

# Memorandum



**Date:** May 12, 2016

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

**From:** Lester Sola, Director  
Miami-Dade Water and Sewer Department 

**Subject:** Review Item: Design-Build Services for the Construction of a New Drinking Water Laboratory Building at the Alexander Orr, Jr. Water Treatment Plant-  
Project No. DB16-WASD-02

It is recommended that the Small Business Development Division of the Internal Services Department review the attached request for Small Business Enterprise (SBE) measures for Architectural and Engineering (A/E), Construction and Goods and Services (G/S) for the above subject project, in order to proceed with the advertisement and subsequent Design-Builder selection for this project.

The duration of the proposed Design-Build contract is 960 calendar days. The total maximum compensation for the Design-Build contract is **\$7,192,306**, which includes the following:

- \$5,088,669 estimated construction cost
- \$ 891,996 estimated engineering and architecture services
- \$ 254,434 construction contingency fee (5%)
- \$ 89,200 engineering contingency fee (10%)
- \$ 76,330 art in public places (1.5%)
- \$ 639,018 dedicated allowance (Mark-Ups, Administration)
- \$ 152,660 permitting fees (3%)

The scope of services shall include, but is not limited to, surveying, geotechnical investigations, engineering, programming, engineering and architectural design, technical specifications, construction drawings and documents, permitting, construction, construction management, coordination, testing and commissioning services of the new Drinking Water Laboratory to replace the existing undersized and deteriorated laboratory. The design and construction services rendered by the Design-Builder shall result in a complete, functional and operable Drinking Water Laboratory to house a total staff of twenty (20) people and twelve (12) visitors. The new Drinking Water Laboratory facility shall include:

- Parking for thirty-two (32) vehicles, six (6) county cars and three (3) golf carts with canopy-covered and battery-charging stations, landscaping and amenities, all within the delineated site plan attached;
- Foundations, structural walls, roof, windows, doors, interior and exterior finishes;
- Laboratory spaces with laboratory cabinets, laboratory sinks, installation of the Water and Sewer Department (WASD) supplied laboratory refrigerators and laboratory equipment;
- Moving and installing equipment from the existing laboratory to the new laboratory;
- Performing relocations of equipment from the existing laboratory, including disconnecting, loading, transporting, coordinating, installing and unloading this equipment in the designated location;

- Miscellaneous utilities coordination for laboratory use, including gases, deionized and demineralized water, regular water, drainage, sanitary sewer, polished water and laboratory water systems;
- Electrical system to include power and lighting, telephone, voice, data and negotiating and coordinating with Florida Power and Light;
- Ventilation special heating, ventilation, general air conditioning needs and separate air conditioning system for laboratory spaces with one hundred percent (100%) outside air including ducting of air removal (no plenum use);
- Construction of offices, storage areas, men and women lavatories, dress/undressing area, locker room area, lunch room and a standard preparation storage area;
- Mechanical air conditioning spaces, electrical and uninterrupted power supply room, phone and computer server rooms, receiving area, foyer entry area, delivery entrance, three (3) administration offices, a secretary's area, a conference room, one (1) microbiology laboratory, a chemical storage area, a dry storage area, a records storage area, a chemical waste space, a laboratory water space with delivery and pickup access from the delivery area and one (1) area for laboratory gases with access for delivery and pickup;
- Two (2) mass-spectrometer gas-chromatograph laboratories;
- A standard preparation storage area;
- Three (3) wet chemistry general laboratories, to include one (1) general wet chemistry space, one (1) solution preparation space and one (1) wet chemistry instrumentation space;
- Asphaltic pavement, concrete sidewalks, concrete curbs and gutters, trees, landscaping, sod, pavement markings, traffic and directional signs;
- Designing and constructing a sewage pump station, connection to water and sewer; and
- All other appurtenant and miscellaneous items and work for a complete and fully functional installation of a Drinking Water Laboratory located in the Alexander Orr, Jr. Water Treatment Plant.

The Design-Builder shall complete the Project as follows, which excludes the warranty administration period:

Substantial Completion shall be on or before 900 calendar days after the date of Notice to Proceed which requires placing into service a new drinking-water-testing laboratory and shall include all work associated with surveying, geotechnical investigations, engineering, design, technical specifications, permitting, construction, testing and commissioning services for the complete and fully operational installation of the new drinking-water-testing laboratory. Substantial Completion shall occur when the Project is in a state which is fit for the use or operation intended except for minor items identified and has a Certificate of Occupancy (CO). Final Completion Date for the drinking-water-testing laboratory (Final Completion and Project Closeout) on or before 960 calendar days after the date of Notice to Proceed, which requires:

1. Construction of a new drinking-water-testing laboratory, which shall include all work associated with stake-holder contact, negotiation and agreement execution; engineering, design, permitting, construction, testing, commissioning services and restoration within the construction site and surrounding areas. The Work shall include furnishing, installing and testing all required equipment, appurtenances and accessories for the new drinking-water-testing laboratory.
2. Final Completion and Project Closeout shall include obtaining acceptance and approvals by all applicable regulatory agencies, including WASD, of all Work and Services under the Contract, and shall include all remaining site restorations, record documents and all other

remaining incomplete or unacceptable work items identified at or subsequent to Substantial Completion.

If the Design-Builder does not achieve Substantial Completion by the established Substantial Completion contract date, Liquidated Damages (LDs) will be assessed in the amount of two thousand five hundred dollars (\$2,500) per calendar day, which will be paid to the County by the Design-Builder. If the Design-Builder does not achieve Final Completion by the established Final Completion contract date, LDs will be assessed in the amount of one thousand dollars (\$1,000) per calendar day, which will be paid to the County by the Design-Builder. LDs will be cumulative if both the Substantial Completion contract date and the Final Completion contract date are exceeded. All assessments of LDs to the Design-Builder may be adjustments to payments due to the Design-Builder.

Firms providing engineering services must be certified in the following technical categories and the respective percentages of the disciplines as indicated below:

Technical Category	Engineering Activity Description	Total Percentage	SBE A/E
<b>6.03 Lead A/E</b>	<b>Water and Sanitary Sewer Systems – Water and Sanitary Sewage Treatment Plants</b>	<b>20.00%</b>	
<b>14.00 Lead A/E</b>	<b>Architecture</b>	<b>20.00%</b>	
9.01 Other	Soils, Foundations and Materials Testing – Drilling, Subsurface Investigations and Seismographic Services	0.30%	
9.02 Other	Soils, Foundations and Materials Testing – Geotechnical and Materials Engineering Services	0.20%	
9.03 Other	Soils, Foundations and Materials Testing – Concrete and Asphalt Testing Services	0.30%	
9.04 Other	Soils, Foundations and Materials Testing – Non-Destructive Testing and Inspections	0.20%	
10.02 Other	Environmental Engineering – Environmental Geology Services	0.20%	
10.05 Other	Environmental Engineering – Contamination Assessment and Monitoring	0.20%	
10.06 Other	Environmental Engineering – Remedial Action Plan Design	0.20%	
10.07 Other	Environmental Engineering – Remedial Action Plan Implementation/Operation/Maintenance	0.20%	
11.00 Other	General Structural Engineering	20.00%	4.00%
12.00 Other	General Mechanical Engineering	11.00%	2.20%
13.00 Other	General Electrical Engineering	10.00%	2.20%
15.01 Other	Surveying and Mapping – Land Surveying	1.00%	1.00%
15.03 Other	Surveying and Mapping – Underground Utility Location	1.00%	1.00%

16.00 Other	General Civil Engineering	6.00%	
17.00 Other	Engineering Construction Management	5.50%	3.38%
18.00 Other	Architectural Construction Management	1.00%	
19.09 Other	Value Analysis and Life-Cycle Costing – Soils, Foundations and Materials Testing	1.50%	
20.00 Other	Landscape Architecture	0.60%	0.60%
22.00 Other	ADA Title II Consultant	0.60%	0.60%
	TOTAL	100.00%	14.98%

WASD is recommending a 14.98% SBE A/E, 15.02% SBE-Construction and 2.58% SBE (G/S) participation goal. Attached are WASD's Departmental Input Worksheets and the Minimum Experience and Qualifications requirements for your review and approval.

If you have any questions, please contact Patty Palomo, Chief, Intergovernmental Affairs Section at [Patty.Palomo@miamidade.gov](mailto:Patty.Palomo@miamidade.gov) or 786-552-8040.

**DEPARTMENTAL INPUT**  
**CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION**

**Contract/Project Title:** Design-Build Services for the Construction of a New Drinking Water Laboratory Building at the Alexander Orr, Jr. Water Treatment Plant

**Contract/Project No.** DB16-WASD-02

**Description:** Design-Build Services for the Construction of a New Drinking Water Laboratory Building at the Alexander Orr, Jr. Water Treatment Plant

**Department:** Miami-Dade Water and Sewer Department

**Contact:** Patty Palomo

**Phone:** (786) 552-8040

**Estimated Cost:** \$7,192,306      **Funding Source:** Future WASD Revenue Bonds, WASD Revenue Bonds Sold, Water Renewal and Replacement Fund

**ANALYSIS**

Commodity/Service No. \_\_\_\_\_ SIC: \_\_\_\_\_

Trade/Commodity/Service Opportunities

Contract/Project History of Previous Purchases for Previous Three (3) Years  
 Check Here      if this is a New Contract/Purchase with no Previous History

	<u>Existing</u>	<u>2<sup>nd</sup> Year</u>	<u>1<sup>st</sup> Year</u>
Contractor	_____	_____	_____
Ethnicity/Race	_____	_____	_____
Gender	_____	_____	_____
Contract Value	_____	_____	_____

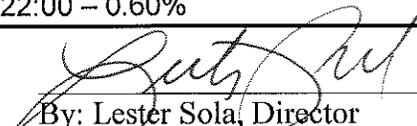
COMMENTS: \_\_\_\_\_

<u>SBE GOAL</u>	<u>BID PREFERENCE</u>	<u>NO MEASURE</u>
<u>14.98</u> % A/E	_____	_____
<u>2.58</u> % G/S	_____	_____

Analysis for Goal Recommendation

<u>Sub-Trade</u>	<u>Est. Cost</u>	<u>% of Item to Base Bid</u>	<u>Availability</u>
_____	\$ _____	_____	_____
_____	\$ _____	_____	_____
_____	\$ _____	_____	_____
Total:	\$ _____	_____	_____

**Basis for Recommendation:** WASD proposes that the goal can be achieved with SBE firms assisting with 11.00 – 4%; 12:00 – 2.20%; 13:00 – 2.20%; 15.01 – 1.00%; 15.03 – 1.00%; 17.00 – 3.38% 20.00 – 0.60%; and 22:00 – 0.60%

  
 By: Lester Sola, Director      Date: 5/12/16  
 Water and Sewer Department

Internal Services Department      Date

**DEPARTMENTAL INPUT  
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION**

DATE: May 12, 2016

TO: Gary Hartfield, Division Director  
Internal Services Department,  
Division of Small Business Development

FROM: Lester Sola, Director  
Water and Sewer Department



CONTRACT TITLE: Design-Build Services for the Construction of a New Drinking Water Laboratory Building at the Alexander Orr, Jr. Water Treatment Plant  
Project No. DB16-WASD-02

Construction Cost	\$ 5,088,669
Construction Contingency 5%	\$ 254,433
Dedicated Allowance	\$ 639,018
Art in Public Places	\$ 76,330
Permitting Fees 3%	\$ 152,660
<b>TOTAL:</b>	<b>\$ 6,211,111</b>

ITEM	DESIGN-BUILD SUB-TRADE	ESTIMATED CONSTRUCTION COST	PERCENT (%) OF CONSTRUCTION COST	SBE % OF CONSTRUCTION COST
1	Water-Testing Laboratory	\$ 540,750	10.63%	
2	Geotechnical, Geology, Environmental	\$ 152,660	3.00%	
3	Structural Construction	\$ 1,540,451	30.27%	3.56%
4	Mechanical and Lift Station Construction	\$ 1,044,550	20.53%	3.39%
5	Electrical Construction	\$ 894,298	17.57%	3.00%
6	Survey & Utility Location Construction	\$ 25,443	.50%	
7	Civil Construction	\$ 568,834	11.18%	3.20%
8	Coating & Finishes	\$ 67,250	1.32%	1.87%
9	Design-Build Construction Management	\$ 254,433	5.00%	
	Total Construction Cost	\$ 5,088,669	100%	15.02%
	Contingency Allowance 5%	\$ 254,434		
<b>Dedicated Allowances</b>				
	Art In Public Places	\$ 76,330		
	Mark-Ups, Administration	\$ 639,018		
	Permitting 3%	\$ 152,660		
	Total Estimated Construction Cost including Dedicated Allowance, Contingency and Permitting Fees	\$ 6,211,111		

**Design-Build Services for the Construction of a New Drinking Water  
Laboratory Building at the Alexander Orr, Jr. Water Treatment Plant  
Project No. DB16-WASD-02**

**MINIMUM EXPERIENCE AND QUALIFICATIONS**

**A. Lead Constructors:**

1. The Lead Constructor or its firm members performing the construction of the laboratory must have a minimum of two (2) years total building construction industry experience and preferably have constructed at least one (1) laboratory facility consisting of a minimum of 5,000 total square feet.
2. It is preferred that the Lead Constructor or its firm members performing the construction for the laboratory has experience in the construction of a laboratory within a university, hospital, school, utility or for another similar organization.

**B. Lead Designers:**

1. The Lead Designer or its firm members performing the design of the laboratory must have Architecture & Engineering industry experience and it is preferred that the Lead Designer or its firm members would have designed at least one (1) laboratory facility.
2. It is preferred if the Lead Designer or its firm members performing the design for the laboratory has designed a laboratory within a university, hospital, school, utility or for another similar organization.
3. It is preferred that the Lead Designer or its firm members has experience with requirements from the National Environmental Laboratory Accreditation Conference.
4. It is preferred that the Lead Designer or its firm members has a Lead Designer that is a documented Leadership in Energy and Environmental Design (LEED) Green Associate and has LEED AP BD+C certification.

**C. Subconsultants:**

1. Subconsultants to the Design-Builder or Lead Designer providing services must demonstrate to have designed at least one (1) project(s) that involved the main project element for which the Subconsultant is being proposed.

**D. Design-Build Team Key Personnel Experience and Qualifications:**

1. Preferred ten (10) years total industry experience of which five (5) years are in a similar responsible position for each of the following Key Personnel:
  - Design-Build Project Manager
  - Lead Designer-Design Manager
  - Lead Constructor-Construction Manager
  - Lead Architect
  - Lead Civil Engineer
  - Lead Mechanical Engineer
  - Lead Electrical Engineer
  - Superintendent
  - Permitting/Compliance Manager
  - Design-Builder Quality Assurance/Quality Control Manager
  - Design-Builder Safety Manager
  - LEED Green Associate/Construction Manager

2. Key Personnel must demonstrate experience with the type of work to be performed.
3. Proposers shall identify in their Statement of Qualifications those State of Florida registered Architects and Professional Engineers who will sign and seal construction plans and specifications.
4. Key Personnel resumes shall indicate the individual's current firm association, their professional qualifications, a client reference with contact information, and their role and duration on each project for which they are being credited the related experience.

E. Additional Preferred Experience and Past Performance:

1. Experience in a significant role on a Design-Build project, especially in a similar role as proposed for this Project.
2. Superior references with regard to meeting cost, schedule and quality objectives on previous projects and maintaining a positive client relationship.

F. Design-Builder Safety Record-Past Performance:

Past performance as reflected by a three (3) year average for the last three (3) previous full years of the Experience Modification Rate (EMR) for the Design-Builder shall not exceed 1.10 for each firm.

Design-Builders shall provide EMR data for the previous three (3) full calendar years (2013, 2014 and 2015) on a firm-wide basis documented by a signed letter with contact information from the firm's insurance carrier or the insurance carrier's agency representative. Higher qualification scores shall be provided by the Competitive Selection Committee (CSC) for a Design-Builder demonstrating an average EMR lower than other competing Design-Builder firms. The Design-Builder shall also provide their Occupational Safety and Health Administration (OSHA) forms 300 and 300A for the last three (3) full calendar years (2013, 2014 and 2015) indicating OSHA submitted accident data for evaluation by the CSC as to their frequency and severity.