



OFFICE OF THE
City Auditor

Multi-Sport Tournament Recreation Site (MTRS) Contract Review

October 31, 2012

The Office of the City Auditor conducted
this project in accordance with the
*International Standards for the
Professional Practice of Internal Auditing*

MTRS Contract Review

1. Introduction

The Multi-sport Tournament Recreation Site (MTRS) project began in 2008. It is located at the corner of Ellerslie Road and 50th Street. The City designed the site to accommodate field sports such as soccer and rugby and it includes parking, dressing rooms, concessions, stands, and playground facilities.

The Parks Design and Construction Section of the Parks Branch, within the former Infrastructure Services Department, originally prepared and managed this project. In June of 2011 the Parks Branch was reorganized and Parks Design and Construction Section was relocated to the Project Management and Maintenance Services (PMMS) Branch of the Community Services Department which is now managing the project.

The MTRS project was originally tendered in May 2009 for \$14.1 million but due to budget constraints the scope of the project was reduced. In November of 2009, a reduced negotiated contract of \$8.1 million including GST and contingency was finally awarded to the same vendor. Construction on this project, which is still in progress, began in the fall of 2009 with the completion of \$0.3M in site preparation work.

In June 2012, staff from the PMMS Branch requested the assistance of the Office of the City Auditor (OCA) to reconcile the contractor's invoice amounts and payments made to the contractor. This report provides a description of the reconciliation work conducted along with the observations we made regarding the project management and contracting practices used by the Branch for this project.

2. Role of the OCA

Working with PMMS Branch staff, we conducted a detailed financial reconciliation and analysis of the original contract, change orders, contract inspector quantity reports, vendor invoices and City payment records. We reviewed records relating to the MTRS project from 2008 to 2012.

During our review, we also assessed the Parks Design and Construction Section's contracting activities for this project against established City contracting and project management practices. We interviewed current project management staff and management and also reviewed available project management files.

3. Observations

Through our reconciliation, we have determined that to date, the work completed amounts to \$9.023 million and the City has paid out \$8.967 million. However, the City has not withheld adequate funds for holdback provision. Additionally we have identified a number of questionable project management practices relating to this project including:

- Not adhering to the standard contract clauses requiring holdbacks on contract payments.
- Allowing work to start on additional items prior to approval of the field change orders requests.
- Discrepancies between City records and Vendor invoices.
- Some contract items specified non-standard units of measure, making compliance monitoring difficult.
- Zero quantity and zero dollar value items included in the contract.
- Not using public tendering when appropriate.

The following sections discuss our findings in more detail.

3.1. Total Contract Value

The City originally tendered the MTRS project for a contract price of \$14.1 million, but due to budget constraints it reduced the scope of the project and renegotiated the contract to a sum of \$8.1 million including GST and contingency.

Table 1 shows a summary of the original contract value and change orders which increased the total contract value to \$10.3 million (including GST).

Table 1 – Summary of Contract Value
(\$ thousands, including GST)

Description	Date Approved	Totals
Original Contract Award (with contingency)	Nov 3, 2009	\$8,070
Purchase Change Order #1	Mar 18, 2011	\$1,722
Purchase Change Order #2	June 07, 2012	\$535
Total Contract Value		\$10,327

Project Costs and Payments

The total contract value is \$10.3 million, of which \$9.023 million has been expended (as shown in Table 2).

As of September 30, 2012, the City has made payments on 19 invoices totaling \$8.967 million for this project and therefore may have outstanding financial commitments of \$56,000 for work completed.

Table 2 – Summary of Project Costs and Payments
(\$ thousands, including GST)

Description	Totals
Contract Work Completed	\$9,023
Payments to Vendor (As of Sept 30, 2012)	\$8,967
Owing on Work Completed	\$56

3.2. Holdback Provision

The City's contract general conditions include a provision to holdback funds from vendor invoices until work is complete and a Construction Completion Certificate is issued. The holdback is to protect the City in the event work is deficient (either not complete or not to the standard) and against legal liabilities that may arise such as the contractor not paying subcontractors. The holdback included in the contract for the MTRS project indicates that the City would withhold a total of 15 percent of invoice amounts until Construction Completion Certificates are issued.

Payments to the vendor were made using the City's electronic receipt settlement process. For this project, once invoices were received and entered into the financial system by the project department, payment checks were automatically generated to the vendor. The vendor invoices we reviewed identify the total payment request, the holdback amounts, and the net payment to be made to the contractor. Our review of the City's financial records show that in most cases the total payment request was processed rather than the net amount. This resulted in the City withholding only two holdbacks totaling \$151,000.

Based on vendor invoices totaling approximately \$9.0 million, under the City's holdback provision, as much as \$1.35 million could have been withheld. As shown in Table 2, as of September 30, 2012, the City currently owes the Vendor \$56,000, which is significantly below the 15 percent holdback provision stipulated in the general conditions of the contract. In our opinion, the project manager for this project should have been aware of appropriate holdbacks during the course of monitoring project costs. Not complying with the holdback provision set out in the contract agreement may have placed the City in a position of financial risk.

3.3. Unapproved Field Change Requests

The City of Edmonton has standard general conditions that detail the City's expectations of its contractors. The general conditions state that the City may at any time make additions, deletions, or changes to the contract work as long as management approves the change in advance.

If the additional costs cannot be covered by the contract's confidential contingency amount, management must get the contract award value increased to include the additional costs. As shown in Table 1, two purchase change orders were created (on

March 18, 2011 and June 7, 2012) in order to increase the total contract value by a combined total of \$2.3 million.

The City uses field change request forms to manage contract item changes. The form identifies all requested contract item and price changes, and management must approve the request in writing prior to starting work on any change. If the contractor does not provide pricing with the proposal, the City can reject any invoice amounts from the contractor related to those changes.

The approved contract identified 38 individual contract items. During our work, we identified 97 new or changed items. The items were included on 33 field change request forms amounting to approximately \$2.3 million in contract work. We observed that none of the 33 field change request forms were approved by management. We also observed that the field change requests were prepared in 2012 after most of the work was already complete.

Throughout a project, a City Contract Inspector inspects the work performed by the contractor and records these quantities, by contract item, onto a Contract Quantity Report. These reports are then used by the vendor to produce its progress claim invoice. Once the Project Manager reviews and signs off the progress claim invoice and the Contract Quantity Report, the applicable payment is processed by the City.

We compared the quantities on the Contract Quantity Reports to the applicable progress payment invoices for this project to determine if the City has paid too much to the contractor. We found several discrepancies between what the City's Contract Inspector recorded on the Contract Quantity Report and what the contractor included in the invoice. In some cases the contractor charged more than what the City's records showed and in other cases the City's record was higher than what the contractor charged.

It is the role of the City's Project Manager to manage all changes to an approved City contract through a change request process. No changes should move forward until change requests are completed and approved. However, the majority of changes to this project were completed without approved change requests and therefore were not in compliance with the City's change request process.

These observations highlight a lack of regard from the Project Manager to established City project management and contracting practices. As such City project management staff within this Section allowed the Vendor to move forward on unapproved work placing the City in a position of financial risk.

3.4. Issues with Contract Specifications

A typical City construction contract generally identifies all required items in a table that includes description, size or quantity, unit of measure, unit price, and total price. The description of the work is generally associated with industry standard units of measure because some unit measures are more applicable than others. During our reconciliation of invoices to the City's records, we noticed that the contract contains units of measure that are inappropriate for some items. For example, in the contract, the unit of measure for some earthworks items (such as stripping and stockpiling of topsoil) is in square metres (area) instead of the industry standard of cubic metres (volume), as expected.

Using inappropriate units of measure in a contract reduces the accuracy to which work completed can be measured. A standard unit of cubic metres for earthwork can be easily validated on-site by an inspector counting truckloads. By using a non-standard measure such as square metres, the inspector can only validate the area that is stripped but not the depth. An example of importance of using appropriate units of measures relative to this contract is described in the following paragraph.

Specified within the MTRS contract is an item for the stripping and stockpiling of an area of topsoil to an estimated depth of 100 millimetres (approximately 4 inches). We reviewed the Contract Quantity Report (dated December 22, 2009) completed by the City's contract inspector, which indicated that the contractor had stripped and stockpiled an area of topsoil to a 100 millimetres depth. However, the vendor stripped and stockpiling an area of topsoil to a 300 millimetres depth which management has indicated was negotiated. This example illustrates that determining the exact depth of topsoil to be stripped and stockpiled can be difficult and that using a volumetric measure such as cubic metres would have made it easier for the City's contract inspector to confirm the amount of work completed.

We also noticed that there are 55 items included in the contract that have zero quantity and zero cost. Allowing these items to remain in the contract increases the possibility that any additional work that is required relating to these items will be done by the original contractor through the use of a contract change order. We observed this for 12 of these items. To date no additional work has been done on the remaining 43 items.

3.5. Public Tendering Opportunities

The City tendered the MTRS contract through an open tender process and received a single bid in the amount of \$14.1 million. It then negotiated with the vendor and issued a revised contract of \$8.1 million.

In accordance with both provincial and municipal policy, the City strives to use public tendering to ensure it gets the best value for its money. There is a risk that the City did not obtain the best value for money by not reissuing the revised contract for public tender. As the revised contract was for less work, contractors who were unable to complete the original amount of work may have had the capacity to complete the amount required for the revised contract at a competitive price.

City procurement guidelines indicate that all purchases over \$75,000 should be acquired through the tender process. We also observed that the City did not use public tendering when they added *additional work* that related to the approved contract items or when they added *new items* outside of the approved contract. We have identified several contract items in both of these categories that were above \$75,000, thus making them eligible for public tendering.

Additional Work to Approved Contract

Table 3 shows the difference between the cost of items that were included in the approved contract and then later changed. Increases to items already identified on the approved contract total \$1.056 million. Credits of \$283,000 were deducted by the contractor, leaving a net change of \$773,000.

Table 3 – Changes to Contract Items

Description of Items	Original Value	New Value	Increase
Construct and compact clay cap as per engineering directions	\$100,000	\$111,928	\$11,928
Supply and install an internal electrical lighting and distribution system	200,000	835,836	635,836
Construct paved roadways as per specifications	794,412	818,870	24,458
Supply and install COE sports field mix as per specifications	0	32,933	32,933
Spread, grade, and level class B topsoil	0	153,689	153,689
Install and maintain various shrubs and trees (10 items)	0	146,951	146,951
Subtotal	1,094,412	2,100,207	1,005,795
GST	54,721	105,010	50,290
Total with GST	\$1,149,133	\$2,205,217	\$1,056,085

The most significant change to this contract was for electrical work. The original MTRS contract specifications identified electrical work estimated at \$700,000 as a Project Cost Sum. Using a Project Cost Sum method, the expectation is that the City will issue a Change Order for any changes to the sum. The renegotiated contract identified only \$200,000 for this same electrical work. The final amount for the electrical work is \$835,836 as shown in Table 3. We believe that the City had an opportunity to tender and project manage this work, which could have resulted in significant savings.

New Items to Approved Contract

We also found that the City did not tender for a significant amount of new work performed by the contractor as shown in Table 4. New items added to the approved contract total \$1.489 million.

Table 4 – New Contract Items

Description of Items	Value
1. Supply and install water works additions (irrigation of sports fields)	\$662,873
2. Strip on-site topsoil and stockpile (300 millimetre depth topsoil)	150,575
3. Install and maintain various shrubs and trees	214,950
4. Construct the west roadway	103,447
5. Items less than \$75 thousand (21 items)	285,891
Subtotal	1,417,736
GST	70,887
Total with GST	\$1,488,623

The largest addition was \$662,873 for the supply and installation of the water works system. In this case, we also observed that the contractor subcontracted the work to another vendor. Similar to the electrical work described above in the previous section, this work could have been tendered and also project managed by the City resulting in significant savings.

Although it appears convenient to use the on-site vendor to coordinate related work, we believe the City should at all times try to achieve the best value through public tendering. The type and nature of this work could have been performed by a number of vendors, which may have resulted in significant savings to the City.

4. Conclusions

PMMS Branch staff asked us to assist them with reconciling invoices and payments relating to the MTRS project. This project, which was approved at \$8.1 million, included numerous changes, additional costs, and credits which added to its complexity.

The current total contract value for this project is \$10.3 million, including GST and change orders. To date, the work completed amounts to \$9.023 million and the City has paid out \$8.967 million. Therefore, the City has paid out \$56,000 less compared to the work completed. However, it appears that staff did not observe the City's holdback provisions as defined in the contract. Only two holdback provisions for \$151,000 were observed for invoices of \$9.0 million in total value. The City normally reserves 15% for holdbacks in order to protect itself. Therefore, the City may be in a position of financial risk if an incident were to occur with the Vendor.

In total, the project includes 97 contract item changes which are identified in 33 field change requests. We found several discrepancies between what the City's Contract Inspector recorded on the Contract Quantity Report and what the contractor included in the invoice. Two purchase change orders totaling \$2.3 million were added to increase the project's budget funding to accommodate these changes. However, we observed that the City's project management staff did not comply with the City's change request process as none of the field change request forms were approved by management before work started.

During our reconciliation of invoices to the City's records, we noticed that the contract contains units of measure that are inappropriate for some items such as square metres versus cubic metres for earthwork. Using inappropriate units of measure in a contract reduces the accuracy to which work completed can be measured by the City's contract inspectors and places the City in a position of risk.

We also observed that City's staff did not capitalize on public tendering opportunities which likely could have resulted in savings for the City. Several large contract items such as electrical and water works could have been publicly tendered, but were directly awarded by the City to the vendor on site.

The manner in which the MTRS contract was managed did not comply with many of the City's project management and contracting practices. The deficiencies identified in this report will assist the Branch to improve its processes. As part of the 2013 OCA Annual Workplan, the OCA plans to conduct a review of the project management and contracting processes within the Branch.