



**CITY OF COLORADO SPRINGS
OFFICE OF THE CITY AUDITOR**

**08-04 MEMORIAL HEALTH SYSTEM
2007 YEAR END
CONSTRUCTION UPDATE**

PUBLIC REPORT

MARCH 26, 2008

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Office of the City Auditor

PUBLIC REPORT

Date: March 26, 2008

To: Honorable Mayor and Members of City Council
Members of Memorial Health System's Audit Committee
Members of Memorial Health System's Board of Trustees

Re: 08-04 – Memorial Health System 2007 Year End Construction Update

During the last half of 2007, we continued our review of the East and North Towers construction projects being undertaken by Memorial. This report is to provide an update on the ongoing monitoring of those projects. We included follow-up on three outstanding issues from our September 17, 2007 report. All three issues are considered cleared. As noted in the previous audits, our ongoing construction audit included a review and evaluation of procedures, practices, and controls related to the capital projects on a selective basis.

In addition to the follow-up on three findings related to our report of September 17th, we had three new findings as a result of this review. We also noted two areas where we want to recognize Memorial's actions that we classified as Commendable Practices.

As always, feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in purple ink that reads "Jeff Litchfield".

Jeff Litchfield
City Auditor

Cc: Dr. Larry McEvoy, II, Interim Chief Executive Officer & Chief Medical Officer/SVP
Gary Flansburg, Chief Financial Officer/SVP
Tracy Narvet, Controller
John Wyckoff, Compliance Officer
Joseph Taylor, Director of Facilities Management
Greg Gauna, Director of Construction Services
Tom Smith, Director of Materials Management
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Abbreviations and Acronyms used in this Report:

CA	Contract Administrator
JBA	Jonathan Bailey and Associates
MHS	Memorial Health System

Introduction

AUTHORIZATION

We continued our audit of construction activities at Memorial Health System (MHS) related to two major Hospital expansion projects, the East and North Towers. As of the time of this report, construction on the North and East Towers is complete and both facilities are operational. The East Tower is located on the Central Campus at 1400 East Boulder. The North Tower is located on the 82-acre North Campus at 4050 Briargate Parkway. The combined construction budgets for these two projects are approximately \$184 million.

We conducted this audit under the authority of Chapter 1, Article 2, Part 7 of the City Code, and more specifically parts 703, 705 and 706 of the Code, which state:

1.2.703: ENSURE PUBLIC ACCOUNTABILITY:

The City Auditor shall ensure that administrative officials are held publicly accountable for their use of public funds and the other resources at their disposal. The City Auditor shall investigate whether or not laws are being administered in the public interest, determine if there have been abuses of discretion, arbitrary actions or errors of judgment, and shall encourage diligence on the part of administrative officials.

1.2.705: DETERMINE EFFECTIVENESS AND EFFICIENCY OF PROGRAMS:

The City Auditor shall determine the extent to which legislative policies are being efficiently and effectively implemented by administrative officials. The City Auditor shall determine whether City programs are achieving desired objectives. The City Auditor shall review the administrative control systems established by the enterprises, department or group managers and by the City Manager, Utilities Executive Director and Memorial Hospital Executive Director and determine whether these control systems are adequate and effective in accomplishing their objectives.

1.2.706: EXAMINE BOOKS, RECORDS:

The City Auditor shall examine and inspect all books, records, files, papers, documents and information stored on computer records or in other files or records relating to all financial affairs of every office, department, group, enterprise, political subdivision and organization which receives funds from the City or under the direct or indirect control of the City Council. The Auditor may require any person to appear at any time upon proper notice and to produce any accounts, books, records, files and other papers pertaining to the receipt or expenditure of City funds, whether general or special. If that person fails to produce the papers, then the Auditor may request Council approval to search for and take any book, paper or record in the custody of that person or public official.

ORGANIZATIONAL PLACEMENT

The Office of the City Auditor is structured in a manner to provide organizational independence from the entities it audits. This independence is accomplished by the City Auditor being appointed by and reporting directly to the City Council. The audited entity in this audit, MHS, is governed by a Board of Trustees (a 15-member board also appointed by City Council).

Introduction

SCOPE AND METHODOLOGY

This follow-up audit is issued as part of the ongoing monitoring of the East and North Tower Hospital expansion projects.

As with any ongoing monitoring audit, we are reporting on the status of any open or unresolved items from prior reports. In general, ongoing monitoring audits include a review and evaluation of procedures, practices, and controls related to the projects on a selective basis. The specific areas focused on each quarter are primarily based on the higher risk areas at the time the audit was conducted.

The audit was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*, a part of the Professional Practices Framework promulgated by the Institute of Internal Auditors. The audit included such tests of records and other supporting documentation as deemed necessary in the circumstances. Sufficient competent evidential matter was gathered to support our conclusions.

Our fieldwork covered the period July 2007 through December 2007.

BACKGROUND

The North Tower construction was completed on April 4, 2007 and officially opened on April 25, 2007. The facility was fully operational during the period of this review. However, there were still some construction activities being done around the campus including a parking lot expansion that was completed in September 2007. Closeout activities were wrapping up and the MHS was awaiting the final payment request from the contractor.

A Temporary Certificate of Occupancy was granted for the East Tower on October 31, 2007. Relocation of Hospital Operations was phased in over a two week period and the Tower opened for business on December 12, 2007.

Construction for Pikes Peak Cardiology, a lessee of MHS occupying the 7th and part of the 6th floors of the new East Tower, was completed and Pikes Peak Cardiology opened for business on November 5, 2007.

COMMENDABLE PRACTICES

Master Plan – MHS hired a consultant to develop a master plan for both the East and North campuses. From a construction perspective, this Master Plan allows MHS to plan in advance the probable schedule and phasing for construction of facilities. Also, advanced planning facilitates effective long-term budgeting and spending controls.

Contract Database – MHS has adopted a contracts database to ensure uniform contracts. Rather than spending funds to develop a contracts database from scratch, MHS used the contracts database that was developed by Colorado Springs Utilities as the foundation. The contract database allows them to manage contracts more effectively. Rules and date driven safeguards are built into the contract database to require approvals and notify management of upcoming contract lapses. In addition, the database restricts and tracks any contract modifications.

Introduction

OVERALL OPINION

During the period of this review, MHS was able to clear three prior findings. Those findings were: Contract Administrator, No Signed Contract with the Architect, and Timely Contractor Billings. During this review, we also identified three additional findings and provided recommendations we believe will improve controls in the contract and construction processes.

FOR THE FUTURE

Since both hospital expansion projects are substantially complete, this will be our last report on these two projects. However, we have planned an audit of the overall contract process and, as a result of that review, might be visiting some of the contracts associated with these two projects. In addition, we will be performing an audit of the purchasing cycle, which might also involve purchases associated with these two projects.

***We have made no determination as to which findings are more important than others.
Therefore, the findings are not necessarily listed in order of importance.***

Findings, Recommendations and Responses

Follow up Items from Prior Reports:

The following findings and recommendations were outstanding items from prior Construction Update Reports:

1. Contract Administrator

With large construction projects, the Project Manager needs a resource that understands the details of the contractual agreement, the construction documents, and the responsibilities of the contractor, architects, and subcontractors. The Contract Administrator is the Project Manager's key resource in areas such as:

- Understanding the terms of all of the contractual agreements (e.g., Contractor, Architect, owner-retained subcontractors, etc.). This includes the scope of work, the general conditions, any exclusions or substitutions, etc.
- Understanding the construction documents. The contract spells out the legal agreement, but the construction documents (requirements, design documents, blueprints, schedule of values, etc.) are what drives the construction.
- Providing a secondary review of Contractor and Architect Applications for Payments. Because of the Contract Administrator's detailed knowledge of the contract, construction documents, and Contractor/Architect/Owner responsibilities, their review of Payment Applications is crucial to ensure billed costs are appropriate, within the scope of work, and Owners responsibility to pay.
- Reviewing Change Requests. Similar to Payment Applications, a secondary review by the Contract Administrator provides the Project Manager with assurance that proposed changes are outside of the contracted scope of work and billed at agreed upon rates.

Summary of Auditor's Recommendation and Action Taken: The Office of the City Auditor recommended that a Contract Administrator be hired. MHS hired a Contract Administrator. However, due to turnover and a critical need for project management, the individual hired took over duties as Memorial North's Project Manager. The Auditor subsequently renewed the recommendation and MHS renewed the advertisement for a Contract Administrator.

Auditor's Third/Fourth Quarter 2007 Follow-Up: MHS Construction Services team still does not have a full-time Contract Administrator performing as a Contract Administrator. However, the newly hired Director of Construction Services has determined that with the completion of two very large construction projects, the North and East Towers, he needs to evaluate the future workload and overall project management structure to see if a separate Contract Administrator position is still necessary, or if those duties can be filled by existing project management staff. The City Auditor does not plan to perform any additional follow-up on this item. However, future audits will evaluate the effectiveness of the structure of the Construction Services Department to insure the Contract Administrator's duties are being performed.

The Office of the City Auditor does not plan any additional follow-up on this issue. No response was requested from Memorial Health System on this issue.

2. No Contract with the Architect

The issue of no signed contract between the Architect (JBA) and MHS was addressed in the August 2006 Construction Update Audit. MHS's response to the audit report indicated that a

Findings, Recommendations and Responses

contract had not been signed with JBA due to the fast track construction approach and turnover in MHS Construction Services staff. However, MHS management understood the risk and had been working with JBA since March 3, 2006 to finalize contract negotiations.

Without a signed contract, MHS had no contractual ability to:

- hold JBA accountable for additional costs associated with potential design issues;
- hold JBA accountable for any delays associated with slow turnaround of design documents, requests for clarifications from subcontractors, or change requests;
- ensure the use of any JBA designs, drawings, or documentation for use on future phases;
- obtain or retain user requirements that JBA gathered at the inception of the project;
- ensure that JBA would sign off on Temporary or Final Certificates of Occupancy to allow MHS employees to occupy the Towers and conduct business.

Summary of Auditor's Recommendation and Action Taken: The City Auditor recommended MHS enter into written contracts with the Architect, which should limit MHS's total cost for architectural services. MHS responded that they fully agree with the recommendation.

Auditor's Third/Fourth Quarter 2007 Follow-Up: MHS finalized negotiations with the Architect with regard to contracts for the North and East Tower projects. Contracts have been executed with the Architect for both of the projects.

The Office of the City Auditor does not plan any additional follow-up on this issue. No response was requested from Memorial Health System on this issue.

Findings, Recommendations and Responses

3. Timely Contractor Billings

Overall, the North Tower Contractor, JE Dunn, had provided timely billings. However, the City Auditors were requested by MHS Construction Services team to review Change Order #682, which contained charges for clean up and temporary protection that ranged from September 2005 to February 2007. Per the Contractor, the costs were incurred due to the excessive Change Orders on the project. The Auditors' primary concerns with the Change Order were:

- MHS was not made aware of the significance of the additional clean up or temporary protection costs until February 2007. As such, MHS did not have an opportunity to manage these costs over the two year period the costs were escalating.
- If the costs were associated with Change Orders, per the contract, the costs should have been included in the cost of the Change Order.
- Because the support was not well documented, it was not clear if the costs were associated with the original contract scope, change requests (which require approval prior to the work being done), or some unforeseen events.
- Due to time span that the existing support covers (1000+ time cards, 300+ materials invoices), the time to review the Change Order was excessive and unreasonable.

The contract between MHS and JE Dunn, the Construction Manager, required the following:

- AIA A121 Sec 2.3.2.6: The Construction Manager shall maintain a daily log containing a record of weather, Subcontractors working on the site, number of workers, Work accomplished, problems encountered and other similar relevant data as the Owner may reasonably require.

JE Dunn was able to provide time cards, but did not have a daily log of work that described what work was performed, i.e., work accomplished. A daily log of work would have given MHS the ability to determine why the work was done, if it was within the scope of the original contract, or related to a Change Order.

- AIA A121 2.3.2.7: The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variance to the Owner and Architect at regular intervals.

As stated previously, this Change Order represents costs that stem from 2005. The Change Order submitted on March 20, 2007 was not a timely submission. The method of billing has been firmly established through the monthly Application and Certificate of Payment. These costs could have easily been billed incrementally each month. In addition, MHS was only given a vague inference to the growing costs in writing in November of 2006. At that time, the extent of the cost was not indicated by the Contractor. This inference did not represent communication of variances at regular intervals nor was it indicative of a good system of cost control by the Contractor.

Findings, Recommendations and Responses

Summary of Auditor's Recommendation and Action Taken: The auditors recommended that MHS Construction Services team continue to review the Change Order and negotiate with JE Dunn. MHS agreed with the recommendation. The City Auditors worked with MHS and JE Dunn to help resolve this issue. MHS elected to discontinue the use of AIA contracts for future construction projects whenever possible.

Auditor's Third/Fourth Quarter 2007 Follow-Up: The situation involving Change Order # 682, which was reported on in our 2nd quarter report, has been resolved. MHS and JE Dunn reached an amicable resolution with the cost of the change order being reduced by \$103,147.

The Office of the City Auditor does not plan any additional follow-up on this issue. No response was requested from Memorial Health System on this issue.

Findings, Recommendations and Responses

New Findings: The following findings and recommendations are new items. Items 4 and 5 relate specifically to the North Tower. Item 6 pertains to both the East and the North Tower projects.

4. Contingent Contracts

In August 2006, MHS signed at least three contingent contracts with different contractors to be used for potential future work. At the time these contracts were signed, they were essentially invalid because they lacked some of the basic elements of a contract, such as:

- **No mutual assent:** Since these contracts were contingent upon future projects, the scope of work was unknown at the time the contracts were signed and could not be included.
- **No certainty of terms:** The contracts were written as a stop-gap for potential future unspecified projects, so no specific terms were known. Since there was no scope of work; start dates, end dates, or milestone dates could not be specified.
- **No consideration:** Since the timeline and type or amount of work was unknown, the amount of compensation to be paid to the contractor could not be determined or referenced.

After being signed, the contracts were put on file for future use. In May, 2007 one of the pre-signed contracts was used for the parking lot expansion project at the North Tower. When the scope of work and amount to be paid was agreed upon by MHS and the Contractor, no amendments were created and signed to reference or amend the original contingent contract. This created the opportunity for potentially costly contract disputes.

Auditor's Recommendation: We recommend contingent contracts not be used. In general, contracts should not be signed unless they contain the essential, basic elements of a legal contract. Additionally, any contract-related documents created after the original contract is signed should be properly referenced as an addendum or amendment to the original contract.

MHS's Response: MHS has developed both a new contract database for storing and tracking contracts as well as a new construction contract. Neither tool was available when the agreement to build the parking lot at the north campus was entered into. The governing contract was signed by the Chief Operating Officer, on behalf of MHS and a representative of the City Attorney's Office. All future contracts for construction services will be signed on the MHS contract form.

The contract referenced above contained all pertinent information regarding the work to be done and how the final project should look and perform. The plan document, approved by the city engineering department, had soils reports, compaction testing, erosion control and standard grading. This plan document was part of the RFP packet provided and what the two bidders used to develop their response. It is MHS's opinion that this constituted the construction document with the scope of work to be performed in building the parking lot. Based on this information, we believe that this should not be part of a new issue or overall conclusion in this report.

Findings, Recommendations and Responses

5. Lack of documentation of waiving the public competitive bid process

The parking lot at the North Tower was expanded at a price of \$409,219. A business decision was made by MHS to invite only two contractors to bid on the expansion project. The two contractors invited to bid were already onsite working on projects at the North Tower. No other contractors were invited to bid, and no public notice was given that would allow other contractors the opportunity to request bid documents.

Waiving of a public bidding process is allowed per MHS Materials Management Policies and Procedures manual (*Section 5.03.1-18: Waiver of Public Notice*) if it is considered to be in the best interest of MHS and it's customers. However, per MHS procedure, the reasons for waiving of any public bid process must be documented and approved by a Director level member of management. We were not provided evidence this occurred.

Discussions with MHS revealed the following reasons for not opening the bid up publicly:

1. To expedite the project since the hospital was operational and parking space was becoming an issue. Limiting the bid to two contractors that had good, established relationships with MHS and already fully understood the specifications and soils reports would allow them to shorten the bid process and decrease back and forth time clarifying specifications and expectations.
2. MHS felt that since the two existing contractors, their employees, and their subcontractors were already working onsite, it would be less of a safety and operational impact to the newly established hospital operations than if an additional contractor had to be brought onsite.
3. MHS felt that the bids were competitive because the two contractors' bids were sealed and the contractors were not aware of how many other contractors they were bidding against.
4. Using one of the two contractors already onsite would save mobilization costs.

The Auditors found no evidence that would either support or refute items 1 through 3 above. However, the Auditors do not agree that by using the two contractors already onsite there would be any savings on mobilization costs because a general contractor does not typically charge mobilization costs on small projects where a field office presence is not required.

Subcontractors will charge for mobilization on small projects, which is a cost that would be incurred by any general contractor, whether currently onsite or not.

Auditor's Recommendation: We recommend MHS follow their Materials Management Policies and Procedures for all projects. If the Director authorizes a waiver of the public bidding process, this waiver should be documented with the detailed reason for the waiver.

MHS's Response: It is MHS's contention that the bid process followed for the parking lot at the north campus met the elements of competition and resulted in a product delivered at a fair price. The scope of work was developed by NES with drawings produced by Classic Consulting. MHS GC'd the irrigation work which was performed by Landtech. MHS also hired CTI Thompson to do the soils reports as well as the compaction test. These documents were provided to the two firms currently working onsite to price. These same two firms were onsite as a result of previously being selected through a competitive RFP process. Other factors playing a role in

Findings, Recommendations and Responses

the decision to use the companies already onsite should be noted. Concern was expressed from a safety standpoint in having a third work crew on the premises. In addition there was a very real demand to ensure completion of this project as quickly as possible. It was felt selecting from one of the two crews onsite ensured a quicker completion date.

It should also be noted that the two companies onsite did not know they were the only ones being considered.

- All in all the decision was made to only consider the two construction companies currently onsite for the RFP. The following policies were reviewed as supporting the decision.
- Policy 5.03.1-15 Public Notice - Invitation for Bid or notices of the availability of Invitations for Bids shall be mailed or otherwise furnished to a sufficient number of prospective bidders to secure adequate competition.
- Policy 5.031-18 Waiver of Public Notice - The Director may authorize the waiver of public notice upon the Director's determination that the bidding process would not be enhanced by public notice.
- Policy 5.03.1-32 Waiver of Competition section G) When the Director determines in that to do so is in the best interest of the Hospital.

Clearly MHS felt the elements of competition were met in the action carried forth in awarding the contract to build the parking lot at the north campus. MHS further agrees and commits to better documentation, maintained in the appropriate files per policy for awarding contracts in the future. The steps taken in regard to the parking lot were prudent, time sensitive and carried out with the best interest of MHS in mind. Maintaining the proper documentation appears to be the final element missing regarding the actions that were taken.

Findings, Recommendations and Responses

6. No written construction project management procedures

The Construction Services Department and Purchasing did not have written procedures regarding the management of construction projects. Construction Services was primarily responsible for managing construction projects. However, Purchasing was responsible for the review and approval of construction contracts as well as procuring goods and services that may be used either in the construction process or upon completion of the project (e.g., medical equipment for a newly constructed hospital). Policies and procedures should outline the roles and responsibilities for Construction Services and Purchasing.

Auditor's Recommendation: We recommend that procedures be developed that outline basic roles, responsibilities, expectations, and deliverables for construction projects.

Procedures should include but not be limited to:

- User requirement documentation;
- Estimating the cost of new projects;
- Budget creation, monitoring, and reporting;
- Bid process procedures outlining required bid documents, notification requirements, documentation requirements for modifying or waiving bid requirements, and awarding bids;
- Use, routing, approval, and monitoring of construction contracts;
- Project management deliverables and reporting requirements;
- Contractor, Architect, and Owner meeting deliverables and requirements;
- Payment application review and approval procedures;
- Change order review and approval procedures;
- Contract close out procedures;
- Define roles and responsibilities of Construction Services versus Purchasing.

MHS's Response: We are in the process of developing a department policy and process manual. This manual will improve MHS construction project administration and will be consistent with existing city policies. Bidding processes, change order protocol, estimating formats, budget formats, are some of the items to be included in the manual.