



**Audit of Negotiated
Work Order Contracts**
Project #18-18

Prepared by
Office of the Inspector General

J. Timothy Beirnes, CPA, Inspector General
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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

November 14, 2019

Governing Board Members

Re: Audit of Negotiated Work
Order Contracts - *Project No.*
18-18

This audit was performed pursuant to the Inspector General's authority set forth in Chapter 20.055, F.S. Our audit objective primarily focused on determining whether work orders issued under the OMRR&R Project, and Survey and Mapping services were distributed to qualified firms in an equitable manner and project managers negotiated fair and reasonable terms that consider the District's best interest. Dan Sooker and I prepared this report.

Sincerely,

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

J. Timothy Beirnes, CPA
Inspector General

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BACKGROUND

In accordance with our Audit Plan, the Office of Inspector General conducted an audit of the negotiated work order contract process for the Operation and Maintenance, Repair, Replacement and Rehabilitation project (OMRR&R), and for survey and mapping services. This is a recurring audit project, in which our office periodically audits work order contracts to ensure that project managers are negotiating fair and reasonable terms that take into account the District's best interest.

Work order contracts provide significant efficiency to the procurement process and are appropriate when the exact timing, quality or need for services is unknown or unpredictable. In the normal course of business, the District contracts with multiple professional firms under work order type contract arrangements for OMRR&R and survey and mapping services. Contracts are typically for a three-year period with two 1-year extensions, which has been the District's practice for many years.

Professional firms are prequalified through a Request for Proposal (RFP) or Request for Qualifications process using the Consultants Competitive Negotiation Act (CCNA) Statute, which is a competitive/qualifications-based process that mandates a negotiated procurement for services requiring certain licensed professionals including architects, engineers, landscape architects, registered land surveyors, and mappers. This process considers factors other than price, such as the skills of professional personnel; past performance; willingness to meet time and budget requirements; location; workloads; and the volume of work previously awarded to firms.

In accordance with the CCNA process, the District issued an RFP dated March 31, 2014, to solicit qualifications and technical proposals from full-service engineering firms for the OMRR&R. The District also issued an RFP dated May 26, 2017 to solicit for technical proposals from professional survey and mapping firms. After a selection committee reviewed the proposals, the District awarded multiple three-year work order contracts, which also included two 1-year options to 15 professional engineering firms for OMRR&R¹, and 11 to survey and mapping firms.

¹ Shortly after the OMRR&R contract awards, one of the 15 firms merged with a professional engineering firm approved under another District program. As a result, the merged firm is not eligible to receive OMRR&R work order awards and post-merger work orders are distributed among 14 firms.

Fixed labor rates and other costs are negotiated as part of the initial three-year contract and as services are needed, work orders are awarded and the level of effort and hours are negotiated.

OBJECTIVE, SCOPE AND METHODOLOGY

The primary objectives of our audit were to select a sample of work order contracts awarded for OMRR&R, and Survey and Mapping services to determine whether:

- 1) work orders were assigned to firms in an equitable manner, and
- 2) project managers negotiated fair and reasonable terms that consider the District's best interest.

To accomplish our objectives, we performed the following:

- Reviewed the work order assignment process.
- Reviewed e-mails, spreadsheets and other documentation supporting the negotiation process.
- Interviewed District staff from the Procurement Bureau and the Engineering and Construction Bureau.

The scope of our audit included OMRR&R work orders executed during the period August 2014 through April 2019, and for survey and mapping work orders awarded January 2018 through April 2019. We did not review work orders assigned under the Professional Engineering Services for Restoration Projects. We recently conducted an audit of work orders assigned under the Professional Engineering Services for Restoration Projects, dated November 16, 2016 that found that work orders issued under this Project were assigned in an equitable manner among qualified engineering firms and District project managers were diligent in negotiating work order pricing.

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.

AUDIT RESULTS

Executive Summary

Our review of OMRR&R and Survey and Mapping work order assignments revealed that project management and Procurement staff complied with established processes and internal control are working as prescribed. Further, we found that work order awards were assigned in an equitable manner among qualified firms. Our review of e-mails, detailed spreadsheets and other documentation supporting work order pricing revealed that District project managers were diligent in negotiating OMRR&R and Survey and Mapping work orders and their efforts sometimes produced significant reductions in proposed work order pricing.

We reviewed an OMRR&R work order project where the District's project manager negotiated a \$208,000 reduction from a firm's initial proposal of \$733,615, by streamlining the firm's approach and eliminating duplicative on-site hours spent on engineering during construction and construction management services. We reviewed another work order negotiation where the project manager negotiated \$98,332 in reductions from an initial proposal of \$332,835, primarily through a shift of higher priced staff hours to lower level staff without sacrificing quality.

Our review also revealed that proposed work order pricing is not always negotiated. For small work orders, we found instances where the initial pricing was accepted by the project manager. We also found instances where documentation supporting work order negotiations could be improved. Our Office conducts audits of the negotiations process routinely, and we recommend that project managers retain key negotiation documents supporting the final pricing for the contract period.

Distribution and Pricing Negotiation of OMRR&R Work Orders

The District's goal of the OMRR&R program is to distribute work orders as equally as possible among approved professional engineering firms; however, the District does not guarantee a minimum level of work. These firms are all capable of providing a variety of engineering services. To achieve the distribution goal, the District has established internal control procedures over work order assignments that requires multiple staff reviews and approvals to issue a work order, thus, no one employee has complete control over the process. Project management and Procurement staff work together to assign work orders equitably to approved engineering firms.

When a new OMRR&R project is identified, the District's project manager develops a budget and scope of work and requests Procurement to provide a list of the next three or four engineering firms next in line for work order assignment. Procurement maintains a cumulative schedule of previously issued work orders that is used to determine the next firms for assignment. The primary factor for distributing work orders to approved firms is the dollar amount of previous work assigned; however, there are other factors, such as project experience and the firm's location, that are sometimes considered when it is determined to be most beneficial to the District, although this is infrequent.

Based on the cumulative spreadsheet, Procurement's Contract Compliance Specialist provides the list to the project manager to start negotiations with the first of the selected firms. If an agreement can't be reached with the first firm, the project manager moves to the next firm in line and so forth until a firm is selected and assigned a work order. Approval by the Bureau Chief of Engineering and Construction is required. This assignment process has been used in past OMRR&R work order contracts.

For the period August 2014 through April 2019, 15 firms were approved for OMRR&R work order assignments. Work order totals were as follows:

Firm Name	Execution Date	Expiration Date	Total Work Order Amount	% of Total Work Orders
Mock, Roos & Associates, Inc.	8/22/2014	8/21/2019	\$2,739,430	7.91%
Stanley Consultants, Inc.	8/28/2014	12/31/2019	5,192,807	14.99%
R. J. Behar & Co., Inc.	10/23/2014	9/30/2020	3,058,841	8.83%
King Engineering Associates, Inc.	10/22/2014	1/15/2020	3,120,323	9.01%
Hazen and Sawyer, P.C.	10/22/2014	10/21/2019	2,533,745	7.31%
EAC Consulting, Inc.	10/22/2014	10/21/2019	1,805,228	5.21%
Burns and McDonnell Engineering. Co., Inc.	10/6/2014	10/5/2019	1,484,403	4.28%
T.Y. Lin International	9/29/2014	9/28/2019	2,013,819	5.81%
A.D.A. Engineering, Inc.	8/19/2014	2/18/2020	1,769,714	5.11%
AECOM Technical Services, Inc.*	11/14/2014	9/21/2019	-	-
Atkins North America, Inc.	9/22/2014	9/21/2019	1,560,459	4.50%
Parsons Environment & Infrastructure Group, Inc.	10/6/2014	10/5/2019	3,055,544	8.82%
Black and Veatch Corporation	10/31/2014	10/30/2019	1,842,380	5.32%
CSA Central, Inc.	10/29/2014	10/28/2019	1,998,097	5.77%
CES Consultants, Inc.	9/22/2014	9/21/2019	2,469,548	7.13%
Total			\$34,644,338	100.00%

* AECOM Technical Services, Inc. merged with a professional engineering firm approved under the District's Restoration Services program. Engineering firms, as prime contractors, are restricted to either the approved contractor list of the Restoration Projects or the OMRR&R Project, but not both. As such, the firm was not eligible to receive work order awards under the OMRR&R program.

Through April 30, 2019, the District has executed 130 work orders totaling \$34.6 million, which represents approximately 46% of the total authorized expenditures of \$75 million. The average OMRR&R work order was \$266,495. Our review of engineering firm work order assignments indicated that the District complied with its established processes and internal controls are working as prescribed. Overall, we found that work orders were assigned in an equitable manner, all firms received multiple awards; however, through April 30, 2019, engineering firms assigned work orders related to larger District projects received a greater proportion of the work, which is not unusual and justified as follows:

- Stanley Consultants, Inc. received only five work orders, but one was for construction management support and material testing services for the S-5A Repowering and Automation. According to the project manager, this project is complex and Stanley

Consultants, Inc. has the required experience and staff skill levels. Work orders for this project were \$4.3 million.

- R. J. Behar & Co. (Behar), King Engineering Associates, Inc. (King) and Parsons Environment & Infrastructure Group, Inc. (Parsons) received a greater percentage of the work orders when compared to the other firms. Behar was assigned two work orders that were above the average work order total for the Cypress Weir design (\$378,925) and S-151 Structure Replace and Automation project (\$354,034). King received large work orders for Big Cypress Basin (BCB) Field Station Relocation Project construction management service (\$670,309) and SCADA Electronics Project (\$480,042). Parsons received nine work orders, of which one work order was valued at approximately \$1.3 million for the design and oversight of the S-9 and S-9A Trash Rakes and Pump Station.

Our review of work order activities May 1, 2019 through July 19, 2019 revealed that the total OMRR&R work order balance increased only \$679,667 to \$35,324,005. Most of the change activities were due to revisions to existing work orders, but a work order for \$253,731 was issued to CSA Central, Inc. for the development and calibration of C-8 and C-9 basins flood models. CSA Central, Inc. was one of the firms with a lower work order balance in comparison to the approved firms and was due for an assignment.

OMRR&R Work Order Negotiations

To determine whether work order pricing was diligently negotiated, we reviewed 24 OMRR&R work orders totaling \$7.1 million. We selected a judgmental sample since it is considered the preferred methodology based on consideration of the audit population's size and characteristics, as well as audit efficiency and professional judgement. We believe the sample, along with the results of the audit tests, provide reasonable assurance for us to determine whether there is appropriate evidence that the work order pricing was negotiated by District project managers.

The District's project managers are responsible for negotiating the cost for each work order with the selected engineering firm. The negotiation process primarily consists of reaching agreement on staffing levels and the management oversight required, hours necessary to complete

the project tasks, and the reasonableness of project expenses. The engineering firm's staffing rates have been previously negotiated and included in an exhibit to the executed contract.

Our review of e-mails, detailed spreadsheets and other documentation revealed that District project managers were diligent in negotiating on the District's behalf and their effort sometimes resulted in significant reductions in proposed work order pricing. We noted instances where project managers negotiated considerable reductions in the level of effort by matching the work to the appropriated staff level needed and shifting the hours from higher priced staff. We reviewed an OMRR&R work order project where the District's project manager negotiated a substantial reduction of approximately \$208,000 from a firm's initial proposal of \$733,615, by streamlining the firm's approach and eliminating duplicative on-site hours spent on engineering during construction and construction management services. We reviewed another work order negotiation where the project manager negotiated \$98,332 in reductions from an initial proposal of \$332,835, through a shift of higher priced staff hours to lower level staff without sacrificing quality. However, we also found instances where documentation supporting work order negotiations could be improved. Our Office conducts audits of the negotiations process routinely, and we recommend that project managers retain key negotiation documents supporting the final pricing for the contract period.

Distribution and Pricing Negotiation of Survey and Mapping Work Orders

For District survey and mapping projects, the primary objective is also to distribute work order assignments as evenly as practical. The Survey and Mapping Section Administrator (Section Administrator) is responsible for work order assignments, which differs from the OMRR&R work order selection process. When a new survey and mapping project is identified, the Section Administrator reviews the cumulative schedule of previously issued work orders maintained by Procurement and assigns the work order to the firm that has received the least amount of work unless it is in the District's best interest to assign the work order to another firm because of project experience, firm location or other factors.

Procurement maintains an oversight role over the work order assignment process. As such, adequate internal controls are in place to ensure compliance with program goals. For the period January 2018 through April 2019, 11 survey and mapping firms were approved for work order assignments. Work order totals were as follows:

Firm Name	Contract Execution Date	Contract Expiration Date	Total Work Order Amount	% of Total Work Orders
Cardno, Inc.	1/8/2018	1/8/2021	\$243,764	13.86%
Bowman Consulting Group, Ltd.	1/8/2018	1/8/2021	115,204	6.55%
Woolpert, Inc.	1/8/2018	1/8/2021	183,790	10.45%
Pickett and Associates, Inc.	1/8/2018	1/8/2021	122,200	6.95%
GCY, Inc.	1/8/2018	1/8/2021	97,288	5.53%
Whidden Surveying & Mapping, Inc.	1/8/2018	1/8/2021	83,118	4.72%
Biscayne Engineering Company, Inc.	1/8/2018	1/8/2021	231,744	13.17%
Dewberry Engineers, Inc.	1/8/2018	1/8/2021	60,110	3.43%
Wantman Group, Inc.	1/8/2018	1/8/2021	298,424	16.96%
AIM Engineering & Surveying, Inc.	1/8/2018	1/8/2021	145,205	8.25%
Keith and Associates, Inc.	1/8/2018	1/8/2021	178,273	10.13%
Total			\$1,759,120	100%

Through April 30, 2019, the District has executed 36 work orders totaling \$1.76 million, which represents approximately 25% of the total authorized expenditures of \$7 million. The average work order is \$48,864. Our review of the work order assignments indicated that the District complied with its established processes and internal controls are working as prescribed. Overall, we found that work orders were assigned in an equitable manner with all firms receiving multiple awards; however, we noted that the survey and mapping firms of Cardno, Inc., Biscayne Engineering, Inc., and Wantman, Inc. received a greater proportion of the work order assignments through April 30, 2019 which is not unusual and justified. We reviewed the work order assignments to these firms to determine the reason for the distribution variance and noted the following:

- Cardno is headquartered in Fort Myers and received three work orders totaling \$243,764 for projects in the west coast of Florida because of proximity to the work.
- Biscayne Engineering Company, Inc. is in Miami and received two work orders totaling \$206,028 for projects in Miami-Dade County.
- The increased work order total to the Wantman Group, Inc., as compared to the other firms, is primarily due to a work order for \$151,800 related to the C-44 Stormwater Treatment Area. This work order was originated by Office of Counsel.

Our review of subsequent work order activities, April 30, 2019 through July 19, 2019, revealed that the total work order balance increased only \$155,184 to \$1,914,304. We found that AIM Engineering and Survey, Inc. received a work order for \$92,441. Further, the Section Administrator is in the process of assigning a work order estimated at \$800,000 to Dewberry Engineering, Inc., which was one of the firms with a lower work order balance in comparison to the other firms and was due for an assignment. Dewberry Engineering, Inc. also has valuable LIDAR experience in the project area that is very beneficial for this work order, which may result in negotiated cost savings to the District.

Variances are not unusual as project management and procurement staff work towards equal work order distribution. Our review of work order distributions from the last survey and mapping work order contracts issued between FY 2013 through FY 2017 revealed that work orders were distributed in a reasonably equitable manner.

Survey and Mapping Negotiations

To determine whether work order pricing was negotiated by survey and mapping staff, we reviewed 11 work orders totaling \$631,697. We selected a judgmental sample since it is considered the preferred methodology based on consideration of the audit population's size and characteristics, as well as audit efficiency and professional judgement. We believe the sample, along with the results of the audit tests, provide reasonable assurance for us to determine whether there is appropriate evidence that the work order pricing was negotiated by District project managers.

Our review of e-mails, detailed spreadsheets and other documentation revealed that District project managers negotiated on the District's behalf and their effort sometimes resulted in reductions in proposed work order pricing; however, the average survey and mapping work order is under \$50,000, thus less complicated and sometimes require minimal or no negotiations. We also found instances where documentation supporting work order negotiations could be improved and recommend that the project managers retain key documents supporting price negotiations for the contract period.

Recommendation

- 1. Retain key documents supporting price negotiations including e-mails, spreadsheets etc. for the 5-year contract period.**

Management Response:

1. The Survey and Mapping Section has developed a process for the storage of key documents and a tracking form to summarize cost negotiations for each project (see Appendix 1). The Section maintains a dedicated project sub-folder for ease of storage and retrieval of supporting documents including emails, spreadsheets and any other documents related to cost negotiations for the scope of services.
2. Additionally, the Engineering and Construction Project Managers will receive direction to file not only the executed scopes of work in Documentum, but also the emails and spreadsheets generated during negotiations.

-
3. Procurement staff members will continue to retain records associated with a negotiated contract within the Procurement Bureau's respective contract file and will provide the back-up documentation to the respective project managers as requested.

Responsible Divisions: Division of Ecosystem Restoration and Capital Projects, Engineering and Construction Bureau and Division of Administrative Services, Procurement Bureau

Estimated Completion: Completed

Survey and Mapping Section- Cost negotiation records retention practices and documentation of processes are in-place and have been implemented in the Survey Section's project workflow. Engineering and Construction Bureau- Project Managers are adding the additional information to Documentum.

Procurement Bureau- Procurement staff support the management response.

C: Drew Bartlett
John Mitnik
Richard Virgil
Jennifer Leeds
Alan Shirkey
Johanna Labrada
Michael O'Brien

**S.F.W.M.D. Surveying and Mapping Continuing Service Contract 2017-2023
PROJECT COST NEGOTIATIONS ACTION SUMMARY FORM**

DATE:

PROJECT: (Project Name)

PROJECT WO: (WO # if known)

SURVEY PROJECT PM: (Assigned survey PM)

PROJECT CLIENT: (Business area req. the survey)

FIRM SELECTED: (name firm & contract assigned PM for the firm)

ESTIMATED COST: 000,000.00 (+/- internal staff estimate)

PROPOSAL/COST PROPOSAL RECEIVED FORM CONSULTANT

ROUND 1: Date Received: 00/00/2019 Sub. No. 1 Proposed Cost = \$

Check all that apply:

- ☐ Total Cost estimate is within expectations/estimates of project.
- ☐ Total Man-Hours/Task breakdown are within expectations/estimates of project.
- ☐ ACCEPTED Cost & Man-Hour Proposal. NO further negotiations required.
- ☐ NOT ACCEPTED Cost & Man-Hour Proposal. *Move into ROUND 2 negotiations.*
- ☐ **NOTES:** (Any other notes or items related to purpose of the selection)

ROUND 2: Date Received: 00/00/2019 Sub. No. 2 Proposed Cost = \$

Check all that apply:

- ☐ Total Cost estimate is within expectations/estimates of project.
- ☐ Total Man-Hours/Task breakdown are within expectations/estimates of project.
- ☐ ACCEPTED Cost & Man-Hour Proposal. NO further negotiations required.
- ☐ NOT ACCEPTED Cost & Man-Hour Proposal. *Move into ROUND 3 negotiations.*
- ☐ **NOTES:** (Any other notes or items related to purpose of the selection)

ROUND 3: Date Received: 00/00/2019 Sub. No. 3 Proposed Cost = \$

Check all that apply:

- ☐ Total Cost estimate is within expectations/estimates of project.
- ☐ Total Man-Hours/Task breakdown are within expectations/estimates of project.
- ☐ ACCEPTED Cost & Man-Hour Proposal. NO further negotiations required.
- ☐ NOT ACCEPTED Cost & Man-Hour Proposal. *Consider ending negotiations, move onto another firm on the contract list.*
- ☐ **NOTES:** (Any other notes or items related to purpose of the selection)

RESULTS TALLY:

ORIGINAL No. 1 COST EST. = \$000,000

FINAL/ACCEPTED COST EST. = \$000,000

☐ **COMPLETED BY:** (Survey Section PM name)

☐ **CONCURRENCE SURVEY SECTION ADMINISTRATOR:** Michael O'Brien, Date: 00/00/2019

Created by Michael OBrien
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