 | | 4 | | 244 | $24,550.00 |
| 9.1.2 Biological Reporting | | | | 56 | 16 | 4 | 2 | | | | 78 | $6,330.00 |
| | | | | | | | | | | ***Subtotal*** | ***322*** | ***$30,880.00*** |
| **10.0 - 24 Month Post Construction** | | | | | | | | | | | | |
| 10.1 Biological - Immediate Post | | | | | | | | | | | | |
| 10.1.1 Biological Monitoring | | | | 65 | 55 | 65 | 55 | | 4 | | 244 | $24,550.00 |
| 10.1.2 Biological Reporting | | | | 56 | 16 | 4 | 2 | | | | 78 | $6,330.00 |
| 10.2 Topographic/Bathymetric Survey | | | | | | | | | | | | |
| 10.2.1 Review Survey Controls | 16 | 16 | | | 16 | 6 | | 3 | | 2 | 59 | $4,166.00 |
| 10.2.3 Data Collection | 32 | 32 | | | 32 | | | | | 2.5 | 98.5 | $5,812.00 |
| 10.2.4 Procedural Control | | | | | 24 | 16 | | 4 | | 4 | 48 | $5,320.00 |
| 10.2.5 Deliver DTM map signed and sealed | | | | | 16 | 16 | | 6 | | 2 | 40 | $4,500.00 |
| | | | | | | | | | | ***Subtotal*** | ***567.5*** | ***$50,678.00*** |
| **11.0 - 36 Month Topographic/Bathymetric** | | | | | | | | | | | | |
| 11.1 Review Survey Controls | 16 | 16 | | | 16 | 6 | | 3 | | 2 | 59 | $4,166.00 |
| 11.2 Data Collection | 32 | 32 | | | 32 | | | | | 2.5 | 98.5 | $5,812.00 |
| 11.3 Procedural Control | | | | | 24 | 16 | | 4 | | 4 | 48 | $5,320.00 |
| 11.4 Deliver DTM map signed and sealed | | | | | 16 | 16 | | 6 | | 2 | 40 | $4,500.00 |
| | | | | | | | | | | ***Subtotal*** | ***245.5*** | ***$19,798.00*** |
| **12.0 - 48 Month Topographic/Bathymetric** | | | | | | | | | | | | |
| 12.1 Review Survey Controls | 16 | 16 | | | 16 | 6 | | 3 | | 2 | 59 | $4,166.00 |
| 12.2 Data Collection | 32 | 32 | | | 32 | | | | | 2.5 | 98.5 | $5,812.00 |
| 12.3 Procedural Control | | | | | 24 | 16 | | 4 | | 4 | 48 | $5,320.00 |
| 12.4 Deliver DTM map signed and sealed | | | | | 16 | 16 | | 6 | | 2 | 40 | $4,500.00 |
| | | | | | | | | | | ***Subtotal*** | ***245.5*** | ***$19,798.00*** |
| **13.0 Project Management** | | | | | | | | | | | | |
| 13.1 Mantaining Schedule and Budget | | | | | | 120 | 40 | | | | 160 | $18,200.00 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

**Smathers Beach Monitoring**
**Resolution 11-051 Task Order #01**

| Category | Rodperson II | Instrument Operator I | Tech I | Tech II | Sr Tech I | Sr Tech II | Sr Tech III | Sr. Tech IV | Sr Tech V | PTP/Sr. Div Manager | Hours | Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Task** | $29.00 | $47.00 | $55.00 | $75.00 | $90.00 | $110.00 | $125.00 | $150.00 | $175.00 | $200.00 | | |
| **14.0 Contingency Items** | | | | | | | | | | | | |
| Aerial Photography | | | | | | | | | | | | |
| Other as authorized by City PM | | | | | | | | | | | 5% | $18,667.00 |
| | | | | | | | | | | | | |
| | | | | | | | | | | *Total Labor* | | *$392,009.00* |
| | | | | | | | | | | *Total Expenses* | | *$55,126.77* |
| | | | | | | | | | | *Total* | | *$447,135.77* |

## Smathers Beach Monitoring
## Resolution 11-051 Task Order #01

| Item | Unit | Unit Price | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 | Task 6 | Task 7 | Task 8 | Task 9 | Task 10 | Task 11 | Task 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Per Diem | day | $42.00 | $252.00 | | $966.00 | $1,806.00 | $1,764.00 | $1,050.00 | $630.00 | $1,050.00 | $1,050.00 | $630.00 | $630.00 | $630.00 |
| Mileage | mile | $0.49 | $152.29 | | $304.58 | $1,316.29 | $304.58 | $152.29 | $152.29 | $152.29 | $152.29 | $152.29 | $152.29 | $152.29 |
| Plane | R/T | At cost | | | | | | | | | | | | |
| Tolls | Each | at cost | | | | | | | | | | | | |
| Accommodations | per/nite | $175.00 | $525.00 | | $6,825.00 | $5,425.00 | $5,425.00 | $4,200.00 | $1,750.00 | $4,200.00 | $4,200.00 | $1,750.00 | $1,750.00 | $1,750.00 |
| Jon Boat w/ outboard | day | $50.00 | | | $200.00 | | $200.00 | | $200.00 | | | $200.00 | $200.00 | $200.00 |
| Boat to 20' | 1/2 day | $200.00 | | | | | | | | | | | | |
| Boat to 20' | day | $350.00 | | | | | | | | | | | | |
| Boat greater than 20' | day | at cost | | | | | | | | | | | | |
| Snorkel Gear | day | $15.00 | | | | $300.00 | $300.00 | $300.00 | | $300.00 | $300.00 | | | |
| SCUBA Equipment | day | $40.00 | | | | | | | | | | | | |
| Turbidity meter | day | $15.00 | | | | $525.00 | | | | | | | | |
| Misc Field Supplies | each | $100.00 | | | $500.00 | | | | | | | | | |
| ***Subtotal*** | | | ***$929.29*** | ***$0.00*** | ***$8,795.58*** | ***9,372.29*** | ***$7,993.58*** | ***5,702.29*** | ***$2,732.29*** | ***5,702.29*** | ***5,702.29*** | ***$2,732.29*** | ***$2,732.29*** | ***$2,732.29*** |
| | | | | | | | | | | | | Total | | $55,126.77 |

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## Doug Bradshaw

**From:** Gelber, Adam [agelber@pbsj.com]
**Sent:** Tuesday, March 01, 2011 3:44 PM
**To:** Doug Bradshaw
**Subject:** RE: Smathers Beach Renourishment

I had copied the FY 11 Expenses total cell into the FY 12 Expenses total. Hence the difference of 27090.74

This should work.

| | Labor | Expenses | |
|---|---|---|---|
| Task 1 | $10,800.00 | $929.29 | |
| Task 2 | $3,920.00 | $0.00 | |
| Task 3 | $57,936.00 | $8,795.58 | |
| Task 4 | $29,500.00 | $9,372.29 | |
| Task 5 | $53,762.00 | $7,993.58 | |
| Task 13 | $18,200.00 | $0.00 | |
| Task 14 | $18,667.00 | $0.00 | |
| **FY 11** | **$192,785.00** | **$27,090.74** | **$219,875.74** |
| Task 6 | $30,880.00 | $5,702.29 | |
| Task 7 | $16,310.00 | $2,732.29 | |
| Task 8 | $30,880.00 | $5,702.29 | |
| Task 9 | $30,880.00 | $5,702.29 | |
| **FY 12** | **$108,950.00** | **$19,839.16** | **$128,789.16** |
| Task 10 | $50,678.00 | $2,732.29 | |
| **FY 13** | **$50,678.00** | **$2,732.29** | **$53,410.29** |
| Task 11 | $19,798.00 | $2,732.29 | |
| **FY 14** | **$19,798.00** | **$2,732.29** | **$22,530.29** |
| Task 12 | $19,798.00 | $2,732.29 | |
| **FY 15** | **$19,798.00** | **$2,732.29** | **$22,530.29** |
| | | | **$447,135.77** |

**Adam Gelber**
Sr Scientist/Group Manager
***PBS&J***, an Atkins company
305-514-3387



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**From:** Doug Bradshaw [mailto:dbradsha@keywestcity.com]
**Sent:** Tuesday, March 01, 2011 1:27 PM

RESOLUTION NO. 11-051

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, EXERCISING THE TWO-YEAR RENEWAL OPTION CONTAINED IN THE CONTRACT FOR GENERAL ENVIRONMENTAL CONSULTING SERVICES WITH PBS&J, ORIGINALLY APPROVED IN RESOLUTION NO. 08-061; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, in Resolution No. 08-061, the City Commission approved a three-year contract with a two-year renewal option with PBS&J for general environmental consulting services; and

WHEREAS, the City Commission, having considered staff recommendations, has chosen to renew the contract, for the two year extension period.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the contract is hereby extended for two years, pursuant to the contract documents approved in Resolution No. 08-061;

Section 2: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 15 day of February, 2011.

Authenticated by the presiding officer and Clerk of the Commission on February 16, 2011.

Filed with the Clerk February 16, 2011.

CRAIG CATES, MAYOR

ATTEST:

CHERYL SMITH, CITY CLERK

**RESOLUTION NO.** 08-061

**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, APPROVING THE ATTACHED CONTRACT BETWEEN THE CITY OF KEY WEST AND PBSJ FOR ENVIRONMENTAL CONSULTING SERVICES; PROVIDING FOR AN EFFECTIVE DATE**

WHEREAS, the City of Key West previously selected PBSJ as an approved contractor to furnish general environmental consulting services to the City of Key West and directed staff to negotiate a contract with the company; and

WHEREAS, staff and consultants have negotiated the attached contract; and

NOW THEREFORE BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the attached contract between the City of Key West and PBSJ is hereby approved.

Section 2: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 20th day of February, 2008.

Authenticated by the presiding officer and Clerk of the Commission on February 21, 2008.

Filed with the Clerk February 21, 2008.

MORGAN McPHERSON, MAYOR

ATTEST:

CHERYL SMITH, CITY CLERK