

SBD CM REVIEW FORM

To: Business Opportunity Support Services
From: SBD CM - Ileana Quintana
Department: Water & Sewer Department **Contact:** Patty David
Date: 01 / 02 / 2013

PROJECT NUMBER: DB12-WASD-01

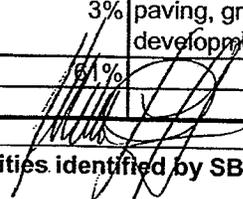
PROJECT TITLE: Design Build services for the replacement of the existing 54 inch sanitary sewage force main pipeline from Central District Wastewater Treatment Plant to Fisher Island under Norris Cut Channel

SCOPE OF WORK/DESCRIPTION: Will include engineering, design, permitting and inspection to support the construction, installation, testing and commissioning activities associated with replacing the existing damaged 54 in sanitary sewer force main pipe with a 60 in inside diameter pipeline; engineering and design services will be required to address the following project elements: approx 5,200 lf of tunnel boring with precast segmental liners capable of accommodating a 60 in internal diameter carrier pipeline to be constructed with inert/non corrosive material and encased in grout to achieve a min service life of 100 years; approx 2,100 lf of open cut construction to install a 60 in internal diameter pipeline within the Central District WWTP compound connecting to the Central District WWTP grit chamber facility; approx 1,000 lf of horizontal directional drilling to install an 8 in non rigid pipeline under the golf course that will relay the sewage flow from the Fisher Island Pump Station (PS 170) to the Fisher Island retrieval shaft facilitating a connection to the 60 in replacement force main; approx 400 lf of open cut construction to install an 8 in pipe from the existing Fisher Island Pump Station (PS 170) and interconnecting to 8 in horizontal directional drilling installation.

SPECIAL REQUIREMENTS: **Lead Consultant** must hold T.C. 3.02A, 6.01, 12.00 and 16.00; the lead designer who will design the tunnel must have designed at least 2 tunneling projects consisting of concrete segmental liners of a min of 2500 ft length and 8 ft inside diameter; the lead designer performing the design of the carrier pipe within the tunnel shall have designed 1 project with a carrier/product pipe of 36 in min inside diameter and for a distance of 100 ft or more; the lead designer performing design for the deep shaft shall have designed a deep shaft project to support a tunnel boring operation (the shaft shall at least be 40 ft deep below grade); the lead designer performing the installation of horizontal direction drill HDD shall demonstrate having designed 1 project utilizing HDD with non rigid pipe of min 6 in diameter for a distance of 1000 ft or more.

SUBCONSULTANTS providing services must demonstrate to have designed at least 1 project within the last 10 years that involve the T.C. of work for which they are requesting to provide their services

CATEGORIES	%	COMMENTS
		Lead Consultant
3.02A Highway Systems - Tunnel Design	34%	Specialty experience in the design of min 8 ft inside diameter tunnel with pre-cast concrete segmental liners in geologies with limestone formation and high water table an the procurement of TBM
6.01 Water Distribution and Sanitary Sewage Collection and Transmission Systems	20%	Specialty knowledge in design, construction and testing of large diameter pressurized mains (54 in and larger) installed as a carrier in a casing or tunnel or via open cut methods; smaller diameters (less than 12 in) HDD pipe installation
12.00 General Mechanical Engineering	4%	Design of pipe, fittings and mechanical restraints for large diameter pipes, tapping connections and temporary bypasses, design of piping schemes to support tunnel slurry operations and grouting
16.00 General Civil Engineering	3%	Understanding of general civil and site requirements such as paving, grade, drainage and landscaping to support site development. Possible subconsulting opportunity
	61%	

Small Business Development Signature:  Date: 01 / 03 / 2013

* Categories identified for CBE opportunities identified by SBD CM

- WASD is recommending 20 % CBE Goal

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CATEGORIES	%	COMMENTS
	61%	
		Prime and/or Subs
3.12 Underwater Engineering Inspection	2%	Special capability in conducting underwater inspections of structures which may include deep shafts. Submerged tunnel bores, submerged rock anchors, large diameter vertical casings, large diameter pipes.
5.01 Port and Waterway Systems Engineering Design	1%	Specialty knowledge in general port operations, navigational requirements and general engineering criteria relevant to construction under water ways. Possible subconsulting opportunity
9.01 Soils, Foundations and Materials Testing-Drilling, Subsurface Investigations and Seismographic Services	2%	Specialty knowledge in the performance of geotechnical explorations in the uplands and/or waterways and the development and implementation of instrumentation and monitoring programs to measure settlement of surfaces, structures, utilities and water levels. Possible subconsulting opportunity
9.02 Soils, Foundations and Materials Testing-Geotechnical and Materials Engineering Services	2%	Providing material testing and quality assurance service for product acceptance; testing for reliability/durability, water tightness, densities and pressure/hydrostatic of tunnel piping systems. Possible subconsulting opportunity
9.03 Soils, Foundations and Materials Testing-Concrete and Asphalt Testing Services	1%	Providing quality assurance and testing services for concrete and pavement installations; testing to include compressive strength, slump, air, density and proctor tests for product acceptance. Possible subconsulting opportunity
9.04 Soils, Foundations and Materials Testing-Non Destructive Testing and Inspection	1%	Possible subconsulting opportunity
10.05 Environmental Engineering-Contamination Assessment and Monitoring	1%	Providing such as environmental permitting, contamination screening, soil and ground water sampling, site characterization and developing and implementing environmental remedial action plans. Possible subconsulting opportunity
11.00 General Structural Engineering	25%	Structural design of deep water tight shafts with a min depth of 40 ft and in conditions with high water table and requiring tremie plugs and rock anchor supports, concrete segmental liners, thrust restraints for pipes in tunnel and in a trench. Possible subconsulting opportunity
13.00 General Electrical Engineering	1%	Design of temporary electrical systems and controls to support tunnel operations, pumping and dewatering systems and site trailers. Possible subconsulting opportunity
	97%	

- WASD is recommending 20 % CBE Goal

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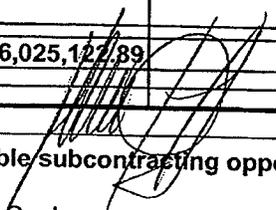
To: Business Support Services Division
From: SBD CM - Ileana Quintana
Department: Water & Sewer Department **Contact:** Patty David
Date: 01 / 02 / 2013

PROJECT NUMBER: DB12-WASD-01 (Construction)
PROJECT TITLE: Design Build services for the replacement of the existing 54 inch sanitary sewage force main pipeline from Central District WWTP to Fisher Island under Norris Cut Channel

SCOPE OF WORK/DESCRIPTION: Include: providing the craft, labor, equipment and materials as well as the management, supervision, quality control, cost and schedule controls, safety services for the construction/ installation, testing and commissioning activities associated with the replacing of the existing 54" SS force main that will extend from the CDWWRP to Fisher Island; construction includes: excavation of deep shafts in the uplands of Fisher Island and Virginia Key; tunneling from Virginia Key under Norris Cut in Biscayne Bay to Fisher Island, horizontal directional drilling to connect the existing Pump Station (PS 170) to the proposed 60" SS replacement force main, open cut installation of the force main on Virginia Key to the CDWWTP. Other activities will include: removal and disposal of excavated material, installing a 60" carrier SS force main, grouting the replacement pipe in the lined tunnel and in the shafts, connecting, testing and placing the new force main into service; the existing 54" SS force main that is to be replaced shall be cut at the terminus, purged of sewage, plugged and abandoned in a manner that will facilitate rehabilitation in the future.

SPECIAL REQUIREMENTS: Lead Contractors must have performed related projects completed within the last 10 years, including projects that are at least 50% complete; must demonstrate: performing the tunnel boring work on at least 2 tunneling projects consisting of concrete segmental liners, a min of 2,500 lf of installation and a min of 8 ft internal diameter; performing the installation of the carrier pipe within the tunnel bore shall have performed at least 1 project involving the installation of a carrier pipe of min 36" inside diameter and installation length that exceeds 1000 ft; performing the shaft construction shall have constructed at least 2 deep shaft constructions that were at least 40 ft deep (below grade); performing the HDD installation shall demonstrate having performed 1 project utilizing HDD with non-rigid pipe of at least 6" or more and for a distance of 1000 ft or more; performing the open cut installation of 60" pipe shall demonstrate having performed 1 project utilizing the open cut method with pipe of 48" inside diameter or more and total installed length of at least 1000 ft or more; Design/Build team includes a firm listing 1 project demonstrating experience of tapping into an operating sewer system pipe. **SUBCONSULTANTS:** No minimum qualifications requirement

TRADES	AMOUNT	COMMENTS
Shaft construction & waste removal	\$3,063,000.00	Primary scope of work include all line items noted. Possible subcontracting opportunity
Tunneling & waste removal	\$36,065,250.00	
Horizontal directional drilling & waste removal	\$369,900.00	
Carrier/product pipe installation	\$15,070,000.00	
Open cut pipe installation	\$4,893,708.50	
Cut/dewatering/plugging of existing force main	\$274,000.00	
Environmental/geotechnical & instrumentation monitoring	\$822,000.00	Possible subcontracting opportunity
Site preparation/restoration	\$1,251,184.50	
	\$61,809,043.00	
Contingency	\$3,090,452.15	
Dedicated allowance	\$9,271,356.45	
Permitting	\$1,854,271.29	
Total Construction Cost Estimate	\$76,025,127.89	

Small Business Development Signature:  Date: 01 / 07 / 2010

* Trades/Subtrades identified for possible subcontracting opportunities identified by SBD CM

- WASD is recommending 11% CSBE Goal.