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Before the Chairman, Subcommittee on Economic
Development, Public Buildings, and Emergency
Management, Committee on Transportation and
Infrastructure, House of Representatives

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KENNEDY CENTER

**Improvements Needed to
Strengthen the Construction
Process**

Statement of Mark L. Goldstein, Acting Director
Physical Infrastructure Issues



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Highlights

Highlights of [GAO-03-1141T](#), a testimony before the Subcommittee on Economic Development, Public Buildings, and Emergency Management, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

In the mid-1990s, John F. Kennedy Center for the Performing Arts (Kennedy Center) officials recognized a need for additional parking and better site access. As a precursor to a planned project to construct an 8-acre plaza and two additional buildings at the site, the Kennedy Center is currently in the process of constructing a garage expansion and site improvement project.

Because of congressional concerns over project delays and costs as well as challenges the Kennedy Center faces as it pursues this major construction effort, GAO was requested to examine (1) the garage expansion and site improvement project's current costs, time frames, and scope compared to estimates provided to congressional stakeholders in 1997 and 1998 and (2) challenges the Kennedy Center faces in managing large construction projects. GAO issued its findings in a report entitled *Kennedy Center: Improvements Needed to Strengthen the Management and Oversight of the Construction Process*, GAO-03-823 (Sept. 5, 2003). This testimony is based on that report.

www.gao.gov/cgi-bin/getrpt?GAO-03-1141T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Mark L. Goldstein, (202) 512-2834, or goldsteinm@gao.gov.

KENNEDY CENTER

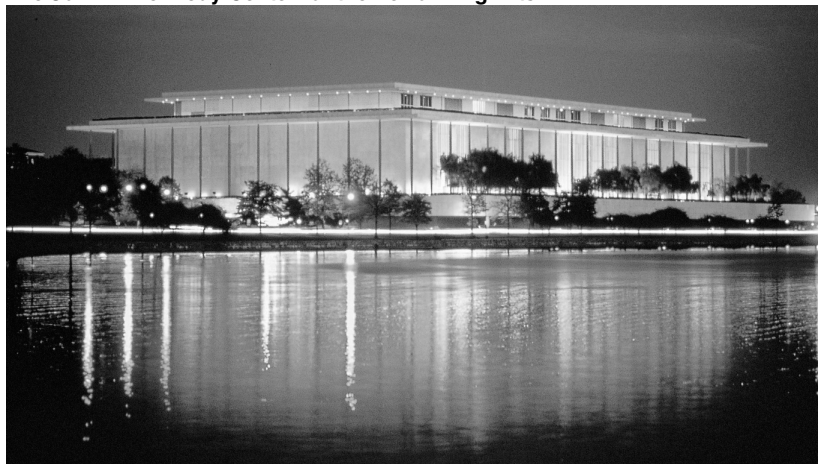
Improvements Needed to Strengthen the Construction Process

What GAO Found

As of July 2003, Kennedy Center officials estimated that the garage expansion and site improvement project would cost \$88 million, the garage expansion would be completed in December 2003, the site improvements would be completed in summer 2004, and the project would include 525 parking spaces and various traffic flow improvements. These estimates vary substantially from estimates that Kennedy Center officials provided to congressional stakeholders in 1997 and 1998. At that time, Kennedy Center officials estimated that the project would cost \$28 million, would be completed by August 2000, and would include between 900 and 1,000 parking spaces. According to Kennedy Center officials, the initial estimates were preliminary in nature and were based on some unrealistic assumptions. They acknowledged that they should have done a better job of informing Congress of the preliminary nature of the estimates and the subsequent events in the project's planning and bidding phases that affected the costs, time frames, and scope. Kennedy Center officials said they now hold monthly meetings with Congress about the status of ongoing projects.

The Kennedy Center faces certain challenges in managing large construction projects. Specifically, the Kennedy Center lacks (1) adequate policies and procedures to guide the planning and management of the construction process, (2) some timely construction data on schedules and costs for effectively overseeing construction projects and measuring results, and (3) key human capital resources and expertise that would be useful in managing the construction process. In its September 2003 report, GAO recommended that the Kennedy Center develop comprehensive project management policies and procedures, ensure development and use of timely data, and ensure that the needs for human capital expertise are met. Kennedy Center officials are now working to address these challenges.

The John F. Kennedy Center for the Performing Arts



Source: The John F. Kennedy Center for the Performing Arts.

Mr. Chairman, Ranking Minority Member, and Members of the Subcommittee:

We welcome the opportunity to testify before you today on our work related to selected aspects of the Kennedy Center's construction program. Specifically, my testimony will discuss the (1) differences between the current costs, time frames, and scope estimates of the garage expansion and site improvements project and the 1997 and 1998 estimates provided to congressional stakeholders; and (2) challenges that the Kennedy Center faces in managing large construction projects. As you know, on September 5, 2003, we issued a report to you and the Ranking Minority Member on these issues.¹ Therefore, my statement today will be short and primarily focus on the report's major findings and recommendations.

Let me begin by giving you a brief overview of the Kennedy Center's construction program and the garage expansion and site improvements project.

Overview

The John F. Kennedy Center for the Performing Arts, which was established in 1964 as both a national cultural arts center and a memorial to the 35th President, opened in September 1971 as an independently administered bureau of the Smithsonian Institution. Shortly thereafter, in 1972, the Secretary of the Interior, through the National Park Service, assumed responsibility for maintenance and all other services related to the administration of the Kennedy Center facility. In 1994, legislation was enacted that transferred responsibility for operations and maintenance of the facility to the Kennedy Center Board of Trustees.² The 1994 legislation also required the Kennedy Center to develop and update annually a comprehensive building needs plan that details the condition of the Kennedy Center facility and planned renovations.

¹U.S. General Accounting Office, *Kennedy Center: Improvements Needed to Strengthen Management and Oversight of the Construction Process*, [GAO-03-823](#) (Washington, D.C.: Sept. 5, 2003).

²The Kennedy Center Board of Trustees is composed of 36 general trustees who must be U.S. citizens and who are appointed by the President of the United States, 13 trustees designated ex-officio representatives of the executive branch and other government branches, and 10 congressional representative trustees. Each appointed trustee serves a term of 6 years.

The Kennedy Center receives annual appropriations to fund operations and maintenance as well as construction. The Kennedy Center also has other sources of funds to finance capital improvements in addition to annual appropriations, such as charitable donations and the ability to borrow funds. The John F. Kennedy Center Parking Improvement Act of 1997 gave the Kennedy Center approval to design and construct the parking garage expansion and site improvements project.³ The garage expansion is being funded through a loan from the District of Columbia, which issued revenue bonds to provide the related funding,⁴ and the site improvements are being funded through annual appropriations. To assist in the construction of the garage expansion, the Kennedy Center has hired a construction management firm. For the site improvements, the Kennedy Center is using construction-contracting services available to federal entities through a Corps of Engineers indefinite-delivery, indefinite-quantity contract. The Corps of Engineers is also providing limited management assistance to the project.

Garage Expansion and Site Improvements Project Estimates

The July 2003 estimates of the garage expansion and site improvements project costs, time frames, and scope vary substantially from estimates that the Kennedy Center provided to Congress in 1997 and 1998. Current estimates show that the garage expansion is estimated to cost \$45 million, include 525 parking spaces, and be completed in December 2003. The site improvements are estimated to cost \$43 million; include various improvements to the sidewalks, roads, and landscaping; and be completed in the summer of 2004. In contrast, in 1997 and 1998, Kennedy Center officials estimated that the garage expansion would cost \$25 million and include 900 to 1,000 parking spaces. The site improvements were estimated to cost \$3 million and include construction of a new front entry driveway. At that time, Kennedy Center officials estimated that the garage expansion and site improvements project would be completed by August 2000.

³20 U.S.C. 76i(b).

⁴On December 15, 1999, the District of Columbia issued \$34 million in District of Columbia revenue bonds and loaned the proceeds to the Kennedy Center for the purpose of constructing the garage expansion. The bonds are secured by parking revenues from the garage expansion. Payments of principal and interest on the bonds are insured by Ambac Assurance Corporation.

According to Kennedy Center officials, the initial garage expansion estimates were preliminary in nature and were based on some unrealistic assumptions related to comparable construction projects, the failure to consider the need for year-round operations, and construction market conditions. In addition, Kennedy Center officials said that the final scope of the site improvements portion of the project increased significantly from the early estimates because they decided to accelerate the scheduling of some planned repairs in hopes of expediting the work and reducing the number of contractors, thus simplifying project coordination efforts. These officials acknowledged that they should have done a better job of informing Congress of the preliminary nature of the estimates and the subsequent events in the planning and bidding phases of the project that affected the costs, time frames, and scope. Kennedy Center officials said they are now holding monthly meetings with congressional stakeholders regarding the status of Kennedy Center projects.

Kennedy Center Faces Challenges in Managing its Construction Program

In addition to problems associated with the planning phases of the projects, we also noted that the Kennedy Center faces a number of challenges in managing large construction projects. The Kennedy Center lacks (1) adequate policies and procedures to guide the planning and management of the construction process, (2) some timely construction data on schedules and costs for effectively overseeing construction projects and measuring results, and (3) key human capital resources and expertise that would be highly beneficial in managing the construction process. Let me elaborate on these three challenges.

- *Policies and procedures*—Although the Kennedy Center had some limited construction-related guidance, such as safety plans developed by the construction management contractor, it does not have formal, written project management policies and procedures to help guide and administer construction projects in various areas such as project organization, quality control and assurance, project execution, and day-to-day contract administration. Such policies and procedures would help ensure overall project oversight of all Kennedy Center construction projects, including the garage expansion and site improvements project.
- *Timely construction data*—The Kennedy Center does not always receive timely construction data on schedules and costs that are necessary for monitoring construction costs and measuring results, such as estimated total project costs. For example, regarding the garage expansion, the Kennedy Center decided to waive submission of key timely written project management reports from the construction manager and rely instead on

weekly meetings. These weekly meetings are no substitute for timely written reports typically used in construction project management—reports that would have provided additional detailed information on schedules and costs that could have been helpful in project oversight.

- *Human capital resources and expertise*—Kennedy Center officials lack key human capital resources and expertise that would be highly beneficial in managing the construction process. For example, the Kennedy Center experienced significant turnover in both in-house staff and contractor personnel during the design stages of the garage expansion and site improvements project, which has contributed to reduced institutional knowledge of the project and has increased the time necessary to finalize design decisions. The President of the Kennedy Center told us he recognized that the Kennedy Center continues to lack adequate staff or expertise to manage its upcoming plaza and buildings project. However, Kennedy Center officials have since noted that they are in the process of filling key positions of director of capital projects and project manager, have engaged an architect and developer firm, and now feel that they do have sufficient staff and expertise.

These construction management challenges are not new to the Kennedy Center. In September 1995, a Kennedy Center consultant reported that there were no clear lines of responsibility within the existing facility management structure, and that job descriptions were not clearly defined.⁵ In addition, the consultant’s report also noted that “An organized system should be developed for managing information concerning the facility operations to be used to monitor performance against established standards.” Regarding human capital, we reported in 1993 that the Kennedy Center lacked a federal contracting officer, architects, engineers, or other professional occupations associated with capital projects.⁶ We concluded that the Kennedy Center did not have sufficient capability to effectively manage large-capital construction projects. Since 1993, the Kennedy Center added a contracting department with 5 full-time positions and an entire project management department consisting of 9 employees—6 full-time Kennedy Center employees, including 4 project managers and 2 support personnel, plus 3 contract employees.

⁵Wiss, Janney, Elstner Associates, Inc., Trammell Crow Company, and Environmental Systems Design, Inc., *Facility Management Assessment, Phase I* (Washington, D.C.: September 1995).

⁶U.S. General Accounting Office, *Kennedy Center: Information on the Capital Improvement Program*, [GAO/GGD-93-46](#) (Washington, D.C.: Feb. 9, 1993).

Although it is difficult to determine the extent to which these challenges have hindered the Kennedy Center's efforts on the garage expansion and site improvements project to date, having adequate policies and procedures, timely construction data, and qualified human capital would help to strengthen the overall construction program and reduce risk. Addressing these challenges will become increasingly important as the Kennedy Center undertakes the larger, more costly, and more complex plaza and buildings project. The critical importance of having quality guidance, data, and human capital was highlighted by the National Research Council's 2000 report on federal organizations that contract out for construction management services to acquire and build facilities, such as the Kennedy Center.⁷ The council found that, among other things, these organizations should have (1) plans, policies, and procedures to define project goals and develop strategies and methods for achieving those goals; (2) detailed data to monitor progress and assess risks; and (3) in-house staff with sufficient management, financial, and technical skills necessary for effective oversight of all phases of the project. Effective policies and procedures would provide a road map for project managers on how best to estimate project costs, administer the contract, and define the roles and responsibilities of project staff. Timely data would allow project managers to effectively oversee project status and measure results to gauge effectiveness. Qualified human capital and expertise would improve efforts to control project costs, time frames, and scope.

We recognize that changes in costs, time frames, and scope are not unusual in construction projects. However, in the case of the Kennedy Center garage expansion and site improvements project, early estimates proved to be especially problematic and were based on unrealistic assumptions. Furthermore, if the Kennedy Center continues to operate without adequate construction policies and procedures, timely schedule and cost data, and qualified human capital, the success of its future plaza and buildings project will be at risk. Although making improvements in these areas is no guarantee of project success, such improvements would strengthen the overall construction program and reduce risk by providing greater effectiveness in managing and overseeing future projects and measuring results.

⁷National Research Council, *Outsourcing Management Functions for the Acquisition of Federal Facilities* (Washington, D.C.: National Academy Press, 2000). The council is the working arm of the National Academy of Sciences and the National Academy of Engineering, and it carries out studies to advise the federal government.

Given this, we recommended in our September 2003 report that the Kennedy Center

- develop comprehensive project management policies and procedures to guide the construction process;
- ensure development and utilization of timely data to oversee construction projects;
- ensure that needs for human capital expertise are met.

Kennedy Center officials agreed with our findings and recommendations and acknowledged the importance of focusing on these areas. The officials said that they have initiated efforts to improve the overall construction program by (1) contacting the Federal Facilities Council for assistance with updating and improving construction management policies and procedures; (2) requesting monthly written project management reports; and (3) hiring additional in-house and contractor staff to assist in the upcoming plaza and buildings project.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions you or the other members of the subcommittee may have at this time.

Contact and Acknowledgements

For future contacts regarding this testimony, please contact Mark L. Goldstein at (202) 512-2834. Individuals making key contributions to this testimony included Terrell Dorn, Casey Brown, and David C. Merrill.

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