

Cover Memorandum & Summary

To: Honorable Alex Penelas, Mayor

Honorable Chairperson, Barbara Carey-Shuler, Ed.D
and Members, Board of County Commissioners

From: Christopher Mazzella
Inspector General

Date: November 13, 2003

Re: OIG Final Audit Report on the Performing Arts Center Construction's Manager Quality Control Program

As part of the Office of Inspector General's (OIG) on-going oversight of the construction of the Performing Arts Center of Greater Miami (PAC), please find attached the OIG's final audit report on the Construction Manager's, Performing Arts Center Builders' (PACB), Quality Control Program (QC Program). The Program requires PACB, under its contract with Miami-Dade County (the County), to provide construction management services during the building of the Performing Arts Center of Greater Miami (PAC).

An executive summary of audit findings and an analysis of several other relevant issues raised by the respondents in their response to the draft report follow.

The OIG thanks and appreciates the courtesies, cooperation and patience extended by PACB, its subcontractors, The Architects Hall Designers, Inc., Cesar Pelli & Associates and County staff to the OIG in the course of this audit.

cc: Mr. George Burgess, County Manager
Mr. Parker Thompson, Chair and Members of the Performing Arts Center Trust Board
c/o Mr. Michael Hardy, President and CEO, Performing Arts Center Trust
Mr. Robert A. Ginsburg, County Attorney
Mr. Bill Johnson, Assistant County Manager
Ms. Gail Thompson, Project Director, Performing Arts Center Management Office
Ms. Cathy Jackson, Director, Audit and Management Services
Mr. James A. Gray, Project Principal, Performing Arts Center Builders
Mr. Luis Simon, Project Executive, Performing Arts Center Builders
Mr. Neil Hall, President/CEO, The Architects Hall Designers, Inc.
Mr. Randolph J. Volence, Cesar Pelli & Associates, Inc.
Clerk of the Board (copy filed)

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FINAL AUDIT REPORT CONSTRUCTION MANAGER'S QUALITY CONTROL PROGRAM
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On September 25, 2001, the Miami-Dade Board of County Commissioners passed Resolution No. 1073-01, approving a \$254,650,000 Amended At-Risk Construction Management Guaranteed Maximum Price Contract (the Contract) between PACB (a joint venture comprised of Odebrecht Construction, Inc., the Haskell Company and Ellis-Don Construction, Inc.) and the County to construct the Performing Arts Center of Greater Miami (the PAC). The County's representative, the Performing Arts Center Management Office (PACMO), issued the Notice to Proceed for this project on October 15, 2001.

The contract between PACB and the County recognizes that the construction manager is to provide all related services to ensure that the PAC's project objective of quality is met. The contract's project manual sets forth the construction manager's (PACB's) requirements of a Quality Control Program (QC Program) and the specifications, methods and procedures to ensure that all items are either inspected or tested when required by the contract's technical specifications. In the furtherance of meeting its contractual obligations, PACB enlisted the services of The Architects Hall Designers, Inc. to be its designated quality control organization (QCORG) whose function is to execute the construction manager's QC Program.

The OIG initiated an audit of PACB's QC Program. The main objectives were to determine if the QC Program's testing and inspection activities were documented in such a manner to be a reliable indicator of compliance with the Program's specifications. The OIG also sought to evaluate PACB and its subcontractors' responses to quality control issues in the performance of their daily work, in particular, their efforts to document found defects, causes for rejection, and any remedial or corrective actions taken.

In the audit report, the OIG summarized its findings stating that:

In general, PACB has unsatisfactory QC Program documentation and record keeping. In part, this is due to PACB having not provided adequate financial and logistical support to The Architects Hall Designers, Inc., which is the designated Construction Manager Quality Control Organization (QCORG). This condition adversely impacts the QCORG's ability to implement effective QC Program record keeping, inspections and subcontractor oversight. PACB cannot document that its QCORG and subcontractors have complied with approved QC Program requirements, such as conducting and reporting inspections of work performed. PACB's efforts, to date, have resulted in an undermanned quality control organization and one that relies on individuals that may not be qualified to perform their QC Program responsibilities.

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On September 4, 2003, the OIG issued a Draft Audit Report to PACMO and PACB representatives along with a request that they provide written responses to the report.

The audit report includes sixteen (16) findings and nineteen (19) recommendations. A table specific to the enumerated audit findings is found in the report's Table of Contents.

PACB, in its written response to the OIG's Draft Audit Report, agreed with seven (7) of the findings. Of the remaining nine (9) findings, PACB either disagreed that there was a finding or did not clearly state its position. In some cases, PACB responded to the finding heading but then did not address the recommendation(s). In several other instances, PACB refers to its *Revised Quality Control Program*, which is stated to address the identified concern. PACB's full response, including an executive summary of its revised QC Program, is appended to the Final Audit Report (Appendix A). In addition, the OIG has inserted PACB's exact comments to the report's specific findings/recommendations immediately after the corresponding report sections and, as deemed appropriate, OIG comments follow those comments.

PACMO's initial response comprised of a cover memo and a substantial amount of attachments documenting its concern about the effectiveness of PACB's QC Program and included comments to the Draft Audit Report prepared by the Owner's architect, Cesar Pelli & Associates (CP&A). CP&A's response also included a cover memo and a number of attachments. PACMO did not provide a response specific to each of the audit's findings. PACMO's response is appended to this Final Audit Report (Appendix B).

On October 10, 2003, PACMO forwarded to the OIG a supplement to its earlier response. This supplement was a CP&A prepared analysis of PACB's *Revised Quality Control Program Overview*, which PACB initially submitted to the County on September 29, 2003.¹ PACMO's supplemental response is appended to the Final Audit Report (Appendix C).

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¹ PACB distributed this *Revised Quality Control Program Overview* after the OIG issued its Draft Audit Report. On October 10, 2003, PACB distributed a *Revised Quality Control Program Manual* to PACMO and CP&A. PACB states that the policies and procedures described in the revised manual address the issues raised by the OIG. PACMO and CP&A are evaluating the manual's contents and will meet with PACB in the near future to discuss the results of their respective evaluations.

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PACMO / CP&A Responses and OIG Comments

PACMO statements, in its initial response, indicate its agreement with the OIG's assessment about the status of PACB's QC Program. PACMO then goes further in critiquing PACB's QC Program by stating, "the failures in the field were indicative of an inadequate program and/or poor implementation of the program" and not just the result of poor record keeping and reporting practices, which is one of the central themes underlying the OIG's findings.

While the OIG Audit found that there is, at present, an insufficient number of qualified QC personnel (Audit Finding No. 4) and recommended that PACB augment the current QCORG staffing (Audit Recommendation No. 5), PACMO suggests that PACB should increase the number of its construction site supervisory staff. According to PACMO, "Understaffing supervision of the work has a direct impact on the quality of the work."

CP&A, in its report comments states, "We do not take issue with the conclusions of the Report, as the findings are well documented and consistent with our experience." CP&A's response contains the following cogent response that echoes and then expands on a major point made by the OIG auditors concerning PACB's QC Program implementation.²

"This abdication of primary responsibility by PACB [to conduct and document required QC inspections] has proven, in CP&A's opinion, to be wholly unsatisfactory. Most subcontractors have limited QC administrative experience and the result is an inconsistent array of reports or information contained within the reports. In addition, without proper oversight and monitoring by PACB, the concept of self-monitoring and self-correcting is subject to the subcontractor's interpretation of acceptable work. These interpretations of acceptable work vary widely between subcontractors, and inevitably lead to a measure of acceptability by all of the lowest common denominator."

² This sentiment is found expressed in OIG audit findings and corresponding recommendations numbers: 1, 2, 3 and 4 (referencing organization and administrative issues) and numbers 9, 10, 11 and 12 (referencing poor inspection record keeping and reporting).

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PACMO's supplemental response, which, as previously stated, is CP&A's analysis of PACB's *Revised Quality Management Plan Overview*³ shows CP&A's continued concern about PACB's assessment of its QC-related efforts and objectives as reported in its *Overview*. CP&A's comments again center on the two issues mentioned earlier: (1) PACB's field staff size and (2) PACB's responsibility to implement and maintain a satisfactory (to the Owner) QC Program. Both are highlighted below.

“PACB's stated objectives . . . fail to reach the heart of the problem with the QC Program; that is, monitoring of the work put in place . . . by an adequate number of highly qualified and skilled field personnel . . . ”

PACB “continues to avoid ultimate responsibility for Quality Control issues pertaining to deficient or non-compliant work placed in the field . . . PACB must not abdicate their responsibilities to create and maintain an effective [QC] program . . . PACB's organization charts and commentary related to the proposed 'distribution of overall project quality responsibilities' . . . cannot diffuse PACB's contractual obligations to establish, provide, and maintain an effective Quality Control Program.”

PACB Response and OIG Comments

PACB begins by asserting that the audit “did not address the actual quality of the work.” This is a true statement. This audit did not test for the actual quality of work. Auditors did not inspect poured concrete, test the structure's acoustics or evaluate the quality of the work itself. PACB goes on to state that “the Response and recent inspections of the Project demonstrate the level of quality of the work is high and the commitment of PACB and its subcontractor's [sic] to the delivery of quality work is beyond question.” PACB continues with this theme throughout its response provided to the OIG.

³ Attachments to the Final Audit Report include two (2) versions of this document. The version referenced in, and attached to, CP&A's analysis, dated October 7, 2003, is the September 29th version tendered to the County and entitled *Overview*. The version directly received by the OIG from PACB as part of its response to the draft audit and entitled *Executive Summary*, dated October 10, 2003, reflects a later version prepared after PACB received some preliminary comments from PACMO/CP&A.

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According to PACB:

“The quality of the work is very high and will not be compromised . . . Over 99.8% of the work in place meets or exceeds the quality expectations of the project. This minor amount of 'out of tolerance' work has not and never did compromise structural integrity or the acoustical performance of the project. In the end, the project will be 100 percent in accordance with the quality expectations.”

Despite PACB's assertion, the OIG does question PACB and its subcontractors' commitment to quality control. PACB's attempt to minimize the importance of inspection documentation in its response to the audit and in context of the actual amount of out-of-tolerance work to date signals its willingness to accept less than the high quality work product demanded by this project. To illustrate this point is a very telling statement made by PACB in its INTRODUCTION AND SUMMARY section of its response, which we believe indicates, more graphically than anything in the OIG's report, PACB's approach to quality control.

“Many of these [deficiency notices⁴] were initiated by PACB or its subcontractors and all are being corrected in accordance with procedures approved by the architect . . .”

Why then are PACB and its subcontractors noticing major construction deficiencies after the fact? What is the effectiveness of a QC Program if it is not catching these quality related issues while the work is in progress? The A/E does not issue deficiency notices for minor “out of tolerance” work. The fact that these significant deficient conditions may be fixed does not rationalize their existence or minimize their impact on the construction process. PACB should clearly explain how it allowed these deficiencies to occur in the first place, in the context of its QC Program.

Another statement by PACB attempts to reassure this report's readers that “[t]he procedure issues raised by the OIG have neither delayed construction nor added cost to the County.” However, this is a meaningless statement and is unresponsive to the audit's findings, as the OIG never attempted to connect these issues. The OIG does not believe that the Owner ever anticipated having to choose between a well-run, well-documented QC Program at the

⁴ PACB also mentions the eleven (11) deficiency notices issued by the A/E through May 2003 as reported in the audit. The OIG notes that since then, however, the A/E has issued an additional thirty (30) deficiency notices, including some related to issues surrounding the acoustical properties and others regarding the structural integrity of the buildings

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expense of cost or time budget increases. When this project will be completed, and at what cost, has been and will continue to be subject to much discussion. There should be no discussion, however, as to this project's quality requirements and the need for PACB to be able to demonstrate and document that its construction processes are ensuring quality work at every step from notice to proceed through substantial completion.

PACB, in its cover memo, makes two statements on what it regards as the major impediment on this project.

“We look forward to the opportunity to address what we believe to be the biggest threat to the success of this important project—the inability to comply with contractual time frames to resolve the serious defects in the design documents for the project.

Deficiencies in the design have been and remain the biggest threat to the timing and cost of the completion of the Performing Arts Center. Significant improvements in the Quality of the Design Documents is [sic] critical. Time and again the design documents provided have failed to meet the quality standard that this project deserves.”

To the extent that the OIG audit was, in PACB's words, about the QC “process . . . the paperwork and administration side of things,” the OIG questions the relevance of PACB's many references to “design document deficiencies” here and throughout its response. Is PACB attempting to associate its execution of a poor quality control function to alleged poor quality contract design documents? If so, the OIG disagrees with this association.

The quality of the contract design documents issue is outside the scope of the current audit and that discussion is not germane to resolving PACB's ineffectual implementation of its QC Program. The OIG believes that PACB's response to this audit is an inappropriate forum for it to air its complaints on a non-related issue. Quality control record keeping and documentation issues, we believe, are independent of contract design document issues.

Throughout its response, PACB refers to its Revised QCORG Program. In fact, many of the specific responses to audit recommendations continually refer to the Revised Program as remedying the reported exceptions. Incorporated as part of its response to the OIG, PACB includes an eight page *Executive Summary* of its Revised QC Program. This document is similar to PACB's other document entitled *Revised Quality Management Plan Overview*, which was the subject of review in CP&A's November 7, 2003 memorandum (Appendix C, PACMO's supplemental response). (See also footnote 3 herein.)

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The OIG notes that, in the *Overview* version first presented to the County (i.e., the version reviewed and attached to PACMO's supplemental response), PACB has this to say about its own QC Program:

ASSESSMENT AND OBJECTIVES

“2. The plan currently in place is generally but not completely compliant with the Section 01440. Given the current realities of the project, the plan does not provide for adequate staffing, does not set forth an effective communication plan and does not adequately address some of the special requirements of this project.

3. The larger issue is one of execution. Documentation of quality activities is incomplete and sometimes unclear. Subcontractor compliance and participation has been uneven. Reporting of field inspections are too infrequent. Specific building deficiencies are being corrected, however, underlying causes of those deficiencies have not been addressed consistently.”

Paragraphs two (2) and three (3) are noticeably absent from the Assessment and Objective section of the executive summary version presented to the OIG. Apparently, PACB thought much the same of its QC Program as did the OIG auditors, as these two statements show PACB's concurrence with the audit's *Summary Results* statement. However, by October 10, 2003, (date of PACB's response to the OIG) PACB had apparently changed its mind about these statements and removed the paragraphs from this section of the Executive Summary version.

* * * * *

The Owner -- Miami-Dade County -- has every right to expect that PACB will provide a comprehensive, well-documented record of its QC Program activities, which is an integral element of its assurances that a performing arts center is being built to the contract's high quality standards. PACB is being paid over \$37.5 million (Construction Manger's Fee and General Conditions) to act as the construction manger building the PAC. These substantial fees should be sufficient to fund a quality QC Program, which is designed to ensure one of the project's main objectives -- that the public be delivered a quality performing arts center.