CITY OF NEW YORK OFFICE OF THE COMPTROLLER John C. Liu COMPTROLLER

FINANCIAL AUDIT Tina Kim Deputy Comptroller for Audit



Audit Report on New York City Housing Authority Oversight of the Construction Management/Build Program

7E11-119A

March 15, 2012



THE CITY OF NEW YORK OFFICE OF THE COMPTROLLER 1 CENTRE STREET NEW YORK, N.Y. 10007-2341

John C. Liu

March 15, 2012

To the Residents of the City of New York:

My office has audited the New York City Housing Authority (NYCHA) determine whether contractors participating in the NYCHA's construction management/build program (CM/Build) are being adequately monitored. We audit programs such as CM/Build to ensure that all work is being performed at the direction of the NYCHA and that the work is timely completed and of good quality.

The audit found that the NYCHA's senior officials are hampered in their ability to adequately oversee contractors in the CM/Build programs because of problems with obtaining accurate and complete information from the in-house computerized Primavera system. In addition, the NYCHA lacks a method for tracking and identifying those change orders whose tardy resolution led to delays in completing construction and closing out project work. As a result, senior officials were unable to respond promptly to delays in completing construction and closing out projects.

The audit recommends that the NYCHA should ensure that accurate and complete information is recorded in and obtained from the Primavera system; complete and close construction management/build projects within their originally scheduled timeframes; consider the viability of assigning in-house construction project managers on a part-time basis to oversee the program; regularly update the Primavera system; designate timeframes for carrying out all the steps required to process change orders; and track designated change order timeframes.

The results of the audit have been discussed with NYCHA officials, and their comments have been considered in preparing this report. Their complete written response is attached to this report.

If you have any questions concerning this report, please e-mail my audit bureau at audit@comptroller.nyc.gov.

Sincerely,

Z . John C. Liu

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The City of New York Office of the Comptroller Financial Audit

Audit Report on New York City Housing Authority Oversight of the Construction Management/Build Program

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AUDIT REPORT IN BRIEF

The New York City Housing Authority (Authority) provides affordable housing to nearly 404,000 City residents in 334 city-wide housing developments of 178,910 apartments. The Authority's Five-Year Capital Plan for Fiscal Years 2011-2015 provides for \$2.4 billion for infrastructure, modernization, and other systemic improvements to Authority housing. To carry out some of these improvements, the Authority implemented a construction management/build (CM/Build) program in 2003 "to improve the quality of construction projects and ensure that they are administered effectively and efficiently." Under the current phase of the program, the Authority awarded CM/Build requirement contracts totaling \$425 million to 10 construction management companies.

Although the City allocated approximately \$144 million to the Authority during the Five-Year 2011-2015 capital plan, none of these funds were included in the CM/Build program that we audited. Nevertheless, we chose to carry out the audit to identify any systemic deficiencies that could affect capital improvement projects in which City funding is being used.

The Authority uses a computerized project management system, Primavera, to track critical project information such as budgets, project schedules, project updates, critical issues, requests-for-information, change orders, and payments to ensure that projects are completed on time.

Audit Findings and Conclusions

We identified deficiencies in the way the Authority monitors projects in the CM/Build program. The Authority's in-house staff of construction project managers maintains adequate oversight of the CM/Build construction managers. However, the Authority's senior officials are hampered in their ability to adequately oversee CM/Build projects because of problems with obtaining accurate and complete information from the Primavera system. In addition, the Authority lacks a method for tracking and identifying those change orders whose tardy resolution led to delays in completing construction and closing out project work. As a result, senior officials were unable to respond promptly to delays in completing construction and closing out projects.

Moreover, while the Authority properly assigned in-house staff to the project locations to oversee the CM/Build program, the decision to assign the staff on a full-time basis may indicate that the Authority lacks confidence in the effectiveness of the construction management companies that were employed to carry out the CM/Build program. If the Authority assigned its in-house staff to the project locations on a part-time basis, the Authority could save \$1,529,488 annually.

We did not observe any problems with the quality of the construction work for the projects that we sampled. Furthermore, our review of payment requisition logs in the Primavera system indicated that Authority personnel were appropriately reviewing and processing payment requisitions.

Audit Recommendations

This report makes a total of seven recommendations, including that the Authority:

- Ensure that accurate and complete information is recorded in and obtained from the Primavera system.
- Ensure that CM/Build projects are completed and closed out within their originally scheduled timeframes.
- Consider the viability of assigning in-house construction project managers on a part-time basis to oversee the CM/Build program.
- Regularly update the "Required Documents" and "Bi-Week" updates sections in Primavera.
- Ensure that CPD Portfolio Tracking Reports contain information about all projects that have not obtained an "A" notation in the Primavera system.
- Designate timeframes for carrying out all the steps required to process change orders, including initiation, estimating, negotiation, and approval.
- Track designated change order timeframes in the Primavera system and CPD Portfolio Tracking Reports.

Authority Response

In its response, the Authority agreed with four recommendations and disagreed with two recommendations. One recommendation—to ensure that accurate and complete information be recorded in the Primavera system—was not directly addressed by the Authority. However, while acknowledging that Primavera lacked meeting minutes, the Authority contended (but did not provide supporting documentation) that it conducted meetings with project managers and senior staff.

INTRODUCTION

Background

The New York City Housing Authority (Authority) provides affordable housing to nearly 404,000 City residents in 334 city-wide housing developments of 178,910 apartments. The Authority's Five-Year Capital Plan for Fiscal Years 2011-2015 provides for \$2.4 billion for infrastructure, modernization, and other systemic improvements to Authority housing. (Although the City allocated approximately \$144 million to the Authority during the Five-Year 2011-2015 capital plan, none of these funds were included in the CM/Build program that we audited.) To carry out these improvements, the Authority implemented a construction management/build (CM/Build) program in 2003 "to improve the quality of construction projects and ensure that they are administered effectively and efficiently." Under the current phase of the program, the Authority awarded CM/Build requirement contracts totaling \$425 million to 10 construction management companies.

Under the respective contracts, the Authority issues task orders to the construction management firms to provide services in connection with specific projects (e.g., rehabilitate brickwork and roofing at Woodside Housing in Queens). The price of a task order includes the cost of the construction manager's personnel who directly supervise the work and the cost of the subcontractors who actually perform the work. Under the current CM/Build program, the Authority issued 55 task orders for construction services to eight of the 10 construction management companies, totaling \$452,526,131 million.¹ In addition, the Authority issued 28 task orders totaling \$983,544 for pre-construction services.²

The Authority uses a computerized project management system, Primavera, to track critical project information such as budgets, project schedules, project updates, critical issues, requests-for-information, change orders, and payments to ensure that projects are completed on time.

Objectives

The objectives of this audit are to determine whether the New York City Housing Authority is effectively monitoring construction management/build (CM/Build) contractors to ensure that all work being performed is at its direction, that the work is completed and of good quality, and that payments requested by and made to contractors comply with the payment provisions of the contracts.

¹ The eight companies were China Construction America, Inc., Don Todd Associates, HAKS Engineering, Hill International, Inc., LiRo Program & Construction Management, Munoz Engineering and Land Surveying, STV Construction, Inc., and TDX Construction Corporation.

 $^{^2}$ Pre-construction services include reviewing the constructability of design documents, compiling cost estimates, and overseeing the bidding process.

Scope and Methodology Statement

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. This audit was conducted in accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter. This audit was conducted by auditors with engineering backgrounds.

The scope of this audit covers Fiscal Year 2010. Please refer to the Detailed Scope and Methodology at the end of this report for the specific procedures and tests that were conducted.

Discussion of Audit Results

The matters covered in this report were discussed with Authority officials during and at the conclusion of this audit. A preliminary draft report was sent to Authority officials on December 22, 2011, and discussed at an exit conference held on January 11, 2012. On January 23, 2012, we submitted a draft report to Authority officials with a request for comments. We received written comments dated February 6, 2012, from the Department on February 8, 2012.

In its response, the Authority agreed with four recommendations and disagreed with two recommendations. One recommendation—to ensure that accurate and complete information be recorded in the Primavera system—was not directly addressed by the Authority. However, while acknowledging that Primavera lacked meeting minutes, the Authority contended (but did not provide supporting documentation) that it conducted meetings with project managers and senior staff.

The Authority's full response is included as an addendum to this report.

FINDINGS AND RECOMMENDATIONS

We identified deficiencies in the way the Authority monitors projects in the CM/Build program. While the Authority's in-house staff of construction project managers maintains adequate oversight of the CM/Build construction managers, the Authority's senior officials are hampered in their ability to adequately oversee CM/Build projects because of problems with obtaining accurate and complete information from the Primavera system. In addition, the Authority lacks a method for tracking and identifying those change orders whose tardy resolution led to delays in completing construction and closing out project work. As a result, senior officials were unable to respond promptly to delays in completing construction and closing out projects.

Moreover, while the Authority properly assigned in-house staff to the project locations to oversee the CM/Build program, the decision to assign the staff on a full-time basis may indicate that the Authority lacks confidence in the effectiveness of the construction management companies that were employed to carry out the CM/Build program. Accordingly, if the Authority assigned its in-house staff to the project locations on a part-time basis, the Authority could save \$1,529,488 annually.

For the sampled projects, we did not observe any problems with the quality of the construction work. Furthermore, our review of payment requisition logs in the Primavera system indicated that Authority personnel were appropriately reviewing and processing payment requisitions.

These matters are discussed in greater detail in the following sections.

Authority Officials Lack Effective Controls for Overseeing CM/Build Projects

The Authority's senior management is hampered in its ability to adequately oversee CM/Build projects because of problems with obtaining accurate and complete information from the Primavera project management system which, according to Authority officials, is the system of record for monitoring and overseeing the program. Our review indicated that the Authority's senior officials lacked appropriate information about the status of the sampled projects to anticipate and promptly resolve problems that may adversely affect a project's timely completion. In the cases of the sampled projects, the Authority's in-house staff of construction project managers provided adequate oversight of the CM/Build projects. However, given that the Authority's senior officials could not rely on the information from the Primavera system, we conclude that the Authority's monitoring of the CM/Build program was insufficient to ensure that projects were completed and closed out within their originally scheduled timeframes.

The Authority's Primavera system classified seven of 32 (22 percent) projects in the construction phase as "off" (i.e., behind) schedule, and 64 of 65 (98 percent) projects in the close-out phase as "off" schedule.³ There were seven projects in construction that were behind schedule an average of almost seven months each. The 64 projects in the close-out phase were behind schedule an average of 21 months each. If the Authority's senior management had been able to obtain and use accurate information from the Primavera system about the current status of these late projects, it might have anticipated-- and possibly resolved-- any problems that caused these projects to be delayed.⁴ As many of the CM/Build projects were undertaken to ensure that Authority housing developments are watertight, weather resistant and safe, delays in completing improvements could adversely affect the residents of these developments.

For projects that fall behind schedule, Authority procedures require that the Program Director and Assistant Deputy General Manager conduct weekly meetings with the construction management companies to address project problems and delays. The outcome of these meetings may require the construction managers to submit revised schedules to recover the lost time. However, there was no evidence in the Primavera system that these meetings were held. In contrast, regular bi-weekly project meetings were conducted by the Authority's in-house construction project managers at the respective project locations.

Overall, the seven delayed projects in the construction phase exceeded the number of originally scheduled days by 1,416. On the basis of the hourly rates and overhead and profit "multipliers" contained in the CM/Build contracts, we calculated that the additional construction manager staffing cost for this period totaled \$3,026,700. Overall, the 64 delayed projects in the close-out phase exceeded the number of originally scheduled days by 40,768. We similarly calculated that the additional cost for this period totaled \$3,098,520. In total, the additional cost to pay for construction manager personnel for the projects that were delayed during the construction and close-out phases was \$6,125,220.

The Authority's CM/Build program does not utilize City funding, and consequently, the City will not be burdened with the additional \$6 million in construction manager costs that we calculated. Nevertheless, we are concerned that problems with the Authority's inefficient use of the Primavera system are indicative of control deficiencies that may adversely affect the Authority's capital improvement projects that do use City funding.

Recommendations

The Authority should:

1. Ensure that accurate and complete information is recorded in and obtained from the Primavera system. In that regard, Authority officials should use this information to monitor the status of CM/Build projects more effectively.

³ The close-out phase begins when construction is deemed substantially complete (95 percent) and covers activities such as completing punch-list work, obtaining final regulatory approvals, warranties, and guaranties, and making final payments.

⁴ The delays for the seven projects in construction were caused by problems with approving change order requests, a subcontractor default, and a lack of obtaining timely building permits.

Authority Response: "While the Primavera system may not have contained information regarding the status of sampled projects, weekly meetings were held between CM's, NYCHA project managers and senior staff at NYCHA where problems were discussed and resolved to the extent possible. Therefore, senior staff did have background information on issues in these projects.

While the Primavera system may not have had any evidence that meetings were held, NYCHA does have meeting minutes from these weekly meetings, which included program directors and ADGMs, to demonstrate not only that the meetings occurred, but that specific project issues were discussed and resolved where possible."

Auditor Comment: During the course of the audit, we asked Authority officials to provide us with the weekly project meeting minutes. Despite requests on August 18, 2011, September 12, 2011, and October 12, 2011, and at a meeting on November 14, 2011, the Authority could not provide us with the minutes of these meetings. As noted, the Primavera system lacked evidence that meetings were held.

2. Ensure that CM/Build projects are completed and closed out within their originally scheduled timeframes.

Authority Response: "Delays in construction and closeout have been attributed to other, very specific issues, such as permitting, poor quality designs, etc. The information that may or may not have been in Primavera had no impact on the performance of these projects and having this data in Primavera would not have resulted in shorter delays in either construction or closeout.

The cost of the construction and closeout delays appear overestimated. During many of the periods of delay during construction (i.e. awaiting permits), CM staffing was reduced to appropriate levels. NYCHA did not incur costs associated with full CM staffing until after construction was in full swing. Even the minimal staffing that was assumed in the calculation (superintendant, site safety engineer, general construction inspector and secretary) overstates the estimated cost, which is closer to three rather than four full-time staff members. As for the close-out delays, most were associated with downtime either waiting for responses from other agencies, documentation of even legal proceedings with very little or no direct labor being applied to the project."

Auditor Comment: We had previously revised our draft audit report in accordance with the estimates of construction and close-out delays that we received from the Authority's audit liaison on January 13, 2012 (as quoted below).

"NYCHA's estimate of extra costs resulting to construction delays are about 75% of your estimate, i.e. \$3,026,700 and the costs related to delays in the close-out process to be about 50% of your estimate, i.e. \$3,098,520 for a total of \$6,125,220."

Accordingly, the Authority's current complaint about the amount of the additional construction manager costs is markedly at odds with the previous January 13, 2012, estimate of extra costs, which we had accepted.

Inefficient Use of Authority Personnel

The Authority's CM/Build program was intended "to improve the quality of construction projects and ensure that they are administered effectively and efficiently." To achieve that goal, the Authority awarded contracts to private construction management companies which employed their own personnel to manage and supervise the construction projects. But despite paying the private construction managers \$6,639,360 annually to perform construction project management work, Authority policy required that in-house construction project managers be concurrently assigned to projects that were handled by CM/Build construction managers.

We estimate that the cost of the Authority personnel assigned to the 32 CM/Build projects that were in the construction phase during the audit was approximately \$3,058,976 annually. The primary role of an Authority construction project manager, according to the Authority's personnel job description, ". . . is to perform construction project management work and oversee construction work." But given that these tasks were to be carried out by the private construction managers, it is our conclusion that the Authority's practice of using its personnel to replicate these work tasks is wasteful and inefficient.

Moreover, assigning Authority staff to CM/Build projects on a full-time basis casts doubt on the effectiveness of the CM/Build program. We understand the Authority's concern with ensuring that projects in the program be properly managed. However, if the Authority had confidence in the way that the construction management companies were carrying out the program, the Authority could assign its staff on a part-time basis to simply oversee the private construction managers, thereby yielding an annual savings of \$1,529,488. This would allow the Authority to reallocate its in-house staff to oversee and complete other capital improvement projects.

Recommendation

3. The Authority should consider the viability of assigning in-house construction project managers on a part-time basis to oversee the CM/Build program.

Authority Response: "The Authority does have a policy that in-house CPM's are assigned concurrently to projects that were being handled by CM's. However, that assignment is not to provide the same services that the CM provides. NYHCA CPM staff are on site to provide oversight of the CM. This is a practice employed by many city agencies. In addition to CM oversight, the NYCHA CPM's act as liaisons to the residents we serve, required as most of our work occurs in occupied residential buildings, NYCHA believes that it is crucial to have a NYCHA employee on site that residents can contact to voice their concerns or issues regarding the construction. While it is agreed that some of the sampled projects may have had too many CPM's assigned for the responsibilities outlined above (and that issue is being addressed in conjunction with the redesign of standard procedures and policies for capital project delivery), the estimated savings appears excessive." *Auditor Comment:* We agree that Authority project management staff should act as resident liaisons and provide oversight of the construction managers. However, as noted in the audit, the full-time assignment of the Authority managers was excessive and replicated certain responsibilities for which the Authority was paying private construction managers.

Accordingly, daily site visits conducted on a part-time basis (i.e., mornings or afternoons) should be sufficient for Authority project managers to act as liaisons to residents and ensure that the construction management firms are performing adequately.

<u>The Primavera System Lacks</u> <u>Adequate Information about Project Status</u>

We attribute the Authority's problems with effectively overseeing the CM/Build program to a lack of adequate project information in the Primavera system. Primavera contains two categories in the "Notepad" section entitled "Required Documents" and "Bi-Week" updates, which are important tools by which the Authority's senior officials can review and gauge the status of each project. However, these sections lacked appropriate information or were not regularly updated.

The "Required Documents" section contains a list of approximately 24 critical documents that must be recorded and updated by Authority personnel during the course of a project.⁵ Our review indicated that Authority personnel did not adequately update the "Required Documents" section of Primavera for 54 of 64 (84 percent) projects in the close-out phase that were behind schedule and six of seven (86 percent) projects that are in the construction phase that are behind schedule. The "Bi-Week" updates section must contain regular status reports for each project. Our review found that projects in the construction phase were properly updated. However, for the 64 projects in the close-out phase, eight (12.5 percent) were missing regular updates. Gaps in the updates ranged from three months to over two years.

Another method by which Authority officials are supposed to track the status of the projects are the Primavera system's Capital Project Division (CPD) Portfolio Tracking Reports. The CPD Reports summarize critical information about active projects in the construction or close-out phases, such as change order status, budget and payment information, and comparison of actual completion schedules to baseline schedules. However, our review found that many projects in the close-out phase were not listed in the CPD Reports.

Authority officials deem a project completed and closed out when Authority personnel record an "A" notation (i.e., actual date) in the Primavera system. The Authority has designed the Primavera system to exclude from the CPD Reports projects with an "A" designation, which

⁵ The Required Documents section includes Notices-of-Award, punch-list sign-offs, letters of substantial completion and acceptance, dates when Department of Buildings and other regulatory agency approvals were obtained, and the dates when warranties and guarantees were received.

would allow officials to concentrate solely on active projects that may require their attention. However, 22 (34 percent) of the 64 projects in the close-out phase that were behind schedule and lacked an "A" designation in Primavera were nevertheless excluded from the CPD Reports. The 22 projects noted outstanding items such as unresolved change orders, regulatory agency approvals, incomplete close-out folders, and open final payments, all of which are required before projects can be officially closed.

Inadequate updates and missing information in Primavera and faulty CPD reports hinder the Authority's senior officials from obtaining accurate information about the current status of a project. Timely and accurate project information is necessary in order for the Authority to anticipate and prevent potential problems from affecting a project's scheduled completion.

Recommendations

The Authority should:

4. Regularly update the "Required Documents" and "Bi-Week" updates sections in Primavera.

Authority Response: "We agree."

5. Ensure that CPD Portfolio Tracking Reports contain information about all projects that have not obtained an "A" notation in the Primavera system.

Authority Response: "We agree."

Excessive Time to Process Change Orders

Unresolved change orders contributed to delays in 40 of the 64 (63 percent) projects in the close-out phase that were behind schedule. However, the Authority lacked appropriate controls that could have alerted senior officials to this situation and prompted them to timely resolve the outstanding change orders. In particular, the Authority does not have procedures that stipulate durations for carrying out each step required for initiating, estimating, and negotiating change orders. The Authority does stipulate in the CPD Portfolio tracking reports that the "Average time to process change orders (in days)" is 45 days. But this timeframe is misleading because the 45-day period only covers the period after a change order has been negotiated and approved by the Authority's Accounting and Fiscal Services Department. The 45-day duration does not cover the time required for initiating, estimating, and negotiating a change order. Designating timeframes and recording them in the Primavera system for those critical steps should be an important control method for monitoring the change orders.

Recommendations

The Authority should:

6. Designate timeframes for carrying out all the steps required to process change orders, including initiation, estimating, negotiation, and approval.

Authority Response: "We agree."

7. Track designated change order timeframes in the Primavera system and CPD Portfolio Tracking Reports.

Authority Response: "We agree."

DETAILED SCOPE AND METHODOLOGY

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. This audit was conducted in accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter. This audit was conducted by auditors with engineering backgrounds.

The scope of this audit covers capital construction projects supervised by construction management firms under the Authority's CM/Build program during Fiscal Year 2010. We limited the focus of the audit to capital projects that were in either the construction or close-out phases and that were classified as behind schedule in the Primavera system.

We obtained from the Primavera system a list of 131 projects that were carried out under the CM/Build program in Fiscal Year 2010. Of these projects, we identified as our population 102 projects that were in either the construction phase (32) or the "close-out" (70) phase of work. We excluded the remaining 29 projects from our population because they did not directly pertain to the Authority's oversight of the construction managers.⁶ Five of the 70 projects in the closeout phase were actually closed prior to Fiscal Year 2010. Accordingly, we reduced the population of projects in the close-out phase to 65.

We reviewed the Primavera system's CPD Portfolio Tracking Reports to identify those projects that were behind schedule. According to the reports, seven of the 32 projects in construction and 64 of the 65 projects in the close-out phase were behind schedule. Our overall population, therefore, consisted of 71 projects (7 plus 64) that were behind schedule.

To understand the policies, procedures, and internal controls governing the Authority's oversight of construction managers, we interviewed Authority personnel, including the Assistant Deputy General Managers, Program Directors, Deputy Program Directors, Project Administrators, and Construction Project Managers. We documented our understanding of operations in memoranda and flowcharts. We asked Authority officials to review and confirm the accuracy of our flowcharts and memoranda. We obtained and reviewed the Authority's Capital Projects Division Manual issued April 2010, CM/Build contracts and task orders, and other policies and procedures.

We also interviewed Authority personnel to understand how they use the Primavera system, which according to Authority officials, is the system of record for monitoring and overseeing the CM/Build program. Accordingly, to determine whether the Authority is effectively monitoring CM/Build contractors, we examined the Primavera system to ascertain whether it was properly updated and maintained with accurate and current information by Authority personnel.

⁶ The 29 projects consisted of three projects in the design phase, three in the procurement phase, and 23 that were for pre-construction services.

To determine if the work was of good quality, we visited three of the seven CM/Build project sites (Woodside and Beach 41st Housing in Queens, and Strauss Housing in Manhattan) that were behind schedule. To ascertain the level of the Authority's oversight at the project locations, for six of the seven CM/Build projects that were behind schedule, we interviewed Authority construction project managers and project administers and reviewed their daily construction logs.

To determine whether the Authority was properly reviewing and processing payment requisitions in a timely manner, we reviewed payment requisition logs listed in the Primavera system. We verified whether the requisitions showed the amounts originally requested by contractors, the certified amounts reflecting any deductions made by Authority personnel, and the time elapsed between the end of the billing period and the date that checks were issued.



JOHN B. RHEA CHAIRMAN EMILY A. YOUSSOUF VICE-CHAIR MARGARITA LÓPEZ MEMBER VICTOR A. GONZALEZ MEMBER VILMA HUERTAS SECRETARY ATEFEH RIAZI ACTING GENERAL MANAGER

> H. Tina Kim Deputy Comptroller Office of the Comptroller One Centre Street, New York, NY 10007-2341

Re: Draft Audit Report on New York City Housing Authority ("NYCHA") Oversight of the Construction Management/Build Program, January 23, 2012

NEW YORK CITY HOUSING AUTHORITY 250 BROADWAY • NEW YORK, NY 10007 TEL: (212) 306-3000 • http://nyc.gov/nycha

Dear Ms. Kim:

The following are our responses to the findings in the draft report.

Finding: The Authority's senior management is hampered in their ability to adequately oversee CM/Build projects because of problems with obtaining accurate and complete information from the Primavera project management system, which, according to Authority officials, is the system of record for monitoring and overseeing the program.

Audit Recommendation: the Authority should:

1. Ensure that accurate and complete information is recorded in and obtained from the Primavera system. In that regard, Authority officials should use this information to monitor the status of CM/Build projects more effectively.

NYCHA Response: While the Primavera system may not have contained information regarding the status of sampled projects, weekly meetings were held between CM's, NYCHA project managers and senior staff at NYCHA where problems were discussed and resolved to the extent possible. Therefore, senior staff did have background information on issues in these projects.

While the Primavera system may not have had any evidence that meetings were held, NYCHA does have meeting minutes from these weekly meetings, which included program directors and ADGMs, to demonstrate not only that the meetings occurred, but that specific project issues were discussed and resolved where possible.

February 6, 2012

2. Ensure that CM/Build projects are completed and closed out within their originally scheduled timeframe.

NYCHA Response: Delays in construction and closeout have been attributed to other, very specific issues, such as permitting, poor quality designs, etc. The information that may or may not have been in Primavera had no impact on the performance of these projects and having this data in Primavera would not have resulted in shorter delays in either construction of close out.

The cost of the construction and close out delays appear overestimated. During many of the periods of delay during construction (i.e. awaiting permits), CM staffing was reduced to appropriate levels. NYCHA did not incur costs associated with full CM staffing until after construction was in full swing. Even the minimal staffing that was assumed in the calculation (superintendant, site safety engineer, general construction inspector and secretary) overstates the estimated cost, which is closer to three rather than four full-time staff members. As for the close-out delays, most were associated with downtime either waiting for responses from other agencies, documentation of even legal proceedings with very little or no direct labor being applied to the project.

Finding: The Authority's CM/Build program was intended "to improve the quality of construction projects and ensure that they are administered effectively and efficiently." To achieve that goal, the Authority awarded contracts to private construction management companies which employed their own personnel to manage and supervise the construction projects. But despite paying the private construction managers to perform construction project management work, Authority policy required that in-house construction project managers be concurrently assigned to projects that were handled by CM/Build construction managers.

Audit Recommendation:

3. The Authority should consider the viability of assigning in-house construction project managers on a part-time basis to oversee the CM/Build program.

NYCHA Response: The Authority does have a policy that in-house CPM's are assigned concurrently to projects that were being handled by CM's. However, that assignment is not to provide the same services that the CM provides. NYCHA CPM staff are on site to provide oversight of the CM. This is a practice employed by many city agencies. In addition to CM oversight, the NYCHA CPM's act as liaisons to the residents we serve, required as most of our work occurs in occupied residential buildings, NYCHA believes that it is crucial to have a NYCHA employee on site that residents can contact to voice their concerns or issues regarding the construction. While it is agreed that some of the sampled projects may have had too many CPM's assigned for the responsibilities outlined above (and that issue is being addressed in conjunction with the redesign of standard procedures and policies for capital project delivery), the estimated savings appears excessive.

Finding: We attribute the Authority's problems with effectively overseeing the CM/Build program to a lack of adequate project information in the Primavera system. Primavera contains two categories in the "Notepad" section entitled "Required

Documents" and "Bi-Week" updates, which are important tools by which the Authority's senior officials can review and gauge the status of each project. However, these sections lack appropriate information or were not regularly updated.

Audit Recommendation: the Authority should:

4. Regularly update the "Required Documents" and "bi-Week" updates section in Primavera.

NYCHA Response: We agree.

5. Ensure that CPD Portfolio Tracking Reports contain information about all projects that have not obtained an "a" notation in the Primavera system.

NYCHA Response: We agree.

Finding: Unresolved change orders contributed to delays in 40 of the 64 (63percent) projects in the close-out phase that were behind schedule.

Audit Recommendations: the Authority should: .

6. Designate timeframes for carrying out all the steps required to process change orders, including initiation, estimating, negotiation and approval.

NYCHA Response: We agree.

7. Track designated change order timeframes in the Primavera system and CPD Portfolio tracking Reports.

NYCHA Response: We agree.

NYCHA is currently upgrading Primavera and including more complete information into the system in conjunction with the redesign of standard procedures and policies for capital project delivery.

Sincerely yours,

in Dehalf of

John B. Rhea Chairman, NYC Housing Authority

Vice - Chair, NYCHOUSING Authority