



Audit of Land Surveying Contracts

Project #17-02

Prepared by
Office of the Inspector General

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

October 12, 2017

Audit and Finance Committee Members:

Re: Audit of Land Surveying
Contracts - *Project No. 17-02*

This audit was performed pursuant to the Inspector General's authority set forth in Chapter 20.055, F.S. Our objectives were to determine whether work orders were assigned to professional survey firms in an equitable manner and District project managers negotiated fair work order pricing. Dan Sooker and I prepared this report.

Sincerely,

A handwritten signature in blue ink, reading "J. Timothy Beirnes".

J. Timothy Beirnes, CPA
Inspector General

TABLE OF CONTENTS

BACKGROUND	1
OBJECTIVE, SCOPE, AND METHODOLOGY	3
AUDIT RESULTS.....	4
Executive Summary	4
Distribution of Work Order Assignments	6
SBE Utilization	8
Work Order Negotiations	10
Contractor Performance Evaluations	10

BACKGROUND

In accordance with our FY 2017 Audit Plan, the Office of Inspector General conducted an Audit of Land Surveying Contracts.

The District issued a Request for Proposal (RFP), dated March 6, 2012, in conformity with Section 287.055, Florida Statute, the Consultants' Competitive Negotiation Act (CCNA Statute), to solicit for various types of surveying and mapping services. The CCNA Statute is a competitive process to solicit for professional services contractors. It is a qualification based contractor selection process that considers factors other than price, such as the ability of professional personnel; past performance; willingness to meet time and budget requirements; location; recent, current, and projected workloads of the firms; and the volume of work previously awarded to each firm by the agency. The CCNA Statute mandates a negotiated procurement for the acquisition of services for District projects that require certain licensed professionals. These include the professional services of architects, engineers, landscape architects, and registered land surveyors and mappers.

The RFP solicitation resulted in 55 responses from professional survey firms, of which 13 were shortlisted for oral presentations to a panel of five District employees. After oral presentations were completed, the panel evaluated each firm's written proposals and oral presentations and ranked the 13 firms. In accordance with CCNA criteria, the panel considered qualitative factors such as professional staff's abilities, previous District work, current and projected workload with the objective of distributing the work equitably to the selected firms. The District selected 8 of the 13 firms to enter into negotiations in accordance with the CCNA Statute.

Firms were ranked as follows:

Rank	Firms
1	Cooner & Associates*
2	Wantman Group,.Inc.
3	CivilSurv Design Group, Inc.
4	GCY, Inc.
5	Creech Engineers, Inc.**
6	Biscayne Engineering, Inc.
7	Woolpert, Inc.
8	AMEC Foster Wheeler Environment & Infrastructure

* Through an Asset Purchase Agreement, the contract was assigned to Cardno, Inc. on November 14, 2014

** Through an Asset Purchase Agreement, this contract was assigned to Bowman Consulting Group, Ltd. on October 16, 2013.

Multiple three-year work order contracts with 2 one-year renewal options were awarded. The budget is \$2 million per year, for a total of \$10 million, assuming the 2 one-year renewal options are exercised. Work order assignments; however, are contingent on funding availability.

OBJECTIVE, SCOPE AND METHODOLOGY

The primary objectives of our audit were to determine whether:

- Work orders were assigned to professional survey firms in an equitable manner.
- Professional survey firms achieved Small Business Enterprise¹ (SBE) utilization goals.
- District project managers negotiated work order pricing.
- Project managers prepared contractor evaluations upon project completion.

To accomplish our objectives, we performed the following:

- Documented the work order assignment process.
- Reviewed work order assignments for compliance with established procedures.
- Documented the work order negotiation process.
- Analyzed SBE utilization for compliance with SBE participation goals.
- Reviewed District prepared contractor evaluations.
- Interviewed Procurement Bureau and Survey and Mapping Section staff.

The scope of our audit included work order assignments under the Professional Land Surveyor Projects for the period October 2012 through December 2016.

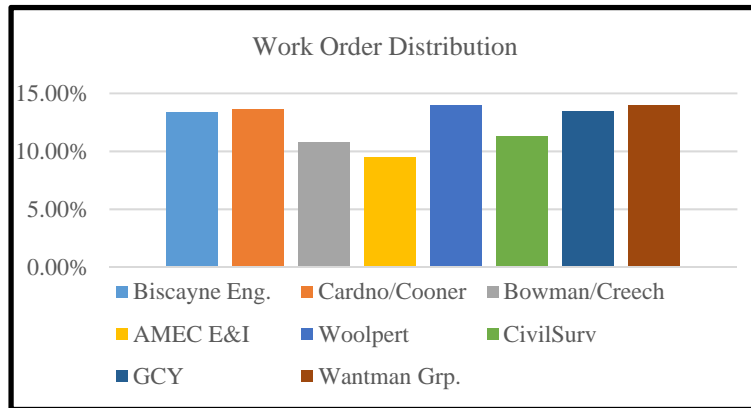
We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹ District Small Business Enterprise (SBE) means a business certified by the District, whose three-year average gross receipts, including affiliates, shall not exceed \$13 million if the business provides construction, \$5 million if the business provides commodities, and \$6 million if the business provides services.

AUDIT RESULTS

Executive Summary

The District has done an effective job of distributing work order assignments evenly to the eight survey firms awarded contracts under the Survey and Mapping solicitation. Through



December 31, 2016, the District distributed 84 work order assignments at a cost of \$3.7 million. Survey firm work order assignments, as a percentage of the \$3.7 million, range from a high of 13.99% to Woolpert and a low of 9.52% to AMEC E&I, Inc. (AMEC Inc.). Our

review of work order assignments issued after December 31, 2016, revealed that survey firms with the least amount of work order assignments, which included AMEC, Inc. received approximately 87% of new awards.

Overall, SBE participation of firms awarded contracts under the Survey and Mapping solicitation is 68% through December 31, 2016. While most firms met or exceeded its SBE participation goals, we found that three firms: Cardno, Inc., Bowman Consulting Group, Ltd. (Bowman Group) and AMEC Inc. were deficient. However, a review of SBE participation in work orders issued to AMEC, Inc. subsequent to December 31, 2016, revealed that AMEC Inc. subcontracted \$48,460 of the work to SBE firms and met its 30% SBE utilization goal. While there is time before the contract expires for the Bowman Group and Cardno, Inc. to reach its SBE utilization goals, it is contingent on the firms assigning sufficient work to SBEs on future work order assignments. The final SBE commitment results should be reported on the contractor's final evaluation.

District project managers are responsible for assigning work to survey firms primarily based on the cumulative total of work order assignments and then negotiating work order pricing. Our review of e-mails, detailed spreadsheets and other documentation revealed that District project managers negotiated on the District's behalf and their effort resulted in proposed work order pricing reductions.

Our review of survey firms' performance evaluations for completed work orders indicated that project managers were not consistent in completing the evaluations in a timely manner. To improve the performance evaluation process, the Survey and Mapping Section should develop a system that alerts project managers when performance evaluations are due. We recommend that the Survey and Mapping Section maintain an Excel spreadsheet, which should include performance evaluation due dates.

Distribution of Work Order Assignments

The District issues work orders on an as needed basis to the eight professional survey firms that were awarded contracts to provide survey and mapping services. To supplement these firms, the District recently contracted with the Florida Department of Environmental Protection (FDEP). During the period, FDEP was assigned \$95,000 for two work order assignments.

Survey work orders assignments distributed to the eight professional survey firms and the total assignment percentages through December 31, 2016 are as follows:

Survey Firms	Work Order Assignments	% of Total Assignments
Biscayne Engineering Company, Inc.	\$ 495,878	13.33%
Cardno, Inc. / Cooner & Associates, Inc.	507,316	13.64%
Bowman Group / Cheech Engineering	400,169	10.76%
AMEC Environment & Infrastructure, Inc.	353,841	9.52%
Woolpert, Inc.	520,208	13.99%
CivilSurv Design Group, Inc.	420,274	11.30%
GCY, Inc.	501,616	13.49%
Wantman Group, Inc.	519,344	13.97%
Total	\$ 3,718,646	100%

During the period October 1, 2012 through December 31, 2016, the District issued 84 work orders and revisions at an average cost of approximately \$44,000 per work order. The District's primary objective is to distribute the work as evenly as practical to the survey firms but there are other factors that are sometimes considered such as firm location and firm expertise. The Procurement Bureau and the Survey and Mapping Section maintain a cumulative schedule of previous work order allocations that is reviewed by the project managers and the Contract Specialist before determining the next firm for assignment. The project manager is responsible for assigning the work order to a firm but consults with Procurement's Contract Specialist before finalizing firm selection.

We found that the District has been effective in achieving its objective of distributing survey work evenly to the eight professional survey firms. This has sometimes resulted in the District distributing the work for large survey projects to several firms so that no one firm received an excessive portion of the work order assignments. For a Stormwater Treatment Area 1 West project estimated to cost \$206,236, the project manager assigned the work to the Wantman Group, Inc. (\$104,880) and to Woolpert, Inc. (\$101,356). Another survey project costing \$693,969 was

assigned to GCY, Inc. (\$328,946) and Woolpert, Inc. (\$365,023). We noted that firms assigned a portion of these large work orders often were not awarded work orders until other firms caught up and the cumulative distributions were approximately even before their next assignment. For firms that had been awarded the least amount of work, AMEC Inc., CivilSurv Design Group, Inc., and the Bowman Group, we found that these firms received approximately 87% of the \$167,945 in work order assignments issued in January 2017 and February 2017.

While distributing the work for large survey projects to several firms is an effective approach to assigning work orders, another option to consider is to compete the larger survey projects with several firms that are approved under the Survey and Mapping solicitation. We find this type of procurement provides a more competitive approach and could be beneficial to the District. We recommend that the District consider using this procurement approach for larger projects.

Recommendation

- 1. Consider competing larger survey projects with several firms that are approved under the Survey and Mapping solicitation.**

Management Response: This recommendation will be taken into consideration in the selection process for each individual work order. The Survey & Mapping Section will make all efforts to split large projects estimated to be more than \$300,000 to two or more consultants based on project location, consultant expertise, and equitable cost distribution, when it will be cost effective and the nature of the project will allow a physical split.

Responsible Division: Survey & Mapping Section with Procurement Bureau approval.

Estimated Completion: This recommendation will be implemented immediately. Each individual project will be evaluated prior to work order development.

SBE Utilization

Each of the eight professional survey firms that were awarded contracts to provide survey and mapping services, committed to SBE participation during the proposal process. Participation goals are established on a work order basis and can vary depending on the nature of the work assigned and the availability of SBE contractors, but Biscayne Engineering Co., Inc., Cooner and Associates, Creech Engineering, Civilsurv Design Group, and GCY, Inc., are District certified SBE firms, therefore, SBE participation is 100%. Non-SBE firm's participation goal was 25%.

Procurement's SBE Unit is responsible for monitoring SBE utilization. Prime contractors are required to remit SBE utilization with its invoice payment requests to the District. The Unit has several processes and procedures to track survey firm compliance, which includes review of SBE reports generated by the District's financial system on a regular basis. Compliance processes and procedures also include random confirmation with subcontractors of the reported amounts paid to SBE subcontractors to ensure that the payment and participation has been reported accurately. If it is reported that SBE subcontractors have not been paid for the work completed on a District project in accordance with the work order contract, the SBE Unit may intervene with the prime contractors. The SBE Unit has not received any notices concerning delinquent prime contractor payments from SBE subcontractors related to survey work orders.

The following table summarizes SBE utilization reported by professional survey firms through December 31, 2016.

Firm Name	Proposed Participation	Work Order Assignments	SBE Commitment**	% SBE Utilization to Date
Biscayne Engineering Co., Inc.*	100%	\$ 495,878	\$ 495,878	100%
Cardno, Inc.	25%	84,353	8,490	10%
Cooner & Associates, Inc.*	100%	422,963	422,963	100%
Bowman Consulting Group, Ltd	25%	105,230	19,904	19%
Creech Engineers, Inc.*	100%	294,939	294,939	100%
AMEC, Inc.	30%	353,841	74,953	21%
Woolpert, Inc.	25%	520,208	163,472	31%
Civilsurv Design Group, Inc.*	100%	420,274	420,274	100%
GCY, Inc.*	100%	501,616	501,616	100%
Wantman Group, Inc.	25%	519,344	128,000	25%
Total		\$ 3,718,646	\$ 2,530,489	68%

* Firms are certified District SBEs.

** SBE commitment for non-SBE contractors is established when the work order agreement is signed.

Overall, SBE participation is 68% through December 31, 2016, which is largely attributable to contract awards to five District certified SBE firms. All work orders issued to these SBE firms are considered 100% SBE participation. As of March 6, 2017, we found that SBE prime and subcontractor have been paid approximately \$2.36 million, which represents 93% of the total SBE commitment of \$2.53 million. The SBE utilization table also indicates that currently three firms, Cardno, Inc., Bowman Group and AMEC, Inc. are deficient in meeting SBE participation goals. A review of work orders issued to AMEC, Inc., subsequent to year end, indicated that AMEC, Inc. has committed to SBE participation of \$48,560, which will increase the firm's SBE Utilization to 30% and meet its goal. The Bowman Group and Cardno, Inc. were assigned contracts well into the five-year term through an asset purchase agreement with Creech, Inc. and Cooner & Associates, Inc., respectively. While there is time before the contract expires for Bowman Group and Cardno, Inc. to reach its SBE utilization goals, it is contingent on the firms assigning work to SBEs on future work order assignments that is sufficient to meet its goals. A reconciliation of survey firm's SBE commitment and actual participation is completed at the end of the contract period by the SBE Unit to ensure that goals have been met. Actual results should be reported on the contractor's final evaluation.

Recommendation

2. Report actual SBE utilization results in the final performance evaluations.

Management Response: The Survey and Mapping Section's project manager will incorporate the percentage of SBE utilization into the final performance evaluation report based on submitted invoices.

Responsible Division: Survey & Mapping Section

Estimated Completion: This recommendation will be implemented immediately.

Work Order Negotiations

The District's project managers are responsible for negotiating the cost for each work order with the assigned survey firm. The negotiation process primarily consists of reaching agreement on staffing levels, the management oversight required, and the reasonableness of projected expenses. The survey firm's staffing rates have been previously negotiated and included in an exhibit to the executed contract.

We selected a sample of 10 work order assignments totaling \$1.4 million to determine whether District project managers negotiated work order pricing and adequately documented the negotiation process. Our review of e-mails, detailed spreadsheets and other documentation revealed that District project managers' negotiation efforts resulted in proposed work order pricing reductions.

Contractor Performance Evaluations

Project managers are required to prepare interim and final contractor performance evaluations in a timely manner for work orders issued to survey firms. According to Procurement policy, project managers are responsible for evaluating contractor performance on an on-going basis. These evaluations are archived and used to appraise contractor competence for future Request for Proposals and RFB solicitations and work orders.

Our review of survey firms' performance evaluations for completed work orders indicated that project managers were not consistent in completing the evaluations in a timely manner. To improve the performance evaluation process, the Survey and Mapping Section should develop a system that alerts project managers when performance evaluations are due. We recommend that the Survey and Mapping Section maintain an Excel spreadsheet which should include performance evaluation due dates.

Recommendation

- 3. Consider developing an Excel spreadsheet to monitor timely completion of interim and final performance evaluations.**

Management Response: The Survey & Mapping Section agrees to develop a tracking tool (e.g. spreadsheet) to avoid missing deadlines for the submittal of Performance Evaluations to

Procurement. Additionally, the project managers will keep an electronic copy of the performance evaluation in the share project folder. This is the final quarter of the 5-year continuing services survey contracts. Performance evaluations will be required as part of the final invoice package to Procurement to make sure they are completed for any open work orders.

Responsible Division: Survey & Mapping Section.

Estimated Completion: This recommendation will be implemented immediately and the tracking tool will be completed by September 30, 2017