

**Date:** October 20, 2014

**To:** Gary T. Hartfield, Division Director  
Small Business Development Division  
Internal Services Department

**From:** Alejandro Martinez-Esteve, RA, LEED AP  
Manager, Capital Improvements Section  
Public Works and Waste Management Department

**Subject:** Recommendation for Non-exclusive Professional  
Services Agreement for Bond Engineering Services,  
Contract No. E14-PWWM-08,  
PWWM Project No. 20140151

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**RECOMMENDATION**

Public Works and Waste Management (PWWM), Capital Improvements Section staff is recommending a 5.0% Community Business Enterprise (CBE) participation goal and no Small Business Enterprise (SBE) participation goal. The total estimated cost for the project is \$3,000,000.00.

**BACKGROUND**

The Rickenbacker Causeway consists of approximately 1.2 miles of bridge structures – the West Bridge, the William Powell Bridge, and the Bear Cut Bridge and approximately 2.4 miles of roadway built on dredged fill with a toll facility at the western terminus. It has been operated as a toll road since its original opening in 1947 and is currently a one-way tolling facility.

**SCOPE OF SERVICES**

Miami-Dade County Public Works and Waste Management Department (PWWM) requires professional bond engineering services from a qualified consultant to fulfill and perform the duties of a bond consultant as set forth in Bond Ordinance No. 13-110 (Bond Ordinance), Sections 208, 405, 501, 510, 702, 704, and 712. The services of a bond engineer (Engineer) are required as part of each bond agreement and associated financing documents. The independent Engineer is required to act on behalf of the bond-holders to execute a scope of service that consists of, but is not limited to, the following:

- Perform Management Financial Consulting Services and review of the Rickenbacker Causeway's financial transactions and abilities, engineering decisions, and future plans.
- Perform an initial base line inspection of all the Rickenbacker Causeway facilities as identified in Exhibit A to document their condition and submit a report that indicates their

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condition based on ratings of poor, fair, good, or excellent; these ratings shall be used to determine if repairs are needed.

- Make recommendations for remedial action, if warranted, after each inspection of the Rickenbacker Causeway facilities identified in Exhibit A.
- Perform annual inspections of the physical conditions of the Rickenbacker Causeway facilities, and prepare separate reports of the physical condition of the roadway, bridges and toll facilities to include the following:
  - Conduct a detailed mile-by-mile visual inspection of the roadway, bridges, sidewalks, shoreline and public access beaches, drainage structures and all appurtenances thereto such as lighting, signage, pavement striping, and marking, entry and exit gates, toll plaza structures, buildings, public restrooms, and toll equipment. As a part of this inspection, photographs will be taken of problem areas that need continuous monitoring and/or corrective action.
  - Conduct, at minimum, a yearly structural inspection of bridges and submit the completed Engineer's inspection forms to PWWM along with the annual report that will summarize the Engineer's opinion concerning the conditions of the facilities.
  - Inspect structures located within the Rickenbacker Causeway inventory (Exhibit A) in compliance with federal regulations such as the National Bridge Inspection Standards, Code of Federal Regulations (CFR), Title 23, Part 650, Subpart C; Title XXVI, Section 335.074, Florida Statutes; State of Florida Department of Transportation Rules Chapter 14-48.0011, F.A.C., Inspection Bridges; and OSHA 29 CFR, Part 1926, Subpart C.
- Review the latest available bridge inspection reports prepared by the Florida Department of Transportation (FDOT) and any other agency.
- Generate recommendations, approvals, and/or certifications as required in the Bond Ordinance.
- Conduct annual Traffic and Revenue Study.
- Review and analyze, on a continuing basis, PWWM's monthly traffic revenue and expense statements for the Rickenbacker Causeway toll facility, as well as other traffic reports, information and data furnished by PWWM.
- Prepare and submit to PWWM bi-yearly 12 copies of a report of the traffic, operation and revenue aspects of the Rickenbacker Causeway toll facility; the reports shall compare the results of the current year's operation with the previous year's operation, as well as the

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forecasts contained in the Official Statement of Series 2013 Bonds or successors for the toll facility.

- Conduct a detailed annual inspection of beach erosion on the improved beaches within the public right of way on Hobie Island and Virginia Key and provide recommendations for corrective actions.
- Provide expert testimony in judicial or quasi-judicial proceedings regarding toll revenues and existing or proposed revenue producing facilities.
- Make recommendations for advisable revisions or modifications and determination of the amount that shall be deposited on an annual basis into the Renewal, Replacement, and Improvement Fund in accordance to Section 704 of the Bond Ordinance for inclusion in the Annual Budget.
- Make recommendations on the amount of insurance that PWWM should carry to cover replacement costs arising from damage to or destruction of part or all of the transportation facilities as defined by the Resolution in accordance with Section 706 of the Bond Ordinance and subsequent supplemental resolutions, comprehensive public liability insurance covering bodily injury and property damage, and any other coverage that PWWM may deem necessary.
- Prepare a Consulting Engineer's Report setting forth the findings by review of reports and site observations that the Rickenbacker Causeway has been maintained in good repair and working order, as well as provide advice on proper maintenance and operation.
- Attend meetings with PWWM staff, consulting engineers, officials of the Bond Finance Committee or any other person(s) as deemed necessary by PWWM upon request.
- Provide general engineering support for the Rickenbacker Causeway as needed, including, but not limited to, future bond feasibility report services, origin and destination studies, traffic surveys, financial feasibility study, and toll rate structure study.

**QUALIFICATIONS:**

1. Certifications:

- a. 3.02 Highway Design (PRIME)
- b. 3.04 Traffic Engineering Studies (PRIME)
- c. 3.03 Bridge Design
- d. 3.05 Traffic Counts
- e. 3.07 Traffic Signal Timing
- f. 3.09 Signing, Pavement Marking, and Channelization
- g. 3.10 Lighting
- h. 3.11 Signalization
- i. 3.12 Underwater Engineering Inspections
- j. 9.02 Geotechnical and Materials Engineering Services
- k. 10.10 Coastal Processes and Ocean Engineering
- l. 11.00 General Structural Engineering
- m. 12.00 General Mechanical Engineering
- n. 13.00 General Electrical Engineering
- o. 14.00 Architecture

2. Experience:

- a. The Prime must have a minimum of five (5) years of experience performing bond engineering services for a government entity, or for a comparable toll road with revenues in excess of \$10M annually, within the last ten (10) years from the date of this solicitation.
- b. The Prime and/or sub-consultants must have a minimum of five (5) years of engineering experience in the field of road and bridge inspection and maintenance within the last ten (10) years from the date of this solicitation.
- c. The Prime and/or sub-consultants must have a minimum of five (5) Traffic and Revenue Studies completed for a comparable toll road with revenues in excess of \$10M annually within the last ten (10) years from the date of this solicitation.

**Rickenbacker Causeway Bond Engineering Selection: Technical Certification Categories:**

<b>Cat.</b>	<b>Rickenbacker Causeway Bond Engineering Services</b>	<b>Perc.</b>	<b>Subtotal</b>
3.02	Highway Design (PRIME)	23%	\$690,000.00
3.04	Traffic Engineering Studies (PRIME)	23%	\$690,000.00
3.03	Bridge Design	10%	\$300,000.00
3.05	Traffic Counts	4%	\$120,000.00
3.07	Traffic Signal Timing	4%	\$120,000.00
3.09	Signing, Pavement Marking, and Channelization	3%	\$90,000.00
3.10	Lighting	4%	\$120,000.00
3.11	Signalization	3%	\$90,000.00
3.12	Underwater Engineering Inspections	15%	\$450,000.00
<b>9.02</b>	<b>Geotechnical and Materials Engineering Services</b>	<b>2%</b>	<b>\$60,000.00</b>
10.10	Coastal Process and Ocean Engineering	3%	\$90,000.00
11.00	General Structural Engineering	2%	\$60,000.00
12.00	General Mechanical Engineering	1%	\$30,000.00
<b>13.00</b>	<b>General Electrical Engineering</b>	<b>1%</b>	<b>\$30,000.00</b>
<b>14.00</b>	<b>Architecture</b>	<b>2%</b>	<b>\$60,000.00</b>
<b>Total</b>			<b>\$3,000,000.00</b>

**Recommended CBE Participation: 5%**  
**Recommended SBE Participation: 0%**

The prime consultant must hold Technical Certifications 3.02 – Highway Design and 3.04 – Traffic Engineering Studies. Interested Professional Firms (Consultants) shall be certified by the County at the time of qualifications submittal in the Technical Certification Categories identified above.

The Prime consultant and/or sub-consultant with a current agreement or an open work service order with PWWM for design and/or construction management services for the Rickenbacker Causeway will not be considered for award under this solicitation. In addition, the Prime consultant and/or sub-consultant selected for this solicitation will not be allowed to propose or be considered for any design projects for the Rickenbacker Causeway for PWWM during the effective term of this Bond Engineering Services agreement.

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If any additional information is needed, please call me at (305) 375-2930, or James Ferreira at 305-375-3267.

AME/jpf

Attachments (1)

C: Laurie Johnson, ISD/SBD  
Alice Hidalgo-Gato, ISD/SBD  
Vivian Forhat-Diaz, ISD/SBD  
Mike Bauman, PWWM  
James Martincak, PWWM  
Bassam Moubayed, PWWM  
James P. Ferreira, P.E, PWWM  
File.

Gaspar Miranda, P.E., PWWM  
Leandro Ona, P.E., PWWM  
Javier Heredia, P.E., PWWM  
Alfredo Munoz, P.E., PWWM  
Luis O. Perez, P.E., PWWM  
Marcos Redondo, P.E., PWWM  
Faith Samuels, ISD