

# Memorandum

MIAMI-DADE  
COUNTY

Date: November 20, 2013

To: Lester Sola, Director  
Internal Services Department

From: John W. Renfrow, P.E., Director  
Miami-Dade Water and Sewer Department

Subject: Review Item: Design-Build Services for Replacement of Water Mains and Service  
Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

*(Design)*

It is recommended that the Small Business Development division of the Internal Services Department review the attached request for Community Business Enterprise (CBE) and Community Small Business Enterprise (CSBE) measures for the above mentioned project, in order to proceed with the advertisement and subsequent consultant selection for this project.

The duration of the proposed design-build contract is 910 calendar days. The total maximum compensation for the Design-Build contract is \$11,135,274.46 which includes the following:

- \$8,342,750.00 estimated construction cost;
- \$1,180,417.74 estimated engineering cost;
- \$ 417,137.48 contingency fees for construction (5%);
- \$ 118,041.77 contingency fees for engineering (10%);
- \$ 826,644.98 dedicated allowance;
- \$ 250,282.49 permitting fees.

The scope of services shall include, but is not be limited to, surveying, geotechnical investigations, engineering, design, technical specifications, permitting, construction, testing and commissioning services, customer contact, negotiation and agreement execution for the implementation of new 8-inch water mains. The project consists of the replacement of the existing undersized and deteriorated water mains in order to improve system pressure and provide fire flow protection, and for water service conversions (transfer of services from the rear to the front of properties) in the Shenandoah Area (Phase A) of the City of Miami. The Project includes the following main elements:

1. Approximately 38,900 linear feet of 8-inch and 1,100 linear feet of 6-inch ductile iron water main pipe and fittings to include, but not be limited to the following: all required resilient seated gate valves; all required fire hydrant assemblies with guard posts; approximately 1,160 water services; 761 water service conversions from rear of property to front of property to include all required piping, fittings and accessories, testing and restoration within private property including providing safety and protection of homeowner's property; tapping connections of various sizes to existing mains including tapping sleeves and valves; in-line water main connections to existing mains of various sizes; air release valve and flushing valve outlet assemblies; polyethylene encasement for ductile iron pipe and fittings, if ordered by the engineer; sheeting and shoring ordered left in place by the engineer; additional suitable backfill, if needed; furnish all materials, equipment and supplies necessary for cleaning, testing and disinfecting the mains; removal of existing asphalt pavement and sod; milling and resurfacing of existing asphalt

pavement; removal, transport, salvage and legal disposal of demolition material; placing existing water mains out of service upon completion of work; traffic control; installation and restoration of pedestrian curb ramps and installation of detectable warning surfaces, temporary and permanent replacement of any utilities, pavement, sidewalk, curb & gutter, valley gutter, traffic circle roundabout, tree, landscaping, sod, pavement markings, and/or driveway damaged by construction and all other appurtenant and miscellaneous items and work for a complete and fully functional installation.

The Design-Builder shall design and construct all ancillary piping, tapping, temporary bypass, and tie-in connections to facilitate successful construction and commissioning the new 8-inch water mains without any interruption of service to the existing Miami-Dade Water and Sewer (WASD) customers. The design and construction services rendered by the Design-Builder shall result in a complete, functional, and operable piping project with a minimum 80 year design life.

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

<b>Technical Category No.</b>	<b>Description</b>	<b>Total Percentage</b>	<b>CBE Percentage</b>
<b>6.01 Prime</b>	<b>Water Distribution and Transmission</b>	<b>20</b>	<b>0</b>
<b>16.00 Prime</b>	<b>Civil Engineering</b>	<b>25</b>	<b>0</b>
15.01	Topographical Surveying and Mapping – Land Surveying (Public Right-of-Way)	16	16
15.03	Utility Underground Location	5	0
3.04	Traffic Engineering Studies	1	1
9.02	Soils, Foundations and Geotechnical Materials Engineering Testing	2	2
10.05	Contamination Assessment and Monitoring	1	1
12.00	General Mechanical Engineering	15	0
17.00	Engineering Construction Management	15	0
	<b>TOTAL</b>	<b>100%</b>	<b>20%</b>

WASD is recommending a 20% CBE and 16% CSBE participation goal. Attached are WASD's Departmental Input Worksheets and CBE and CSBE minimum requirements for your review and approval.

If you have any questions, please contact Patty David, Acting Chief, Intergovernmental Affairs Section at [pattyd@miamidadegov](mailto:pattyd@miamidadegov) or (786) 552-8040.

Attachments

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

**Contract/Project Title:** Design-Build Services for Replacement of Water Mains and Service Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

**Contract/Project No.** DB13-WASD-03

**Description:** Design-Build Services for Replacement of Water Mains and Service Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

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

**Contact:** Patty David

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

**Estimated Cost:** \$11,135,274.46

**Funding Source:** Water Renewal and Replacement Fund, Future WASD Revenue Bonds, WASD 2013 Revenue Bonds and WASD Revenue Bonds Sold

**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

Existing

2<sup>nd</sup> Year

1<sup>st</sup> Year

Contractor	_____	_____	_____
Ethnicity/Race	_____	_____	_____
Gender	_____	_____	_____
Contract Value	_____	_____	_____

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

CBE GOAL  
20 %

BID PREFERENCE

NO MEASURE

Analysis for Goal Recommendation

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

**Basis for Recommendation:** WASD proposes that the goal can be achieved with CBE firms assisting with 3.04 – 1%; 9.02 – 2%; 10.05 – 1%; and 15.01 – 16%

By:  \_\_\_\_\_  
By: John W. Renfrow, P.E., Director Date:

\_\_\_\_\_ Date: Internal Services Department

**Minimum Qualifications and Experience  
For Lead Constructors and Lead Designers  
Projects DB13-WASD-03 and DB13-WASD-04**

Proposed Design-Builder shall demonstrate its project team experience by presenting the qualifications and capabilities of each Design-Build Team member firm, for projects completed within the last five (5) years, including projects that may be at least fifty percent (50%) complete prior to the required submittal date of this Request Design-Build Services (RDBS) Step 1 solicitation, that demonstrate related minimum project experience as indicated below:

**Lead Constructors:**

The construction firm performing the water main installation work must have minimum five (5) years total industry experience from the date of this solicitation. It also must have constructed at least five (5) water main projects of similar size and complexity in an urban environment consisting of a minimum of 50,000 total linear feet of installation and minimum 8-inch nominal diameter of such water main installation is required.

Experience of Lead Constructors and Pipe Installation Crews must submit history of past performance completing projects on schedule and to the satisfaction of the facility owner.

**Lead Designers:**

- a. The Lead Designer firm performing the design of the water main installation must have minimum five (5) years total industry experience from the date of this solicitation. It also must have designed at least five (5) water main installation projects in an urban environment consisting of a minimum of 10,000 total linear feet of minimum 8-inch nominal diameter.
- b. Lead Designer providing services under A/E technical certification categories 6.01, and 16.00 must demonstrate to have designed at least five (5) projects that were completed within the last ten (10) years from the date of this solicitation that involved water and sewer main installation.

Subconsultants to the Design-Builder or Lead Designer must demonstrate to have designed at least three (3) projects that were completed within the last ten (10) years from the date of the solicitation that involved the main project element for which the Subconsultant is being proposed.

Additional Preferred Project Experience and Past Performance: The Design-Builder teams may receive higher qualifications scores from the Competitive Selection Committee (CSC) if their submitted project experience and past performance can demonstrate any of the following listed below:

- a. Listed projects are of a similar or greater size and level of complexity.
- b. Any listed projects of the proposed Design-Builder entity were designed and constructed through Design-Build project delivery.
- c. The Lead Constructor and Lead Designer have worked together on previous projects, especially on Design-Build projects.
- d. Key personnel, most significantly the proposed Project Manager, Design Manager and Construction Manager, that have served on the Projects listed and their client reference can validate that performance.

## **Design-Build Team Key Personnel Experience and Qualifications**

- A) Minimum industry and position experience of Design-Build team Key Personnel are as follows:
- 1) Minimum ten (10) years total industry experience of which five (5) years in a similarly responsible position for each of the following Key Personnel:
    - a) Design-Build Project Manager
    - b) Lead Designer- Design Manager
    - c) Lead Constructor - Construction Manager
    - d) Lead Civil Engineer
    - e) Pipe Installation Superintendent
  - 2) Key Personnel must demonstrate experience with the type work to be performed.
    - a) Proposers shall identify, in their Statement of Qualifications, those State of Florida registered Professional Engineers who will sign and seal construction plans and specifications.
    - b) 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.
- B) Additional Preferred Experience and Past Performance:
- a) Experience in significant role on a Design-Build project, especially in a similar role as proposed for this Project.
  - b) Superior references with regard to meeting cost, schedule, and quality objectives on previous projects, and maintaining a positive client relationship.

### **Design-Builder Safety Record - Past Performance**

- a) Minimum past performance as reflected by a three (3) year average for the last three (3) previous full years (from the date of the solicitation) of the Experience Modification Rate (EMR) for the Design-Builder shall not exceed 1.10 for each firm.
- b) Design-Builders shall provide EMR data for the previous three (3) full calendar years (2010, 2011, and 2012) on a firm-wide basis shall be documented by a signed letter with contact information from the firm's insurance carrier, or the insurance carrier's agency representative. Higher qualifications score shall be provided by the CSC for a Design-Builder demonstrating an average EMR lower than other competing Design-Builder firms. Design-Builder shall also provide their OSHA forms 300 and 300A for the last three (3) full calendar years indicating OSHA submitted accident data for evaluation by the CSC as to their frequency and severity.

### **Ability of Design-Builder and Team to interface with the County**

Design-Builder Proposer will provide a narrative of not more than three (3) single side 8.5 x 11-inch pages, in not less than Arial 11 point font and 3/4-inch margins, that explains how the Design-Builder and team members can efficiently interface with the County and WASD in a timely and effective manner with respect to items such as regular and emergency communications, submittals, meeting attendance, commercial issues and other project related activities.



# Memorandum



Date: November 20, 2013

To: Lester Sola, Director  
Internal Services Department

From: John W. Renfrow, P.E., Director  
Miami-Dade Water and Sewer Department

Subject: Review Item: Design-Build Services for Replacement of Water Mains and Service  
Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

A handwritten signature in black ink, appearing to read "John W. Renfrow". The signature is written in a cursive, flowing style and is positioned over the "From:" field of the memorandum.

Handwritten initials "JWR" in black ink, located at the end of the subject line.

It is recommended that the Small Business Development division of the Internal Services Department review the attached request for Community Business Enterprise (CBE) and Community Small Business Enterprise (CSBE) measures for the above mentioned project, in order to proceed with the advertisement and subsequent consultant selection for this project.

The duration of the proposed design-build contract is 910 calendar days. The total maximum compensation for the Design-Build contract is \$11,135,274.46 which includes the following:

- \$8,342,750.00 estimated construction cost;
- \$1,180,417.74 estimated engineering cost;
- \$ 417,137.48 contingency fees for construction (5%);
- \$ 118,041.77 contingency fees for engineering (10%);
- \$ 826,644.98 dedicated allowance;
- \$ 250,282.49 permitting fees.

The scope of services shall include, but is not be limited to, surveying, geotechnical investigations, engineering, design, technical specifications, permitting, construction, testing and commissioning services, customer contact, negotiation and agreement execution for the implementation of new 8-inch water mains. The project consists of the replacement of the existing undersized and deteriorated water mains in order to improve system pressure and provide fire flow protection, and for water service conversions (transfer of services from the rear to the front of properties) in the Shenandoah Area (Phase A) of the City of Miami. The Project includes the following main elements:

1. Approximately 38,900 linear feet of 8-inch and 1,100 linear feet of 6-inch ductile iron water main pipe and fittings to include, but not be limited to the following: all required resilient seated gate valves; all required fire hydrant assemblies with guard posts; approximately 1,160 water services; 761 water service conversions from rear of property to front of property to include all required piping, fittings and accessories, testing and restoration within private property including providing safety and protection of homeowner's property; tapping connections of various sizes to existing mains including tapping sleeves and valves; in-line water main connections to existing mains of various sizes; air release valve and flushing valve outlet assemblies; polyethylene encasement for ductile iron pipe and fittings, if ordered by the engineer; sheeting and shoring ordered left in place by the engineer; additional suitable backfill, if needed; furnish all materials, equipment and supplies necessary for cleaning, testing and disinfecting the mains; removal of existing asphalt pavement and sod; milling and resurfacing of existing asphalt

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

**Contract/Project Title:** Design-Build Services for Replacement of Water Mains and Service Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

**Contract/Project No.** DB13-WASD-03

**Description:** Design-Build Services for Replacement of Water Mains and Service Conversions in the Shenandoah Area (Phase A) - Project No. DB13-WASD-03

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

**Contact:** Patty David

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

**Estimated Cost:** \$11,135,274.46

**Funding Source:** Water Renewal and Replacement Fund, Future WASD Revenue Bonds, WASD 2013 Revenue Bonds and WASD Revenue Bonds Sold

**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

Existing

2<sup>nd</sup> Year

1<sup>st</sup> Year

Contractor	_____	_____	_____
Ethnicity/Race	_____	_____	_____
Gender	_____	_____	_____
Contract Value	_____	_____	_____

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

**CBE GOAL**  
20 %

**BID PREFERENCE**

**NO MEASURE**

**Analysis for Goal Recommendation**

<u>Sub-Trade</u>	<u>Est. Cost</u>	<u>% of Item to Base Bid</u>	<u>Availability</u>
_____	\$ _____	_____	_____
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**Basis for Recommendation:** WASD proposes that the goal can be achieved with CBE firms assisting with 3.04 – 1%; 9.02 – 2%; 10.05 – 1%; and 15.01 – 16%

By:  \_\_\_\_\_  
 By: John W. Renfrow, P.E., Director Date: \_\_\_\_\_

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**DEPARTMENTAL INPUT  
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DATE: November 20, 2013

TO: Lester Sola, Director  
Internal Services Department

FROM: John W. Renfrow, P.E., Director  
Water and Sewer Department



CONTRACT TITLE: Design-Build Services for Replacement of Water Mains and Service Conversions in the Shenandoah Area (Phase A)  
Project No. DB13-WASD-03

CONTRACT	\$8,342,750.00	Construction cost
ESTIMATE:	\$ 417,137.48	Contingency Allowance 5%
	\$ 826,644.98	Dedicated Allowance
	\$ 250,282.49	Permitting Fees 3%
<b>TOTAL:</b>	<b>\$9,836,814.95</b>	

FUNDING: Water Renewal and Replacement Fund, Future WASD Revenue Bonds, WASD 2013 Revenue Bonds and WASD Revenue Bonds Sold

ITEM	SUBTRADE	ESTIMATED COST	% OF ITEM OF BASE BID	CSBE AVAILABILITY
1	Water main construction (includes mobilization, furnish and installation, primary connections, temporary connections, cutting and plugging exist, alley mains, and water main services in the main street areas)	\$3,298,542.00	39.54%	
2	Water service conversion from rear water service to front water service	\$3,044,000.00	36.49%	8.00%
3	Pavement restoration	\$1,750,293.00	20.98%	8.00%
4	Miscellaneous restorations (sidewalks, curb and gutter restoration)	\$ 88,292.00	1.05%	
5	Maintenance of Traffic	\$ 161,623.00	1.94%	
	<b>Total Construction Cost</b>	<b>\$8,342,750.00</b>	<b>100%</b>	<b>16.00%</b>
	Contingency Allowance 5%	\$ 417,137.48		
	Dedicated Allowance:	\$ 826,644.98		
	Permitting	\$ 250,282.49		
	<b>Total Estimated Construction Cost including Dedicated Allowance, Contingency and Permitting Fees</b>	<b>\$9,836,814.95</b>		

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For Lead Constructors and Lead Designers  
Projects DB13-WASD-03 and DB13-WASD-04**

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