

April 28, 2017

Brynt Johnson, P.E.
Public Works Director
The City of Riviera Beach
2391 Ave L
Riviera Beach, Florida 33404

**Re: Proposal for Professional Consulting Services
Neighborhood Improvements – Singer Island
Structural designs**

Dear Mr. Johnson:

Erdman Anthony is pleased to submit this proposal for Professional Engineering Services to The City of Riviera Beach (Client) in connection with the subject project.

Understanding

Based on our understanding this revision to our current agreement for professional services associated with the Singer Island project is to design and prepare plans for six structures over the waterways in the neighborhood. The replacement structures will be short-span bridges over the existing waterways.

Scope of Work and Deliverables

1. Geotechnical exploration

The geotechnical engineer will perform four SPT borings to a depth of 75' each. This effort includes maintenance of traffic and utility clearance. The analysis will include soil testing and corrosion analysis. The report will include their findings and recommendations regarding soil parameters. This task will be provided by our SBE sub-consultant Radise International. See their proposal attached.

2. Span design

Design the bulkheads and spans, prepare plans and details for permitting and bidding. This task will be provided by our SBE sub-consultant Alan Gerwig & Associates. See their proposal attached.

3. Maintenance of Traffic concept

Erdman Anthony will prepare general traffic control concept sketches and instructions to demonstrate constructability. Detailed maintenance of traffic plans will be the responsibility of the contractor. Securing temporary construction easements and/or permanent easements will be the responsibility of the City.

4. Utility plans

The utility plans that are being prepared by Erdman Anthony as part of our original work order will be expanded to include these six areas. Erdman Anthony will coordinate with the City and structural engineer regarding the location and detailed route of the proposed water and force mains. Erdman Anthony will coordinate with the

other known utilities in the neighborhood regarding their facilities and the need for conduits within the bridge structures.

5. Roadway approach plans

The roadway plans that are being prepared by Erdman Anthony as part of our original work order will be revised to address these six areas. Erdman Anthony will prepare a separate set of plans that details the paving, grading, drainage, and utilities for the bridge and bridge approach areas so that these bridge projects can be let for contractors to bid separately and in advance of the neighborhood infrastructure improvement project.

6. Review of Sub-consultant Submissions

Erdman Anthony will review sub-consultant submissions for completeness with respect to the scope of work and will complete a cross check to endeavor to confirm that there are no significant inconsistencies in design work completed by different consultants. Erdman Anthony will also review sub-consultant submissions for conformance with their project specific Quality Work Plan (Peer Review) and will randomly spot check Sub-consultant plans and calculations to endeavor to verify that sub-consultant's own Quality Control process is delivering an acceptable quality level.

7. Permitting

Permit applications will be prepared for the Army Corps of Engineers and the Florida Department of Environmental Protection. Erdman Anthony will coordinate and assemble the documents for submittal. The documents will be prepared by our SBE sub-consultant Alan Gerwig & Associates as described in their proposal attached with the guidance and support of the biologist as described in task 8.

8. Habitat Survey and Permit

Conduct a submerged resource survey to identify submerged resources by species, size and coverage in accordance with the NMFS Johnson's seagrass survey protocols. Prepare the permit applications including impact, minimization, field meeting with the agency, WRAP/UMAM analysis, and negotiating the credits required to offset the impacts. This task will be provided by our DBE sub-consultant Scheda Ecological. See their proposal attached.

9. Opinion of Probable Cost

Erdman Anthony's structural engineers will provide an opinion of probable cost for the City. Any opinions of cost will be based on standard engineering practice. Erdman Anthony has no control over the pricing in the marketplace and Erdman Anthony cannot guarantee that the City will obtain these costs at the time of bidding.

10. Meetings

The design team will assist the City in public meetings by providing the following: prepare presentations, attend, make presentations, assist with answering public questions, collect a list of attendees, and prepare meeting minutes. Up to two public meetings are included. A color rendering of the proposed bridge will be included as an expense should the City desire to provide that image to the public. Additionally, the design team will meet with the City to review the project, discuss design decisions, discuss City comments, etc. Up to two such progress meetings are included.

11. Landscape Architecture

The services of a SBE landscape architect will be used to assist with the design of the hardscape of the bridge so that the appearance of the span mimics the existing structure, to the extent possible while still meeting current criteria. This includes replacing the existing planters, planting hedge material, and installing irrigation for the planters. This task will be provided by our SBE sub-consultant Wayne Villavaso. See their proposal attached.

12. Project Management

Erdman Anthony will coordinate the design team and plans production efforts.

Assumptions

- The survey provided by the City will be used as the basis for this design. Should additional land surveying data be needed, the City will obtain that data.
- The City will obtain any needed easements, including the easement document, sketch and legal descriptions, and coordination with the property owner. If needed, any eminent domain procedures will be provided by the City.
- Permit application fees will be paid by the City.
- Optional Environmental Services, if needed, to develop a mitigation plan to offset unavoidable impacts to seagrass resources, or draft a coral relocation plan are not included. These services may be desired by the City if the mitigation credits are deemed more costly than self-performing relocation efforts. This task will be provided by our SBE sub-consultant Scheda Ecological under a separate work authorization.
- Erdman Anthony may rely upon the accuracy and completeness of any information, requirements, reports, data, surveys, and instructions provided by Client unless the Proposal expressly states otherwise.
- Erdman Anthony shall use that degree of usual and customary professional skill and care ordinarily exercised by members of its profession under similar circumstances practicing in the same or similar locality at a similar time.
- Erdman Anthony will be promptly paid for services performed.
- Governmental Review – All plans and reports prepared by Erdman Anthony under this Agreement will be in sufficient detail for review by the government agencies. However we cannot guarantee approvals or that permits will be issued.
- Opinions of Probable Cost – Erdman Anthony will provide an opinion of probable cost. Any opinions of cost will be based on standard engineering practice. Erdman Anthony has no control over the pricing in the marketplace and cannot guarantee that Client will obtain those costs at the time of bidding.

Our work product is our plans as printed, signed and sealed. Erdman Anthony agrees to release two dimensional CADD files to the Owner or other team members for their convenience and use. CADD files are not intended to replace the printed form of such documents. Erdman Anthony will be responsible for obtaining a standard release from the recipient of any CADD files. Our CADD files are working drawings and may contain information not shown on the final or permitted prints. Therefore, the recipient shall be solely responsible for comparing the CADD file with the printed documents designated by Erdman Anthony as final deliverables and determining the accuracy of such files. Should the recipient desire a "sanitized" version of the CADD file, that service can be provided to them at a nominal fee. Delivery of the electronic files is not a sale, and Erdman Anthony is not liable for any loss of profit or any consequential damages as a result of use or reuse of these files.

The Client understands that the design effort is a unique, one-of-a-kind, first time effort and not a product that has been repeatedly manufactured and refined in advance of construction and agrees that a contingency will be budgeted for changes and corrections during construction due to inconsistencies in the construction documents.

Compensation

Erdman Anthony proposes to complete the above described scope of services as follows:

| Task | Description | Fee | Billing Method |
|------|--------------------------------|----------------|----------------|
| 1 | Geotechnical exploration | \$20,646 | fixed fee |
| 2 | Bridge design | \$141,700 | fixed fee |
| 3 | Maintenance of Traffic concept | \$8,300 | fixed fee |
| 4 | Utility plans | \$13,920 | fixed fee |
| 5 | Roadway approach plans | \$13,920 | fixed fee |
| 6 | Quality assurance review | \$17,000 | fixed fee |
| 7 | Permitting | \$14,800 | hourly |
| 8 | Habitat survey and permitting | \$23,020 | hourly |
| 9 | Cost Estimate | \$17,000 | fixed fee |
| 10a | Public meetings | \$5,200 | hourly |
| 10b | Progress meetings | \$1,800 | hourly |
| 11 | Landscape Architecture | \$5,200 | hourly |
| 12 | Project management | \$7,000 | fixed fee |
| 13 | Expenses | <u>\$3,400</u> | actual |
| | TOTAL | \$292,906 | |

Services shall be charged by task on either an hourly rate basis in accordance with the hourly rate schedule in our contract, or for a fixed price. Hourly services may show an estimated amount; this is not a maximum fee, it is an estimate for budgeting purposes that is based on our best estimate of the effort required. Work dependent on others such as review by permit agencies, responding to their comments, reviewing construction contractor work, etc. involves a number of factors that are outside our control; therefore, these services will be billed at our hourly rates and the amounts shown are estimates only and additional charges will apply if those budgets are exceeded. We will keep you advised about the status of the budgeted amounts on each monthly invoice and alert you to any items approaching the budget limit.

Brynt Johnson
RE: Singer Island
April 21, 2017
Page 5 of 5

Schedule

Erdman Anthony will begin work on the project after receipt of a fully executed agreement. At that time, we will prepare a schedule and provide it to you for your review and concurrence. This proposal anticipates that all design services will be complete by December 31, 2017; should the contract services extend past that date, the lump sum amounts shown may be adjusted for an escalation in rates.

Proposal Acceptance

This is a supplemental to our purchase order dated July 8, 2015 and subject to the conditions of our agreement dated May 6, 2015. Receipt of an original signed copy of this letter or a purchase order shall constitute Erdman Anthony's Authorization to Proceed with the work. We appreciate your time and consideration in reviewing our proposal. If you have any questions or require additional information, please contact me at 561-308-04546. We look forward to working with you and continuing our successful relationship.

Sincerely,
ERDMAN ANTHONY



Dana I. Gillette, PE, PSM, LEED AP
Principal Associate

Attachments: Radise proposal
Gerwig proposal
Scheda proposal
Villavaso proposal

N:\60265-01-SingerIsland\Admin\Proposal\Rev 2 bridges\042117 version 4\singer island neighborhood rehab 042117.docx
© 2017, Erdman Anthony

Accepted for Client By:

SIGNATURE: _____

NAME (PRINTED): _____

TITLE: _____

DATE: _____

| Erdman Anthony Singer Island Neighborhood Rehab | | LABOR | | | | | | | TOTAL STAFF- HOURS | COST PER TASK | Remarks |
|--|----------------------------------|-----------------------|--------------------|------------|--------------------|-----------------------|------------------------------|-------------|-----------------------|--|---------|
| | | \$175 | \$160 | \$125 | \$110 | | | | | | |
| | | Number of Man-hours | | | | | | | | | |
| | ACTIVITY DESCRIPTION | Principal Engineer | Senior Engineer | Engineer | Senior Designer | Subconsultant Cost | Subconsultant Description | | | | |
| 1 | Geotechnical exploration | 0 | 0 | 4 | | \$20,146 | Radise | 4 | \$20,646 | coordinate sub | |
| 2 | Bridge design | 0 | 0 | 20 | | \$139,200 | Gerwig | 20 | \$141,700 | coordinate sub | |
| 3 | Maintenance of Traffic concept | 4 | 20 | 0 | 40 | \$0 | | 64 | \$8,300 | prepare concept plan, notes, details | |
| 4 | Utility plans | 20 | 0 | 20 | 72 | \$0 | | 112 | \$13,920 | modify plan sheets, coordinate 6 utilities (water and force mains, FPL, Bell South, CATV, Gas) | |
| 5 | Roadway approach plans | 20 | 0 | 20 | 72 | \$0 | | 112 | \$13,920 | prepare plan set: cover, notes/legend, typical sections, key map, swppp, existing conditions, plan/profile, details, signing/marketing, cross sections | |
| 6 | Quality assurance review | 24 | 80 | 0 | 0 | \$0 | | 104 | \$17,000 | review bridge design and plans | |
| 7 | Permitting | 16 | 0 | 20 | 0 | \$9,500 | Gerwig | 36 | \$14,800 | prepare and/or assemble permit documents | |
| 8 | Habitat survey and permitting | 4 | 0 | 8 | 0 | \$21,320 | Scheda | 12 | \$23,020 | coordinate sub | |
| 9 | Cost Estimate | 24 | 80 | 0 | 0 | \$0 | | 104 | \$17,000 | | |
| 10a | Public meetings | 24 | 0 | 8 | 0 | \$0 | | 32 | \$5,200 | two meetings | |
| 10b | Progress meetings | 6 | 0 | 6 | 0 | \$0 | | 12 | \$1,800 | two meetings | |
| 11 | Landscape Architecture | 0 | 0 | 4 | 0 | \$4,700 | Villavaso | 4 | \$5,200 | coordinate sub | |
| 12 | Project management | 40 | 0 | 0 | 0 | \$0 | | 40 | \$7,000 | | |
| 13 | Expenses | | | | | \$3,400 | | 0 | \$3,400 | prints, mileage, rendering | |
| | TOTAL | 182 | 180 | 110 | 184 | \$198,266 | | 656 | \$292,906 | | |
| | Percentage of Grand Total | 28% | 27% | 17% | 28% | 68% | | 100% | | | |
| | Erdman Anthony | | | | | \$98,040 | | 33% | | | |
| | SBE Sub Consultant | | | | | \$153,400 | | 52% | | | |
| | DBE Sub Consultant | | | | | \$41,466 | | 14% | | | |

April 27, 2017

**Singer Island Structural Design Services
Island Drive and Grand Bahama Lane**

In-Kind Structure Replacement: Design replacement Structures over Intracoastal Waterway at Island Drive and Grand Bahama Lane

Provide design services required to prepare construction documents and specifications for the replacement of the six existing structures over the Intracoastal Waterway including the portion of two existing seawalls located between the bridges on Island Drive. The attached exhibit depicts the structural components that are included in the scope of work for this project.

Structural Aesthetics and Public Meetings

Advise and coordinate with architect on development of the structural components to satisfy community requirements for a replacement structure that closely resembles the existing structures in scale and affect. This item includes up to 3 meetings with the design team and city staff.

Attend one public community meeting with the design team and City staff assist with presentation and answer questions from the community. Presentation graphic are not included, and are to be prepared by others. AGA will assist by providing content such as photos, descriptions, and sketches.

Typical Section

Develop bridge typical section based on the roadway approach typical section provided by Erdman Anthony. Bridge Typical section will be submitted for review and approval prior to commencement of design services.

AGA will provide the estimated pile bearing requirements to the geotechnical engineer for development of a foundation recommendation report that includes evaluation of 14” and 18” square prestressed concrete piles.

The replacement structures will be a single span structures consisting of a pile bent foundation supporting a prestressed deck slab superstructure conforming to the approved typical section. The bridge location and geometry will closely resemble the existing configuration in that the replacement structures will include islands created by the installation of seawalls containing earthen fill similar to the existing configuration in the center of the waterway channel. Dry conduits will be provided within the sidewalks or traffic barrier to accommodate future utilities. Support of wet utilities will be coordinated with the City's utility department.

The bridge design will be in accordance with the following current AASHTO LRFD and FDOT design specifications.

- AASHTO LRFD Bridge Design Specifications, 2014.
- FDOT Structures Design Guidelines, 2016.
- FDOT Design Standards, 2016.
- FDOT Standard Specifications for Road and Bridge Construction 2016.

The design will include the structure load rating calculations on the final design.

Traffic barrier end treatments at the four corners of the structures will connect to existing seawalls within the City's right-of-way limits. Guardrail, if required adjacent to the bridge approaches will be coordinated with the highway design. No earthwork is anticipated in the channel proper.

Replacement walls for the existing seawalls in the median on east and west edges of the channel will be designed to replace the existing walls at the Island Drive crossing.

Maintenance of traffic considerations are as follows:

Island Drive: Island Drive is a divided roadway. The existing structures will be replaced in pairs comprised of the two consecutive structures making up one lane of traffic being replaced simultaneously while traffic is utilizing the other two structures for ingress and egress to the affected community. Once the first two structures are completed traffic will be shifted from the existing structures to the newly constructed structures and the remaining two structures will be demolished and replaced. Only one lane of traffic will be open during construction which will require a temporary traffic signal to control the one lane – two way traffic.

Grand Bahama Ln.: The structures will be constructed in phases providing for partial removal of the existing structures leaving it open to one lane of traffic while the replacement structure is constructed in two phases. The first phase will include enough superstructure to accommodate one lane of traffic. When the first phase is completed traffic will be shifted to the new structure and the remaining portion of the new structure will be completed. This MOT phasing will require that traffic be reduced to one lane during construction. A temporary traffic signal will be necessary to control the one way traffic.

Peer Review: Peer review of the structural design will be provided by Erdman Anthony's structural design staff.

Permitting: Army Corp of Engineers and Florida Department of Environmental Protection

Permits applications and drawings of the planned improvements will be prepared for the above reference agencies and submitted for review and approval. Include data provided by environmental consultant if necessary as part of the permit package to the ACOE.

Plan Submittals

All plans will be prepared on 11"x17" sheets.

Plan review submittals will be made at 60%, 90% and 100%.

Quantities and cost estimates will be provided with the 90% submittal for the project.

Project Assumptions:

1. No existing structural components will be utilized or remain in service because of this project.
2. Geotechnical: The geotechnical investigation for this project will be provided by others. The geotechnical investigation will provide the data and recommendations required for the design of the replacement structure foundations and seawalls.
3. Land surveying services will be provided by others.
4. The size and location of the culvert in the seawall replacement option will be sized by inspection and approved by the City.
5. MOT plans and utility relocation plans will be prepared by Erdman Anthony.
6. Permit application and review fees are not included.

Project Deliverables:

Four copies of the phase and final drawings will be submitted for review and comment.

Following the review and approval of the 100% submittal, final plans will be submitted in hard copy and electronically in pdf format. Four hard copies of the final plans will be provided, including one set signed and sealed.

Lump Sum Design Fees

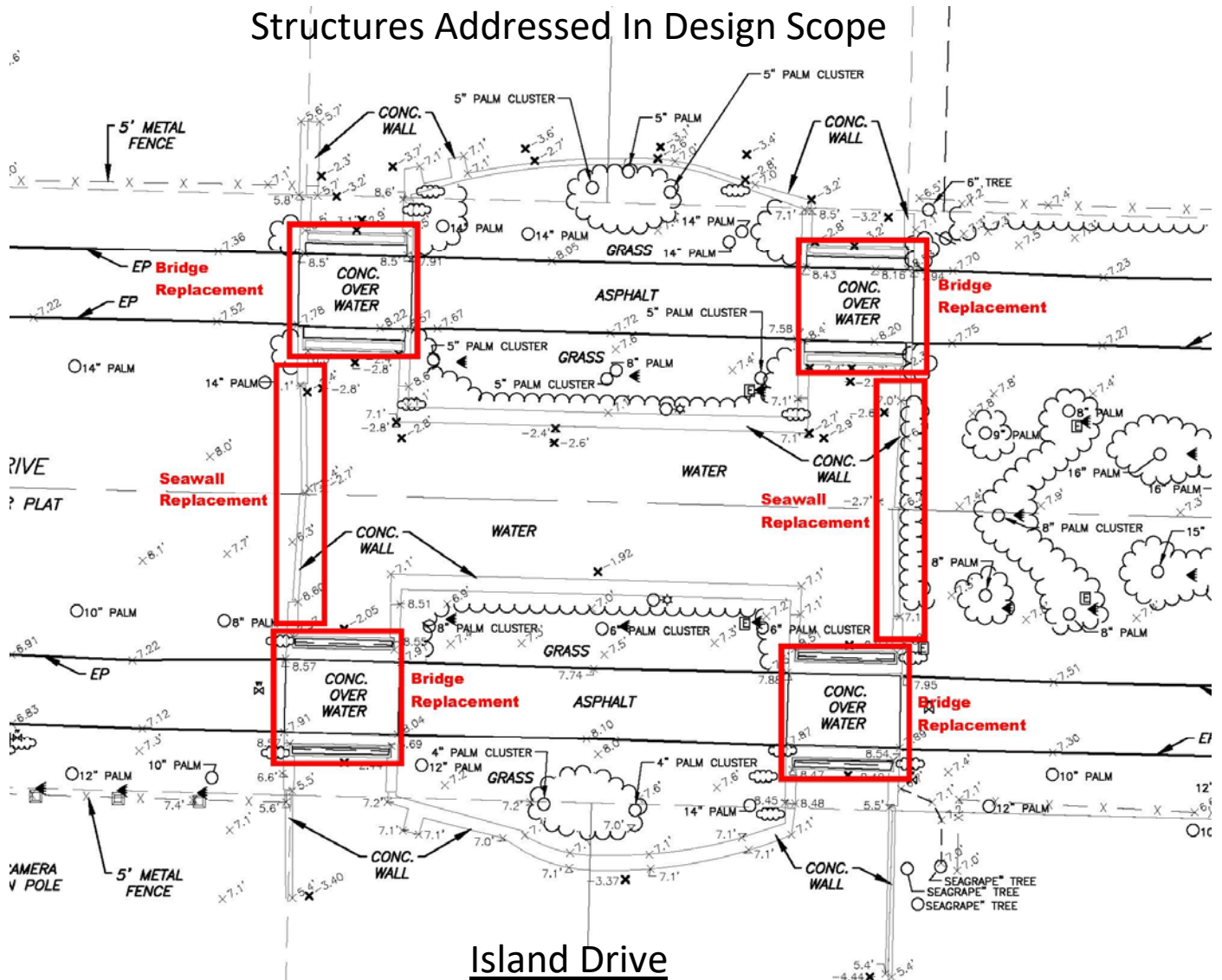
In-Kind Structure Replacement Design Fees

| | |
|-------------------------------------|-----------------|
| Island Drive Structures | \$77,500 |
| Grand Bahama Lane Structures | \$61,700 |
| Permitting | \$9,500 |

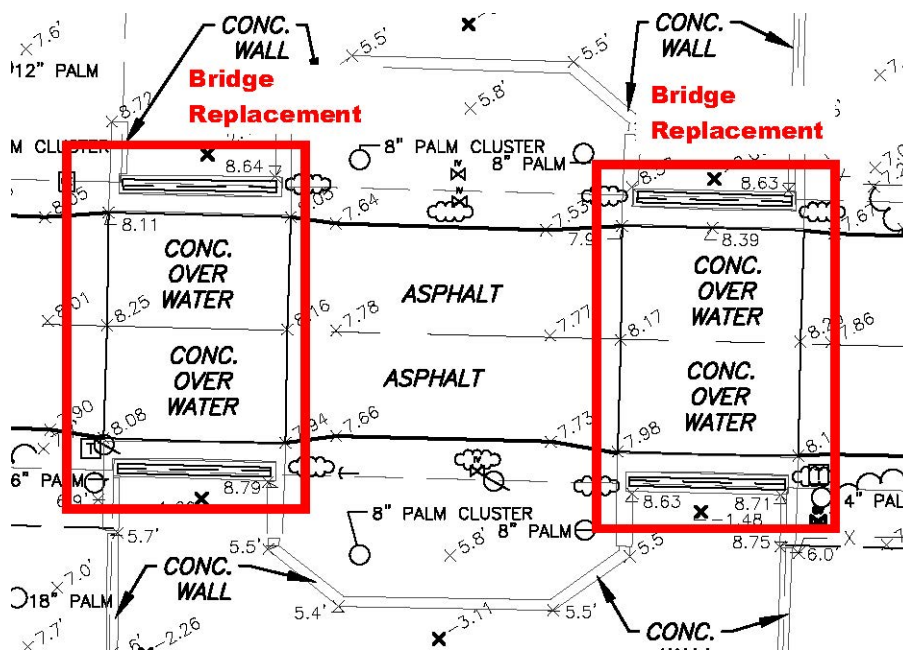
The above fees are based on both design options being contracted together.

Exhibit

Structures Addressed In Design Scope



Island Drive



Grand Bahama



April 24, 2017

Erdman Anthony
Attn: Ms. Dana Gillette, PE
5405 Okeechobee Blvd., Suite 200
West Palm Beach, Florida 33417

Phone: (561) 753-9723
Cell: (561) 308-0546
Email: gilletted@erdmananthony.com

Revised Proposal for Additional Geotechnical Drilling and Laboratory Services
West and East Bridges
Neighborhood Improvement Project
Bridge Replacement
Riviera Beach, Florida

LAB CERTIFICATIONS



Certified



Approved



Validated

CTQP CERTIFIED

TEAM

USACE Certified QA Managers

Dear Ms. Gillette,

RADISE, International, LC. (RADISE) is pleased to submit this proposal to provide geotechnical services for the above referenced project. The proposal was prepared in accordance with your original March 24, 2016, request and recent discussions this morning with Alan Gerwig & Associates Inc.

INTRODUCTION

We understand that City of Riviera Beach plans to potentially replace the existing bridges at 1): the northeast entrance of the Palm Beach Isles (i.e. four short bridge sections), Singer Island neighborhood and 2): an interior bridge (i.e. two short bridge sections) that exists within the neighborhood. It is understood the neighborhood residents want the existing bridges replaced with convention bridges supported on piling foundations. Because of the nature of the residential occupancy surrounding the bridges, both driven and augercast-in-place piling will be considered and evaluated for the bridge replacements.

Field exploration and laboratory testing services will be required to explore the subsurface conditions for the proposed bridge replacement sites.

Our geotechnical services will be performed in general accordance with the FDOT *Soils and Foundations Handbook (2014)* for roadway and bridge construction, and will include both geotechnical field services and laboratory testing programs, along with brief literature reviews

including the *Soil Survey of Palm Beach County Area, Florida*, published by the USDA, and a review of the USGS quadrangle survey maps for the project site, to provide geotechnical recommendations for this project.

SCOPE OF WORK

The scope of work that we propose to undertake for the project will involve the following tasks:

1. Perform underground utility clearance through Sunshine State One Call of Florida.
2. Layout of the soil boring locations in the field.
3. Mobilization of a truck-mounted drill rig and crew to the project site.
4. Set up basic maintenance of traffic (MOT) at the work areas for traffic control and safety (i.e. signs and cones).
5. Performing four (4) Standard Penetration Test (SPT) soil borings (ASTM D-1586) to depths of 60 up to 75 feet. Previous explorations in the general vicinity of the island area, have previously indicated that sound limestone bedrock may be encountered at the site which may allow borings to be shortened while still providing sufficient embedment length.
6. Visual Classification of soil samples in accordance with the Unified Soil Classification System (USCS).
7. Perform laboratory testing including visual classification in accordance with the Unified Soil Classification System (USCS) by a RADISE Geotechnical Engineer of all the soil samples recovered. In addition, grain-size analyses tests, percent passing the #200 (P200) sieve, moisture content determination, organic content and corrosion series tests will be performed on a representative number of samples to estimate the physical properties of the soil.
8. Preparation of a Geotechnical Report providing the results of the field exploration; observed site conditions; observed sub-soil conditions including groundwater, and symbols of soil materials in subsurface profile format, relevant to the project. We will provide foundation design and construction recommendation and perform foundation analyses for the proposed bridge replacement. The foundation analyses and recommendations to be provided will included an option for either traditional driven PPC piling or Augered Cast-in-Place (ACIP) piling.

SCHEDULE AND COMPENSATION

We are available to mobilize our equipment to the site within a few weeks following your authorization to proceed, pending utility clearances and any applicable permitting. We estimate to complete the field and laboratory work within two weeks after the start of drilling, and provide the written report with our recommendations within approximately six weeks of authorization to proceed.

We have estimated the cost for performing the proposed scope of work within the indicated time frame at **\$20,916.00**, broken down as shown in the attached Fee Estimate.

RADISE appreciates the opportunity to submit this proposal, and look forward to the opportunity of working with you. If you have any questions or would like to discuss the details of this proposal, please do not hesitate to give us a call at (561) 841-0103.

Sincerely,

RADISE International
Infrastructure Engineers • Software Developers



Min Sang Lee
Project Engineer



Thomas F. Mullin, PE
V.P. Chief Engineer & Geotechnical
Services Group Manager

Attachment: Fee Breakdown – 4-24-17

Agreed to this _____ day of _____, 2016

Name

Title

Company



N

Google earth

B-2 (20' SPT & Auger)

B-1 East Bridge

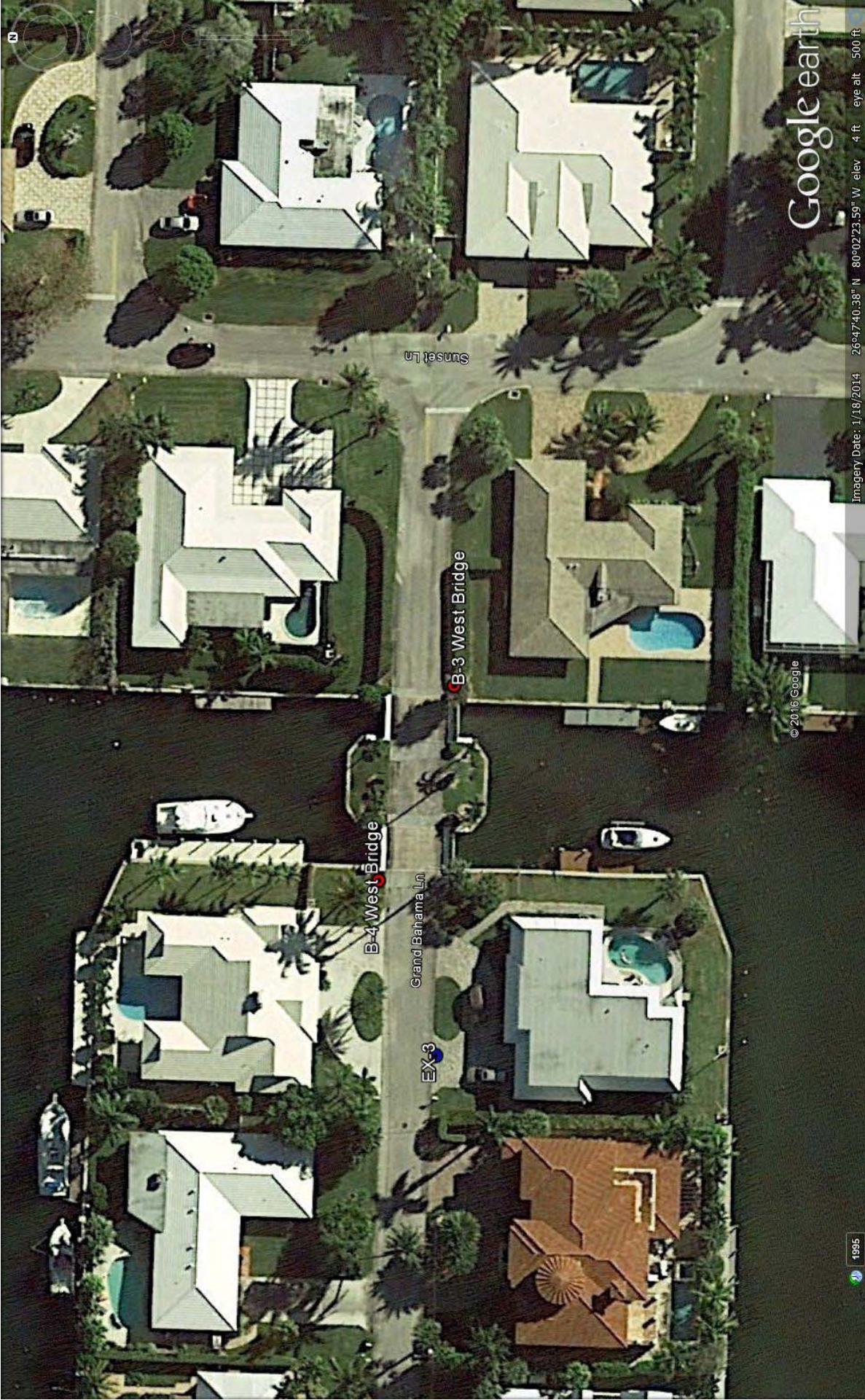
B-2 East Bridge

Island Dr

© 2016 Google

1995

Imagery Date: 1/18/2014 26°47'39.66" N 80°02'06.39" W elev 2 ft eye alt 545 ft



Google earth

Imagery Date: 1/18/2014 26°47'40.38" N 80°02'23.59" W elev 4 ft eye alt 500 ft

© 2016 Google

1995



April 28, 2017

Dana Gillette, PE
Erdman Anthony
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
GilletteD@erdmananthony.com

Re: BASIC SERVICES - SCOPE OF WORK & ASSOCIATED FEE ESTIMATE
Island Drive & Grand Bahama Lane Bridge Replacements
City of Riviera Beach, Palm Beach County, Florida
Scheda Proposal No. 003609.20.P

Dear Ms. Gillette:

Scheda Ecological Associates, Inc. (Scheda) is pleased to submit this scope of services and fee estimate to assist with the environmental permitting efforts for the replacement of six (6) bridges located along Island Drive & Grand Bahama Lane Bridge within the City of Riviera Beach. We understand that the work will consist of replacing the existing bridges. Scheda's tasks will include delineating all benthic resource areas (corals, seagrass, oyster reefs) within and adjacent to the project area, assistance with environmental permitting through Federal, state, and local regulatory agencies, and coordination with the regulatory agencies.

SCOPE OF SERVICES

Task Description

1. BENTHIC HABITAT SURVEY

Prior to conducting a site reconnaissance, all readily available existing permit, protected species, benthic resource data available for the project vicinity will be collected and reviewed. This data will be used to draft the environmental support document to be included in the environmental permit application packages and consist of the following:

- a. USGS 7.5-minute quadrangle mapping;
- b. South Florida Water Management District's Florida Land Use Cover and Forms, Classification Systems (FLUCFCS);
- c. Current aerial photography;
- d. Florida Master Site File review for known historic and archaeological sites;
- e. Protected Species data: Florida Native Areas Inventory (FNAI) via letter request, United States Fish and Wildlife Service, (USFWS), and Florida Fish and Wildlife Commission (FWC);
- f. National Wetland Inventory mapping (NWI).

Scheda will conduct a submerged resources survey over a one (1) day period by providing two (2) scientists that are each certified SCUBA divers. Scheda scientists will identify areas of submerged resources, by species type, size, and coverage, within the project area. The survey will be conducted in accordance with NMFS Johnson's seagrass survey protocols. Scheda will provide field equipment such as SCUBA gear, an underwater camera, and Trimble GPS unit. Upon

completion of the field survey, Scheda will provide a map depicting the boundaries of any identified protected submerged resource areas (i.e. seagrass beds, hard corals and octocorals, oyster reefs), the locations of any identified hardbottom areas, and photographs depicting the typical conditions of each identified resource area. A summary document detailing the results of the field effort will be included in the Environmental Support Document listed in Task 2 below. All shapefiles depicting the locations/boundaries of identified natural resource areas will be provided to the client.

2. ENVIRONMENTAL PERMIT APPLICATION SUPPORT

Scheda will support Erdman Anthony during the environmental permitting through the following efforts:

- a. Compiling the Purpose and Need statement in sufficient detail to support the permit application. This documentation will include the development of tables and or graphics sufficient to explain the City's position that bridge replacement is needed;
- b. Compiling the Impact Minimization text in sufficient detail to support the permit application;
- c. Drafting an Environmental Support Document, to be included in the permit application packages, that summarizes the environmental conditions on-site, impact avoidance/minimization efforts considered, and all associated figures (maps for land use, benthic resources, etc.);
- d. Lead one (1) on-site field review with the regulatory agencies;
- e. Complete a WRAP/UMAM analysis to determine the amount of functional loss for any impacts to seagrass resources and the amount of mitigation needed;
- f. Coordinate with regulatory agencies to determine the amount of credits needed to sufficiently offset project impacts; and
- g. Assist in the preparation of any environmental related RAI items that may be issued.

3. MEETING ATTENDANCE

Scheda will attend the following environmental permitting related meetings:

- One (1) pre-application meeting with FDEP;
- One (1) pre-application meeting with USACE and NMFS;
- Two (2) request for additional information (RAI) clarification meeting with either of these regulatory agencies.

FEE ESTIMATE

The fee estimate totals **\$21,320.00** and will be considered a lump sum fee estimate, which will not be exceeded without prior written authorization from the client. The project will be billed monthly based upon the percentage completion of the fee.

Please note that the following assumptions were used in developing this lump sum fee estimate. If additional work time is required due to the inaccuracy of these assumptions or future changes in scope, the client will be notified prior to the work being performed. Written authorization will be obtained from the client prior to performing the work.

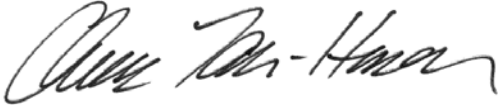
1. Survey, engineering, and geotechnical services are to be provided by others.
2. The survey areas will be limited to a 50-ft swath surrounding the six (6) bridge sites.
3. All permit fees will be provided by others.
4. This scope does not include compensatory mitigation or relocation of benthic resources

(corals, seagrass, oyster reefs). These tasks shall be covered under Optional Services.

If these terms and conditions are satisfactory, please authorize the work by signing below and returning one copy to our office within 30 days of the date first written above. Upon receipt of such signature, this document shall constitute a binding Agreement.

Thank you for the opportunity to provide this scope and fee. Please contact me at (561) 865-7749 if you have any questions or require additional information.

Sincerely,
Scheda Ecological Associates, Inc.



Claus Hansen, MS
Interim Southeast Florida Regional Manager

The above terms are accepted as stated on this _____ day of _____, 2017.

Signature _____ Title _____

Printed _____

Witness _____

Exhibit B

| Consultant's Hourly Rate Schedule - Wayne Villavaso Landscape Architecture, Inc. (WVLA) | | | | | | | | | | |
|--|------------|-------------|-----------|------------------|---------|---------|----------------------|---------|------------|-------------|
| Project: Palm Beach Isles - Bridges (4 - 1 lane & 2 - 2 Lane Bridges) | | | | | | | | | | |
| Client : Erdman Anthony | | | | WA # / Proj. No. | | | WVLA Proj. No. 21724 | | | |
| EA Engineering Contract | | | Date: --- | | | | | | | |
| FIRM | Hrly. Rate | Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5 | Phase 6 | Phase 7 | Total Hrs. | Total Cost |
| WVLA | | | | | | | | | | |
| Sr. Landscape Arch. (Lic.) | \$ 160.00 | 11 | | | | | | | 11 | \$ 1,760.00 |
| Landscape Arch. (Lic.) | \$ 130.00 | 10 | | | | | | | 10 | \$ 1,300.00 |
| Sr. Cadd Technician | \$ 85.00 | 14 | | | | | | | 14 | \$ 1,190.00 |
| Administrative Assist. | \$ 55.00 | 7 | | | | | | | 7 | \$ 385.00 |
| Est. Reimbursables | | | | | | | | | | \$ 65.00 |
| Sub-total | | \$ 4,635.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ 4,635.00 |
| TOTAL | | \$ 4,635.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | | \$ 4,700.00 |

Phase 1 - CD's - Landscape & Irrigation Plans, 5 Hrs. Max. Hardscape Assistance (Includes 1 Mtg w/ HOA, & 3 Hrs. Prof. Coord./Telecoms)

Two (2) 18x24 Color Perspective Renderings =- \$1,900 (Addition to above Fees)

Contract Time for Completion: ____ days from Notice to Proceed

Payment Schedule: Project will be billed per Phases above w/ Reimbursable expenses to date and paid within 30 Days

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