Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street
Chicago, IL 60611

Legislation Details (With Text)

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Title:	Issue a purchase order and enter into an agreement with DHI Water & Environment, Inc. for professional engineering services for Contract 16-835-3C Energy Neutrality Feasibility Study at the Egan and the Hanover Park Water Reclamation Plants, in an amount not to exceed $353,841.97, Account 401-50000-612440, Requisition 1429750		
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Date	Ver.	Action By	Action	Result
9/15/2016	1	Board of Commissioners	Approved	Pass
9/15/2016	1	Committee of the Whole	Recommended	Pass

TRANSMITTAL LETTER FOR BOARD MEETING OF SEPTEMBER 15, 2016

COMMITTEE ON PROCUREMENT

Mr. David St. Pierre, Executive Director

Issue a purchase order and enter into an agreement with DHI Water & Environment, Inc. for professional engineering services for Contract 16-835-3C Energy Neutrality Feasibility Study at the Egan and the Hanover Park Water Reclamation Plants, in an amount not to exceed $353,841.97, Account 401-50000-612440, Requisition 1429750

Dear Sir:

Authorization is requested to issue a purchase order and enter into an agreement with DHI Water & Environment, Inc. (DHI) for professional engineering services for Contract 16-835-3C Energy Neutrality Feasibility Study at the Egan and Hanover Park WRPs.

On October 16, 2014, the Board of Commissioners granted its approval to enter into a Memorandum of Understanding (MOU) with Aarhus Vand A/S of Denmark (Aarhus Water) for engaging in a knowledge exchange program. As part of the collaborative agreement between the District and Aarhus Water, a number of common interests were identified, including energy management/energy neutrality, wastewater operations, and process control monitoring. The District has been working towards the goal of energy neutrality by the year 2023. DHI, as a consultant to Aarhus Water, provided professional engineering services for the Ega Water Treatment Plant in Denmark, which this year will become the first wastewater treatment facility in the world to produce 50 percent more energy than it consumes. Through the MOU, the District has had an opportunity to learn about DHI's software technology related to energy management and process control monitoring.

The scope of work consists of performing a feasibility assessment for energy neutrality at the Egan and

Hanover Park WRPs. The study will include four individual work packages and a workshop. Work Package 1 (WP1) will consist of the gathering and analysis of plant operational data by DHI to establish a baseline for process performance and energy consumption. Work Package 2 (WP2) will consist of site visits by DHI to perform interviews with District staff and gather additional data on facilities and controls at each of the plants. DHI will then prepare a catalog and present a one day Optimization Workshop for the District to review a list of feasible optimization alternatives to be explored by DHI. In Work Package 3 (WP3), DHI will combine optimization alternatives into various scenarios that will be tested using DHI's process model software to determine each scenario's impact on energy production, energy consumption and effluent quality, while also assessing all applicable costs, resulting in a ranked list of optimization scenarios. Work Package 4 (WP4) will include developed and detailed descriptions of the two highest ranked scenarios, which the District will be able to use to initiate subsequent future engineering projects.

The time allowed for services to be performed under this agreement is 250 days from the date of the notice to proceed. There are no provisions in the agreement for extension of time except for such reasonable period as may be agreed upon between parties.

Deliverables to be provided under this agreement include:

- WP1 Technical Memorandum - Plant Performance Baseline and Success Factor Prioritization
- WP2 Technical Memorandum - Process Limitation Analysis and Optimization Alternatives
- Optimization Concept Workshop hosted by DHI
- WP3 Technical Memorandum - Optimization Scenario Analysis and Ranking
- WP4 Technical Memorandum - Detailed Optimization Scenario Implementation Plan

DHI, the sole source provider of the DIMS.CORE software application and engineering services related to wastewater treatment plant optimization and energy neutrality, has submitted a proposal in the amount of $353,841.97 for the professional services required. The Engineering Department has reviewed the proposal and found it to be acceptable.

It is estimated that over 13 persons will be working on the contract at various times with an anticipated total of 2,004 man-hours. The average payroll rate will be approximately $67.14.

DHI shall be paid an hourly rate based on the direct labor rate in effect for the year the work is performed, times an overall multiplier of 2.36, plus reimbursable direct costs, up to a total amount not to exceed $353,841.97.

	ITEM	FEE	
1.	Prime Consultant Fee		
	A. Direct Labor		$ 82,368.00
	B. Overhead and Profit		$111,747.74
	C. Total Labor Fee		$194,115.74
2.	Reimbursable Direct Costs		$ 12,594.00
3.	PCE Sub-Consultants		
	A. MPR	$ 71,218.78	
	B. IDCS		$ 37,532.39
	C. Total PCE Sub-Consultants		$108,751.17
4.	Non PCE Sub-Consultants		
	A. Baxter & Woodman		$ 38,381.06

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Total Fee (Not To Exceed) $353,841.97

The firm MPR Engineering Corp., Inc. (MPR) is a Minority-Owned Business Enterprise/Small Business Enterprise. The firm Intelligent Design & Construction Solutions LLC (IDCS) is a Women-Owned Business Enterprise/Small Business Enterprise. All MBE/SBE and WBE/SBE firms will actively participate in providing services for the core elements required by the agreement.

DHI is registered to transact business and in good standing with the State of Illinois.

The agreement shall be subject to the approval of the Diversity Section as to whether the MBE/SBE and WBE/SBE firms are in accordance with the District's Affirmative Action Policy. The agreement shall be subject to the approval of the Law Department as to form and legality.

Inasmuch as the firm of DHI Water & Environment, Inc. possesses a high degree of professional skill and is the only source of supply of the DIMS.CORE software application and related engineering services, it is recommended that the Director of Procurement and Materials Management be authorized to issue a purchase order and enter into an agreement without advertising, per Section 11.4 of the Purchasing Act, in an amount not to exceed $353,841.97.

Funds are available in Account 401-50000-612440.

Requested, Catherine A. O'Connor, Director of Engineering, WSS:KMF
Recommended, Darlene A. LoCascio, Director of Procurement and Materials Management
Respectfully Submitted, Barbara J. McGowan, Chairman Committee on Procurement
Disposition of this agenda item will be documented in the official Regular Board Meeting Minutes of the Board of Commissioners for September 15, 2016