

**PURCHASING DEPARTMENT
JOB ORDER CONTRACTING
AUDIT 10-01
JULY 20, 2010**



CITY OF TAMPA

Pam Iorio, Mayor

Internal Audit Department

Roger Strout, Internal Audit Director

July 20, 2010

Honorable Pam Iorio
Mayor, City of Tampa
1 City Hall Plaza
Tampa, Florida

RE: Job Order Contracting, Audit 10-01

Dear Mayor Iorio:

Attached is the Internal Audit Department's report on Job Order Contracting.

The Purchasing Department has already taken positive actions in response to our recommendations. We thank the management and staff of the Purchasing Department, Contract Administration, Facility Management, the City's JOC Project Managers, JOC Contractors, and JOC Consultant for their cooperation and assistance during this audit.

Sincerely,

/s/ Roger Strout

Roger Strout
Internal Audit Director

cc: Darrell Smith, Chief of Staff
Bonnie Wise, Chief Financial Officer
Steve Daignault, Administrator of Public Works & Utility Services
Mark Huey, Administrator of Economic and Urban Development
Santiago Corrada, Administrator of Convention Center, Tourism, Recreation, and Cultural Arts
Greg Spearman, Director of Purchasing
Irvin Lee, Director of Public Works
David Vaughn, Director of Contract Administration

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/s/ Gary S. Chapman

Auditor

/s/ Roger Strout

Audit Director

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BACKGROUND

The City's Job Order Contracting (JOC) program is based on a competitively bid indefinite delivery, indefinite quantity contract between the City and pre-selected construction contractors. Contractors bid an adjustment factor to be applied to a catalog of pre-priced construction tasks. While contractors are guaranteed a minimum level of work, the City is under no obligation to continue to work with a problem contractor. Therefore, contractors compete for JOC contracts on the basis of performance as well as price.

JOC originated in the 1980s to mitigate some of the inherent problems with traditional bidding methods. One apparent advantage of JOC over traditional bidding is the elimination of bid solicitation for each project. Individual project contracts, detailed plans and specifications, and bid evaluation are not necessary. JOC projects are determined by a scope of work prepared by the user department. The contractor breaks the project down into tasks and quantities, which are extended by catalog pricing. A fixed fee project proposal is generated after applying the contractor's adjustment factor. After reviewing the detailed tasks and quantities for reasonableness, the proposal can be accepted or rejected. This simplified process allows projects to begin within 20 to 30 days from the date of request. Traditional methods can take up to six months or longer.

Job Order Contracting Activity by Department (July 2007 to September 2009)

Contract Administration	\$1,261,820
Convention Center	1,045,491
Parking	57,390
Parks & Recreation	619,055
Riverwalk	32,650
Solid Waste	42,128
Stormwater	207,184
Traffic Engineering	305,103
Traffic Operations	837,421
Traffic Signals	189,927
Transportation	2,819,887
Water	2,125,513
Total	<u><u>\$9,543,568</u></u>
JOC Consultant Fees	\$318,218
Consultant Fees to Total Construction Costs ¹	3.3%

Source: PROGEN (JOC Financial Processing and Project Tracking Software)

¹ Exhibit A of the Consultant's Agreement allows for additional fees based on specified hourly labor rates for additional services provided to the City. The City has not requested or received any such additional services.

STATEMENT OF OBJECTIVES

This audit was conducted in accordance with the Internal Audit Department's FY10 Audit Agenda. The objectives of this audit were to:

1. Review and compare project costs, including labor, let through the Job Order Contracting process versus traditional bidding methods and ensure timely capitalization of completed projects.
2. Ensure construction contractor compliance costing non pre-priced work tasks.
3. Determine user departments' perceptions of the advantages and disadvantages of the Job Order Contracting program.
4. Determine whether task pricing in the Construction Task Catalog reflect current market conditions.

STATEMENT OF SCOPE

The audit period covered job order contracting activity that occurred from October 1, 2008, to September 30, 2009. Source documentation was obtained from the Purchasing Department and departments using the Job Order Contracting program. Original records as well as copies were used as evidence and verified through physical examination.

STATEMENT OF METHODOLOGY

Judgmental sampling was used to improve the overall efficiency of the audit. To achieve the audit's objectives, reliance was placed on computer-processed data contained in the City's financial system and PROGEN, the Job Order Contracting application. The City's financial system was previously determined to be reliable and no additional work was necessary. We assessed the reliability of the data contained in the PROGEN application and conducted sufficient tests of the data contained in it. Based on these assessments and tests, we concluded the data was sufficiently reliable to be used in meeting the audit's objectives.

STATEMENT OF AUDITING STANDARDS

We conducted this 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 CONCLUSIONS

Based upon the test work performed and the audit findings noted below, we conclude that:

1. JOC projects were typically unique, one-time projects that had a time constraint to complete. As a result, there were an insufficient number of comparable projects to objectively support a conclusion as to whether the JOC Program resulted in overall lower or higher costs. City Project Managers believed that JOC construction costs were higher; however, this was mitigated by savings of staff time and improved response time provided by the JOC Program. Assets, resulting from JOC projects, were capitalized in a timely manner.
2. JOC construction contractors complied with the costing requirements for non-prepriced items; however, a number of projects had a high percentage of non-prepriced items to total project costs, which diminished the appearance of cost effectiveness.
3. All of the City's JOC Project Managers believed that Job Order Contracting was a useful procurement method for small and unique construction projects or when projects were under significant time constraints to complete.
4. Task pricing in the Construction Task Catalog reflected current market conditions.

While the findings discussed below may not, individually or in the aggregate, significantly impair the operations of the Purchasing Department and the JOC Program, they do present risks that can be more effectively controlled. Before we completed our audit, Purchasing personnel implemented some of the Internal Audit Department's recommendations.

PRICE PROPOSAL REVIEWS

AUDIT ISSUE

Contractor price proposals were not always adequately reviewed prior to acceptance.

OBSERVATIONS

A sample of contractor price proposals was reviewed with their respective Project Manager to determine whether the proposals were adequately reviewed prior to acceptance. As a result, it became evident that varying methods were used to evaluate the price proposals. Most indicated that tasks and quantities were reviewed for reasonableness given the project; others looked at the bottom line, and or discussed the project with knowledgeable personnel to ensure the total cost was reasonable. No one indicated that the contractor's adjustment factor was reviewed for accuracy. Nearly half of the Project Managers interviewed could not provide support for the pricing of non-prepriced items.

By reviewing price proposal details with the Project Managers, we noted that a contractor used an incorrect adjustment factor when extending task costs (one project, three task line items). This resulted in an overcharge of \$15,561.40. As a result, we requested the JOC Consultant to create a report of non-prepriced items that detailed the adjustment factors used to extend task costs. The report was used to identify two more tasks where the wrong factor was used. These two errors resulted in overcharges of \$1,027.31. On another project, the quantities of a few tasks did not agree to the "take-off" or supporting calculation of the task line item (overcharges minimal). On one other project, two tasks used daily rates when, based on the quantities entered for other tasks, weekly rates should have been used (overcharges minimal). The City's JOC Coordinator subsequently requested credits/reimbursements for the identified overcharges.

CRITERIA

The "Purchasing Requirements for City Project Managers" requires a review of the contractor price proposal prior to acceptance. While this document is not part of the City's Purchasing Manual, it does describe the process and document the flow of the JOC Program. It was developed for reference by the Project Managers.

RISK DESCRIPTION

Errors in price proposals could go undetected without proper detailed reviews, which could result in overcharges to the City.

RECOMMENDATION 1

Project Managers should ensure that the tasks and quantities used in price proposals are appropriate and reasonable, correct adjustment factors are used when extending task costs and supporting calculations ("take-offs") agree to the quantities entered. During the audit, the JOC Coordinator implemented new procedures to ensure non-prepriced items are adequately supported.

To help ensure compliance with price proposal reviews, the Purchasing Department should expand its "Purchasing Requirements for City Project Managers" to include procedures on how to adequately review a JOC price proposal. These procedures should be periodically reinforced at the monthly JOC management meetings.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding in its entirety. City Project Managers all received training on reviewing Price Proposals during program inception in 2007. Refresher training will be conducted.

Action Plan:

- 1a) The JOC Coordinator will create an addition to the "Purchasing Requirement for City Project Managers" detailing how to adequately review Price Proposals.
- 1b) The JOC Coordinator and The Gordian Group will conduct a mandatory Price Proposal Review class for all active Project Managers. Project Managers will have to complete this class before they will be authorized to approve Price Proposals.
- 1c) Periodically, the importance of Price Proposal review will be mentioned at JOC Management Meetings and highlighted in the monthly JOC Update email.

Target Date for Completion:

- 1a) September 30, 2010
- 1b) September 30, 2010
- 1c) On-going

RECURRING CONSTRUCTION PROJECTS

AUDIT ISSUE

While JOC has advantages over traditional procurement methods (i.e. reduced costs of preparation and bidding, potentially improved quality of work because there are no assurances of future work, and quicker construction time lines), it may be advantageous to use cost plus or unit-price contracts, or develop specialized JOC contracts to attract additional bidders for recurring construction projects.

OBSERVATIONS

A recurring JOC construction project (sidewalk program) realized significant savings when a unit-price contract was competitively bid. The savings were verified by comparing cancelled JOC work orders to the same work performed under the unit-price contract. Another recurring JOC project (water meter installation and restorations) uses JOC only because of enhanced customer service. A cost analysis, prepared by the department, showed that average JOC project costs were higher. The department has a furnish and install agreement in place; however, the contractor awarded the contract would have to stop work on other City projects, which would delay their completion. A third JOC recurring project (LED traffic light change outs) was identified where a unit-price agreement was in place; however, the specific tasks related to the work were not part of the agreement. These tasks will be added to the contract specifications when it is rebid.

CRITERIA

Based on the experience of the City's sidewalk program and the water meter installation analysis, it appears recurring construction projects are better suited to using more traditional procurement methods or the development of a specialized JOC contract to attract additional bidders.

RISK DESCRIPTION

Because recurring construction projects are not unique and typically do not involve any time constraints, the use of competitive bidding or development of a specialized JOC contract to attract additional bidders would help ensure that the best price is obtained by the City.

RECOMMENDATION 2

Purchasing policies and procedures should be strengthened to include specific criteria to help ensure the most cost effective procurement method is utilized. When applicable, criteria, such as quick response times, should be included in the contract requirements.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding. Purchasing will incorporate an analysis of recurring projects when they do not meet one of the following known criteria for utilizing JOC:

- Time constraints
- Small total volume
- Interim solution while contract is bid

In addition, the recent bid has shown a significant drop in pricing as indicated by a 24% reduction when comparing 2007 to 2010 JOC factors. Therefore, purchasing will also conduct a new analysis for current recurring projects to ensure cost effectiveness.

Action Plan:

2a) Purchasing will conduct an analysis if JOC is being utilized as the primary method for recurring projects and does not fall within one of the known criteria. The analysis and corresponding decision to utilize JOC will be conducted by the using department and purchasing. The analysis may consist of any of the following:

- Market Research
- Request for Information
- Quotation for a single job within the project
- Formal Competitive Bid
- Review of existing/past contracts

2b) Revise the JOC Policy to include a review process for recurring projects.

Target Date for Completion:

2a) December 31, 2010 for current recurring project and within 6 months as new recurring projects are identified within JOC

2b) December 31, 2010

USE OF NON-PREPRICED ITEMS

AUDIT ISSUE

Work performed on JOC projects that were not based on established unit prices is not consistent with the JOC methodology and diminishes its cost effectiveness.

OBSERVATIONS

JOC permits the issuance of job orders without competition because the tasks ordered were competed as part of the original award. Non-prepriced items are tasks required by the scope of work, but are not included in the Construction Task Catalog. Contractors are required to separately identify non-prepriced items, provide support for pricing, and obtain approval for inclusion in their project proposals. Because non-prepriced items have not been competitively bid, their use should be kept to a minimum to ensure the cost effectiveness of the JOC program.

Of the 298 job orders recorded in PROGEN (the JOC application), 47 included one or more non-prepriced items. Ten of those were issued due to reductions in the scope of work. The following table presents the ratios of non-prepriced items (NPPI) to total project costs for the remaining 37 job orders:

<u>Percentage of NPPI</u>	<u>Number of Projects</u>
Less than 25%	5 projects
From 25% to 50%	5 projects
From 50% to 75%	5 projects
From 75% to 99%	11 projects
100% NPPI	11 projects

CRITERIA

Purchasing policies and procedures were developed (specifically Section 2.2 of the Purchasing Manual) to ensure the City obtains "the lowest and best cost consistent with the quality needed to meet the timely requirements of the City." Limits on the percentage of non-prepriced items to total project costs have not been established.

RISK DESCRIPTION

Limiting competition will result in higher construction costs incurred by the City.

RECOMMENDATION 3

Limitation on the percentage of non-prepriced items to total project costs should be established with a provision that allows for exceptions with the documented approval of the Director of Purchasing. Unless exempted, projects exceeding the limit should be competitively bid using an alternate procurement method.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding.

To strengthen and enhance the NPPI requirements in the contract, revised NPPI Procedures were implemented effective October 1, 2009 (FY10). These procedures now include review & approval of all NPPIs by the JOC Coordinator prior to issuance of a purchase order. Part of this review includes ensuring that the items were obtained competitively by the JOC Contractors, including community outreach through eGordian.

Action Plan:

- 3a) Revise the JOC Policy to include limitations on the percentage of NPPIs and the exception process.

- 3b) Modification of the NPPI Procedures established in FY10 to incorporate the Policy changes.

Target Date for Completion:

- 3a) December 30, 2010
- 3b) December 30, 2010

CONTRACT ADMINISTRATION DEPARTMENT

AUDIT ISSUE

While most of the JOC Project Managers appeared more than capable to administer their respective projects, others do not appear to have the requisite background in the various construction trades to adequately monitor construction. The language used in the Purchasing Procedures Manual, Section 14.0, Job Order Contracting, is unclear with respect to when the Contract Administration Department's involvement is required.

OBSERVATIONS

The Mayor established the Contract Administration Department (Executive Order 2005-1) to enhance "the efficiency and effectiveness of City government" and "provide improved public works, utilities, roadway and infrastructure services to the public." The new department consolidated the functions that resided in other City departments "relating to the establishment and execution of design and construction of public improvements and related services for such contracts." "Such contracts" include "design, construction, engineering studies, engineering/architectural and related services type contracts as well as related agreements as assigned by the Administration."

Given the above, JOC Project Managers generally prefer to administer their own projects to ensure timely completion (one of the advantages of the JOC program). While all JOC projects reviewed appeared adequately managed and successfully completed, a few projects, which involved more than a single construction trade and required both permitting and inspections, may have benefited from the oversight of a more experienced Project Manager.

CRITERIA

The Purchasing Procedures Manual, Section 14.0, Job Order Contracting, requires project coordination through the Contract Administration Department if "the project requires permits, professional seals on documents and construction testing and inspection." This statement appears all inclusive, indicating that the Contract Administration Department should coordinate the project only when all requirements are met. The policy continues that "if the project does not involve any of these requirements, the project will be coordinated directly with the Purchasing Department." This statement implies that if any of the four requirements are met the project should be coordinated by Contract Administration.

RISK DESCRIPTION

Construction deficiencies may go undetected without adequate oversight by someone experienced in the applicable construction trades.

RECOMMENDATION 4

Purchasing Procedures Manual, Section 14.0, Job Order Contracting, should be revised to ensure Contract Administration Department's involvement when permits, professional seals on documents, construction testing, or inspections are required.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding in its entirety. In addition to contradictions between the JOC Policy and JOC Procedure, neither clearly defines the terminology nor clearly identifies when and how the Contract Administration Department (CAD) should be involved in a JOC project. As currently written, the Policy would require that CAD be involved in every JOC project, since every JOC project requires some form of inspection. Additionally, permits can be of varying complexity and type. Some permits, such as right-of-way, may not require CAD's involvement. Currently the policy has been interpreted that CAD must be involved if stamped and sealed drawings are required.

Department Project Managers initiate JOC projects. Based on the scope of the project, it is the Project Manager's responsibility to review the project and determine if CAD should be involved. Sometimes Project Managers choose not engage CAD due to a significant time delay in starting construction and increased department costs due to the 12.8% CAD fee.

Action Plan:

- 4a) Purchasing will work with Contract Administration to revise the relevant portions of the JOC Policy and Procedures. As part of this revision, recommend that Contract Administration modify their department fee structure for JOC projects.

Target Date for Completion:

- 4a) December 30, 2010.

JOC PROJECT MANAGERS SURVEY

AUDIT ISSUE

All of the City's JOC Project Managers we surveyed believed that Job Order Contracting was a useful procurement method for small and unique construction projects or when projects were under significant time constraints to complete.

OBSERVATIONS

Below are the Project Manager's responses to our JOC Questionnaire:

Question 1a: As you see it, what are the advantages of using the JOC Program?

Summary: The most common responses for the advantages of the JOC program were: saved time by avoiding the formal bid process and the involvement of Contract Administration, ability to handle small or unexpected projects fast, and that JOC contractors produced a quality work product.

Question 1b: As you see it, what are the disadvantages of using the JOC Program?

Summary: The most common response on the disadvantages of the JOC Program was the higher costs of construction. Project Managers also disliked the program software.

Question 2: Do you have any suggestions to improve the JOC Program?

Summary: The majority offered no suggestions to improve the JOC program.

Question 3: What steps do you take when you review JOC price proposals? How do you ensure non pre-priced items are priced appropriately? Are these reviewing steps documented?

Summary: Most Project Managers indicated that they review line item tasks and quantities for applicability and reasonableness. Non pre-priced item costs are researched or supported by contractor quotes. Most do not document their review.

Question 4: Do you believe that by using the JOC Program you have saved costs (including labor)? Are you able to provide any support for the cost savings?

Summary: The majority of Project Managers did not believe the JOC program saved costs. Those that did cited their time savings.

Question 5: How do you track the progress of JOC Program projects? Do you use project logs; maintain project files that contain progress information, or some other method?

Summary: The progress of JOC Program projects was tracked using a variety of methods.

Question 6: Do you have any comparable or similar projects that have gone through the traditional bidding process that you are now using or have used the JOC Program to complete?

Summary: Most did not have comparable projects that went through the traditional bidding process citing the projects let through the JOC program were typically unique, small projects. Those that did have comparable projects, indicated the projects were recurring, or projects were started in one process, but completed using another.

Question 7: Do you anticipate increasing or decreasing your use of the JOC program in FY2010? Why?

Summary: A third of the Project Managers anticipated their use of the JOC program would be about the same frequency in FY2010. Less than a third estimated their use would decrease. Less than a third indicated they could not predict their future use. Only two project managers felt their use would increase.

CRITERIA

The narrative above summarizes JOC Project Manager's opinions of the Job Order Contracting procurement method.

RISK DESCRIPTION

Using an inappropriate procurement method may not provide the lowest cost to the City.

RECOMMENDATION 5

The JOC Program should be utilized only for those unique projects where the benefits of the JOC Program outweigh the potential for lower costs through traditional procurement methods. To ensure the lowest cost to the City, each project should be evaluated against specific criteria to determine the proper procurement method to be used.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding in its entirety. The purpose of the JOC program is to reduce time and increase quality, while keeping costs as low as possible. JOC provides the best value for the City when efficiency is the priority for small, unique, repair, renovation, and construction projects.

Action Plan:

5a) Purchasing will continue to advise departments on selecting the best method of procurement.

Target Date for Completion:

5a) On-going

COMPARISON OF PROCUREMENT METHODS

AUDIT ISSUE

While the JOC procurement method provides a significant reduction in administrative labor and overall project time when compared to the City's formal bid process, these criteria alone should not determine the procurement method used.

OBSERVATIONS

Procurement tasks of the JOC and formal bid processes were identified with the assistance of the Purchasing Department, Contract Administration, and Facility Management. Because the formal bid process is used to award projects that may not be suitable for the JOC program, each entity was asked to prepare estimates of the direct labor hours and duration/wait time in days for an average sized project.

Based on the estimates obtained, JOC administrative labor is approximately 12 to 35 hours per project compared to 100 hours or more for formally bid projects. Total project duration/wait time for JOC is approximately 33 days versus 100 days or more for formally bid projects.

CRITERIA

Procurement tasks were identified with the assistance of the responding departments, which provided detailed administrative labor and duration/wait time estimates.

RISK DESCRIPTION

Selecting an inappropriate procurement method at project commencement could subject the City to avoidable construction costs.

RECOMMENDATION 6

The decision as to whether the reduced administrative labor and overall project time offered by Job Order Contracting would result in overall cost savings to the City should be determined and documented prior to the start of JOC construction projects.

MANAGEMENT'S RESPONSE

Purchasing agrees with this finding in its entirety. Departments often choose JOC because the reduction in staff time and overall project time is more important than achieving the lowest price. The overall cost to the City includes these soft costs and the price paid to the contractor. It is important that all benefits and costs are reviewed when selecting the best method of procurement.

Action Plan:

- 6a) Purchasing will continue to advise departments on selecting the best method of procurement.

Target Date for Completion:

- 6a) On-going

CITY COUNCIL REQUEST

Tampa City Council passed the following motion during its May 21, 2009, regular meeting:

Motion: (Miranda-Dingfelder) That the Internal Auditor be requested to conduct an audit on a random number of departments for a review and comparison of the cost of outsourcing through the Job Order Contract versus performing the same work in-house; further, that the Internal Auditor report back to the Mayor and City Council on the results of the audit. Motion carried.

The Job Order Contracting audit was performed as part of our 2010 Audit Agenda and City Council's request was included in the audit's scope. As noted in the report above, the City uses Job Order Contracting to perform small, unique projects or when projects are under significant time constraints to complete. Below is a comparison of JOC and City of Tampa trade labor rates:

<u>Trade</u>	<u>JOC Labor Rate</u>	<u>City Labor Rate</u>		
		<u>Minimum</u>	<u>Midpoint</u>	<u>Maximum</u>
Laborer	17.84	24.22	29.32	34.41
Electrician	28.54	33.13	40.12	47.12
Plumber	27.48	27.20	32.95	38.70
Carpenter	25.94	24.22	29.32	34.41
Painter	20.74	24.22	29.32	34.41
Watchman/Guard	14.93	17.66	21.39	25.12

The JOC labor rate includes the contractor's markup factor. The City's labor rate was adjusted for actual hours worked and includes fringe benefits.

Based on the types of JOC projects constructed during the audit period, the analysis above, additional startup costs (vehicles, tools, equipment, and supplies), and administrative overhead, it would not be cost effective for the City to perform JOC type construction projects in-house.