

DEPARTMENT INPUT
CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

Check applicable Ordinance(s): ☒ 90-143 Responsible Wage and Benefits ☐ 03-237 (formerly 03-1) Community Workforce Program

PROJECT INFORMATION See attachment ☒

Contract/Project/*Work Order No.: S-909

*Reference corresponding project number when submitting a work order

Contract/Project Title: CD 2.15(2) CDWWTP PLANT 2 CLUSTER 2 DIGESTER UPGRADES

Description/Scope of Work: See Attached

Estimated Cost: 29258330 Funding Source: Other (specify)

Location of Project (street address or beginning and ending points) i.e. 12345 NE 23rd Ct or Starts at 135 St. ends at 145 St.

Central District Waste Water Treatment Plant (CDWWTP) is located in the City of Miami at 3989 Rickenbacker Causeway on Virginia Key.

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CWP) See attachment ☐

Engineer/Department or Agency's estimated required workforce for Project ☐ Work Order ☐:

Trade/Skills Required	Est. # of workforce required per trade	Est. # of total days to complete job
N/A		
N/A		
N/A		

Comments:Not Applicable, Project is not in a DTA

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CSBE) See attachment ☒

Sub-Trade	Est. Cost	% of Item to Base Bid	Availability
Construction	\$2,742,196.00	8.52%	
G & S	\$952,999.25	2.96%	
	\$	0%	

RECOMMENDATION

Set-Aside: Level 1 ☐ Level 2 ☐ Level 3 ☐ Trade Set-Aside ☐ Sub-Contractor Goal ☒ Workforce Goal ☐ No Measure ☐

Basis for Recommendation: Availability among SBE subcontractors. Also, this is highly specialize heavy industrial work required for the replacement of all existing equipment, valves, piping; and appurtenances; electrical panels, conduits, cables, and lighting; instrumentation and controls; building mechanical; and architectural doors, windows, and louvers within the Digester Cluster Control Building No. 2 and inside Digester Tank Nos. 5, 6, 7, and 8. The project is required under the USEPA Consent Decree and must be in service by May 8, 2018..

Date submitted to DBD: 08/17/17

Contact Person: Isaac Smith

Telephone No.: 786-552-8989

DEPARTMENTAL INPUT
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION

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

From: Isaac Smith, Sr. Program Manager
Construction Contracts Section

Department: Miami-Dade Water and Sewer Department

Contract Title: CD 2.15(2) CDWWTP PLANT 2 CLUSTER 2 DIGESTER UPGRADES

Contract No.: S-909

Estimate Amount: \$32,184,163 [\$29,258,330 Construction + \$2,925,833 Contingency]

Funding Source: EW 660, Revenue Bonds Sold

Small Business Enterprise – Construction – 8.52% Analysis for Recommendation (Attached)
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Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

This project is one in a series of projects that are being processed under Section 2-8.2.12 of the Code, entitled Miami-Dade Water and Sewer Department Consent Decree and Capital Improvement Programs Accelerate Ordinance.

In general, the project consists of furnishing all materials, labor, and equipment necessary for upgrades to the existing Plant 2 Digester Cluster 2 facility at the Central District Wastewater Treatment Plant (CDWWTP), located in Virginia Key, 3989 Rickenbacker Causeway, Section 16, Township 54, Range 42, Miami-Dade County, Florida 33149.

The scope of work includes, but is not limited to, furnishing all materials, labor, and equipment necessary for upgrades to the existing CDWWTP Plant 2 Digester Cluster 2 facility. The work includes demolition and replacement of all existing equipment, valves, piping; and appurtenances; electrical panels, conduits, cables, and lighting; instrumentation and controls; building mechanical; demolition of existing architectural doors, windows, and louvers within the digester Control Building and inside Digester Tank Nos. 5, 6, 7 and 8; demolition, removal and replacement of new digester covers for Digester Tank Nos. 5, 6, 7, and 8; new valve vault for Digester Cluster 2, replacement of all digester header yard piping beyond the valve vault which connects the Plant 2 Digester Clusters (including sanitary, hot water supply, hot water return, thickened sludge, and digester gas yard piping beyond valve vault); extension of the existing Electrical Room at the Control Building; structural repairs to and recoating of Control Building and Digester Tank Nos. 5, 6, 7, and 8; Dewatering and disposal of sludge within each digester tank in Cluster 2; installation of process mechanical equipment including linear motion mixers and heat exchangers; and installation of new air conditioning, ventilation supply, exhaust fans and associated ductwork.

QUALIFICATIONS OF BIDDERS:

Bidders shall submit proof that his/her firm has at least the minimum successful contract experience as requested below:

- a. The Contractor shall be experienced in the construction of new or rehabilitation of existing wastewater treatment plant biosolids systems, which include return/waste activated sludge pump stations, sludge thickening, digester, and dewatering systems.
- b. The Contractor must have successfully completed the construction of three (3) projects which included new wastewater digester tanks or rehabilitation of existing wastewater digester tanks. A minimum of one of project shall include the installation of new digester tank floating covers.
- c. The Contractor or Contractor's Electrical Subcontractor shall have successfully completed a minimum of three (3) projects demonstrating experience with medium or high voltage power supply systems, including transformers and switchgear.

LICENSES: The types of licenses required are: General Engineering, General Building Contractor and/or other categories as applicable by Chapter 489 of the Florida Statutes or Chapter 10 of Miami-Dade County Code.

COMMUNITY WORKFORCE PROGRAM

CWP PARTICIPATION: Not Applicable, project is not located in a DTA.

Analysis for SBE Recommendation					
Recommendation - 8.52%					
Item No.	Description	Cost	Item %	SBE Amt.	SBE %
1	Site Mobilization & Demobilization	\$ 2,058,071	7.03%		
17	Installation of miscellaneous items	\$ 9,279	0.03%	464.00	0.001%
2	Demolition & Disposal of Yard Piping	\$ 55,641	0.19%	41,731.00	0.130%
3	Demolition & Disposal of Digester Covers	\$ 583,091	1.99%	174,927.00	0.544%
4	Demolition of Process Mechanical in Control Bldg. & Digester Tanks 5, 6, 7 & 8	\$ 333,358	1.14%	100,007.00	0.311%
5	Salvaging and delivery of sludge transfer pumps, gas boosters and appurtenances	\$ 14,920	0.05%		
17	Removal and disposal of process mechanical equipment	\$ 37,064	0.13%		
17	Salvaging and delivery of RTUs, auxiliary cabinets in Control Bldg	\$ 39,662	0.14%		
6	Demolition & Disposal of electrical panels, conduit, cables and other electrical items	\$ 13,562	0.05%	10,172.00	0.032%
17	Removal and disposal of waste gas flares, piping, controls and appurtenances	\$ 43,759	0.15%	13,128.00	0.041%
7	Cluster 2 valve vault, grating, supports and appurtenances	\$ 187,233	0.90%		
8	Site Civil Work: clearing and grubbing, dewatering, erosion control, compaction, fencing, grading, restoration of roadways, sidewalks, and sodding	\$ 264,476	0.64%	198,357.00	0.616%
9	Structural/architectural work: roofing, windows, doors; metal stairs; louvers; and all other necessary structural components	\$ 1,097,706	3.75%	439,082.00	1.364%
10	Process Mechanical in Digester Cluster 2 Control Building	\$ 2,111,912	7.22%		
11	Tube-in-Tube type Heat Exchangers	\$ 691,960	2.37%		
12	Sludge recirculation chopper pump and motors assemblies	\$ 260,204	0.89%		
13	Radial beam type floating digester covers (Carbon Steel) and appurtenances	\$ 2,848,242	9.73%		
14	Linear motion mixer systems and appurtenances	\$ 1,583,694	5.41%		
15	Sludge transfer pumps & motors	\$ 178,750	0.61%		
16	Gas boosters blowers	\$ 100,551	0.34%		
17	Waste gas burner system, complete with gas burner and combustion stack	\$ 696,031	2.38%		

18	Installation of floating digester covers and accessories	\$ 2,049,943	7.01%		
17	Installation of Linear motion mixers	\$ 102,493	0.35%		
17	Installation of heat exchangers, sludge transfer pumps and gas booster blowers	\$ 49,757	0.17%		
19	HVAC, filter system, supply & exhaust fans, ductwork, diffusers, balancing & testing	\$ 320,145	1.09%	256,115.00	0.796%
20	Electrical: MCCs, VFDs, enclosures, lightning protection, etc.	\$ 1,736,420	5.93%	694,568.00	2.158%
21	Systems Integration; programming & SCADA for Digester Cluster 2	\$ 1,199,352	4.10%		
23	Startup and commissioning services	\$ 86,351	0.30%		
24	For all painting, coating and finishing	\$ 2,985,540	10.20%	746,385.00	2.319%
25	Final cleanup	\$ 28,473	0.10%	17,084.00	0.053%
26	Miscellaneous cost to complete project	\$ 30,053	0.10%		
27	Concrete restoration	\$ 125,441	0.43%	50,176.00	0.156%
28	Stainless steel radial beam type floating digester covers	\$ 7,335,200	25.07%		
	Subtotal	\$ 29,258,330			
	Contingency Allowance	\$ 2,925,833	9.09%		
	SBE TOTAL	\$ 32,184,163	100.00%	2,742,196.00	8.52%

**DEPARTMENTAL INPUT
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION**

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

From: Isaac Smith, Manager
Construction Contracts Section

Department: Miami-Dade Water and Sewer Department

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Estimate Amount: \$32,184,163 [\$29,258,330 Construction + \$2,925,833 Contingency]

Funding Source: EW 660, Revenue Bonds Sold

Small Business Enterprise – Goods & Services – 2.96%

Analysis for Recommendation (Attached)



Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

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CONSIDERATIONS FOR ANALYSIS:

1. The project involves the construction of a new and rehabilitation of a wastewater treatment plant biosolids system. This sub-system of the plant includes very large, expensive and specialized equipment. During normal operations the metal digester covers float above the structure.
2. The major portions of the work involves the replacement of new equipment (linear motion mixers, heat exchangers, recirculation pumps, transfer pumps and gas booster pumps), piping, valves, and appurtenances within the central Control Building and inside Digester Tanks No. 5, 6, 7, and 8. Each of the digester tanks will be equipped as primary digestion tanks with the installation of new equipment, valves, and piping inside the Control Building.
3. The Department has evaluated the project for possible opportunities for participation in the area of SBE – Goods and Services. Based on the scope and nature of the work, we have concluded that there are a wide range of opportunities for participation on this project. The recommended areas of participation for SBE Goods & Services providers includes the possible areas:

Analysis for Small Business Enterprise – Goods and Services Recommendation				
Item	Goods & Services	Prime Contractor	Sub-Contractor	SBE Availability
1.	GOODS: Mechanical Process Equipment Biosolids Systems Electrical Switchgear Instrumentation & Controls Piping, Valves & Fittings Backfill & Bedding Doors, windows, etc	X X X X X	X X X	X X X
2.	SERVICES Structural Electrical Instrumentation Testing & Compaction Paving Civil Site work Systems Integration Hauling Utility Piping Finishing Painting Plumbing	X X	X X X X X X X X X X X	X X X X X X X X X X X