



# Audit of Corporate Real Estate Management: Strengthening Accountability and Oversight of Change Orders in Capital Projects

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Auditor General

**AUDITOR  
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# Executive Summary

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**CREM delivers complex capital construction projects**

The Auditor General's [2025 Work Plan](#) included a review of the Corporate Real Estate Management Division's oversight and management of capital projects.

The Corporate Real Estate Management (CREM) Division is responsible for delivering some of the City's largest and most complex capital construction projects, including the new Etobicoke Civic Centre, St. Lawrence Market North, and Workplace Modernization (ModernTO<sup>1</sup>) program. CREM's 2026 Capital Budget and 10-Year Capital Plan (2026-2035) is nearly \$2 billion in gross expenditures. Additionally, CREM manages capital projects for other City divisions totaling over \$1.7 billion in capital costs.

The CREM Project Management Office (CREM-PMO) oversees and manages these capital construction projects.

**Why this audit matters**

Changes that occur on capital projects can result in project delays and significant cost increases. Changes are generally approved on capital projects through the use of change orders, so it is important that there is proper review and oversight of change orders.

In addition, the Auditor General's [2025 Annual Report on the Fraud and Waste Hotline](#) highlighted an emerging fraud risk the City is facing related to change orders on capital projects. Specifically, there was a trend of allegations that subcontractor documentation was altered by various contractors through the change order process to inflate fees and overbill the City. For example, in 2024, a general contractor was suspended from City work for five years as a result of overbilling and inconsistencies in subcontractor documentation accompanying change order submissions.<sup>2</sup>

Taking these factors into consideration, our audit focused on CREM's processes for reviewing capital project change orders and related documentation.

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<sup>1</sup> ModernTO and the Workplace Modernization Program aim to reduce the City's office footprint from 55 buildings to 15 and modernize municipal work environments.

<sup>2</sup> The February 2025 Staff Report to General Government Committee recommending the suspension of the supplier is available at: <https://www.toronto.ca/legdocs/mmis/2025/gg/bgrd/backgroundfile-253152.pdf>

**Audit objective**

The objective of this audit was to assess whether CREM sufficiently monitors and oversees capital project change orders, ensuring that change orders (and the associated cost and schedule impacts) are properly justified and appropriately reviewed and approved.

**Opportunities for improvement**

CREM recently revised its capital project change order process, with staff training completed by October 2025. Although the change orders examined during the audit precede the implementation of the revised process, our review of the updated procedures indicate that further improvements can be made.

Our audit identified opportunities for CREM to strengthen its project managers' accountability and oversight of external consultants and general contractors to support timely project delivery and ensure all contract changes are properly documented, reviewed and appropriately approved.

Ultimately, CREM is responsible and accountable for reviewing, approving and overseeing all construction change orders. While external consultants play an important advisory role by providing technical expertise, recommendations, and administrative support, CREM staff must ensure that change orders are justified, properly documented, and in the best interest of the organization.

Our detailed findings are summarized as follows:

**A. Strengthening Processes to Ensure Appropriate Change Order Oversight**

**CREM should enhance policies and procedures and strengthen oversight of change orders**

We found that CREM policies and procedures do not sufficiently set clear expectations for staff overseeing and reviewing change orders. While the current process outlines some roles and responsibilities for project stakeholders, it does not provide sufficient detail or guidance to ensure consistent and effective oversight of change orders.

Our audit findings emphasize the importance of reinforcing expectations for how staff should oversee and review change orders and related supporting documentation. For example, in our sample of 105 change orders across eight capital projects, we found:

**Over \$500K in exceptions – amounts billed by general contractor are inconsistent with subcontractor invoices**

- Instances where amounts billed by the general contractor were inconsistent with subcontractor invoices. There are over \$500,000 in exceptions on one project that are still under investigation. See **Confidential Attachment 1** for further details.
- Incorrect or unknown markups applied in 48 per cent of change orders, resulting in at least \$50,000 in overcharges.

- Additional fees in 35 per cent of change orders totaling approximately \$403,000 (two per cent of the value of those change orders). These fees included charges for supervision, project management, insurance, and bonding that were in addition to the contracted cumulative markups of 15 to 25 per cent of the change order value.
  - On one project, there was a further \$219,000 in extra charges for insurance and bonding, in addition to contracted markups, on change orders not included in our sample.

**B. Reinforcing Roles and Accountabilities for Change Order Review and Approval**

**CREM project managers rely significantly on external consultants' change order reviews**

We found very limited evidence that CREM project managers independently review change orders to ensure compliance with contract terms. Instead, they rely significantly on external consultants' reviews and recommendations when approving change orders.

While external consultants provide technical expertise and play an important role in project administration, responsibility for financial decisions and contract compliance ultimately rests with the City. As such, CREM staff should not rely solely on consultant reviews and recommendations. They should be conducting their own independent reviews and due diligence to assess change orders (and the associated cost and schedule impacts) are properly justified and comply with contract and policy requirements.

During our audit, we identified:

**Missing approvals, supporting documentation, and evidence of review**

- Change orders and change directives were approved late or lacked required approvals
- Limited evidence of the nature and extent of project manager and consultant reviews (e.g., emails confirming pricing and markups and marked up quotations were often missing)
- Missing supporting documentation, mathematical errors, insufficient cost details, and inaccurate change order logs
- Insufficient documentation to demonstrate that project managers confirmed change order work was completed before approving payment

To address these weaknesses, CREM needs to strengthen its change order review and approval processes.

**Change orders caused by design errors and omissions are not consistently tracked**

On most projects, the external consultant responsible for project design is also responsible for reviewing change orders and making recommendations for their approval. This can sometimes create a potential conflict of interest when the same consultant prepares the designs and then subsequently determines whether a change order is required, including identifying the underlying reasons for the change (which may be caused, in some cases, by a design error or omission).

Change orders in our sample, that CREM project managers confirmed were attributed to design errors and omissions, were often categorized as being due to other causes such as general coordination, unforeseen site condition, or owner requested on the change order and/or change order log. CREM does not have a consistent method to track change orders resulting from design errors and omissions. Furthermore, the Division does not have formal policies for assessing and pursuing potential cost recoveries for these types of change orders. Consistent practices to manage cost recoveries are important, because a consultant making a design error may be liable for costs related to the changes and reasonable efforts should be made to recover these costs.

**C. Improving Performance Through Ongoing Monitoring, Evaluation, and a Stronger Project Management System**

**Contractor and consultant performance evaluations are often not completed**

Across the eight projects we reviewed, very few of the required performance evaluations for external consultants and general contractors were completed. Management indicated that since the performance evaluations are not used to inform future contract awards, staff don't see the value of performing them.

Opportunities exist to improve procurement processes by considering past performance, but this can only be achieved if divisions consistently complete evaluations and communicate the results to suppliers and the Purchasing and Materials Management Division.

**CREM's quality assurance review process can be enhanced**

CREM has established a quality assurance (QA) review process for capital projects. However, the QA reviews conducted by CREM's Project Management Office (CREM-PMO) Governance and Controls team, mainly focus on verifying the presence of documents rather than assessing the quality, appropriateness, or accuracy of critical project decisions. The CREM-PMO QA reviews should be enhanced to include an evaluation of:

- Whether change orders were necessary or avoidable
- The reasonableness, accuracy, or mathematical correctness of contractor or subcontractor pricing, including the proper application of markups and additional charges
- Whether schedule impacts were appropriately assessed and justified
- Whether approvals were obtained in a timely manner or that supporting documentation was complete.

CREM's Quality Assurance and Risk Management (CREM-QARM) team also conducts QA reviews. In response to the Auditor General's 2023 report on the City's Modular Housing Initiative,<sup>3</sup> CREM-QARM completed a review in 2024 that included change orders; however, no other reviews have been conducted since then to monitor change order practices.

By enhancing the nature, extent, and frequency of CREM QA reviews of change orders, the Division can better verify that changes are properly reviewed, approved, documented, justified, and comply with the contract terms.

**No centralized system to track and analyze change orders**

Inconsistencies in processes and documentation persist because the Division does not have a centralized construction project management system. In addition, standardized tools and templates have not been used to track change orders and monitor project activity.

**No comprehensive view of the total number or total value of change orders across all projects**

Change orders were tracked manually and managed at the project level by individual CREM project managers, who were responsible for recording and maintaining change order information in project-specific change order logs. As a result, the Division was unable to readily produce summary reports or a comprehensive list of all change orders across all projects, including the total number and value of change orders by project.

In addition, the lack of a project management system and detailed centralized change orders data, including information on root causes, limits CREM's ability to have a consolidated view of change orders. This makes it more difficult to analyze trends and identify opportunities to improve change order management across individual projects and throughout the Division.

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<sup>3</sup> [Auditor General's 2023 Report, "City of Toronto's Modular Housing Initiative: The Need to Balance Fast Delivery with Stronger"](#)

Management advised that they are in the final stages of procuring an enterprise Project and Portfolio Management System with expected implementation in Q1 2027.

### **Conclusion**

CREM is responsible for delivering important City capital projects, providing oversight and project management expertise to ensure projects are completed on time and within the approved budget.

### **Opportunities to strengthen oversight and accountability**

The audit identified opportunities to improve CREM's monitoring and oversight of change order management processes for capital projects and reinforce project manager accountability for ensuring change orders (and the associated cost and schedule impacts) are properly justified, appropriately reviewed, and approved. Strengthening these processes will also improve the Division's oversight of external consultants and contractors involved in reviewing and administering change orders.

### **11 recommendations**

Implementing the 11 recommendations in this report will strengthen oversight and accountability, reduce the risk of errors, overpayments, and contract non-compliance, and support better management of project changes within the approved budget and schedule.

### **Thank you to CREM management and staff**

We would like to express our sincere appreciation for the co-operation and assistance we received during our audit from CREM management and staff.

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# Background

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The Corporate Real Estate Management (CREM) Division leads life cycle asset management and improvements of over 450 City-owned facilities with an approximate replacement value of \$7.1 billion, covering more than 13.0 million square feet.

### Financial Highlights

**CREM-PMO oversees project management of capital construction**

The Division is responsible for delivering some of the City’s largest and complex capital construction projects. The CREM Project Management Office (CREM-PMO) oversees and project manages the planning, execution and delivery of capital construction projects.

**CREM’s 2026-2035 Capital Plan is nearly \$2 billion**

CREM’s [2026 Capital Budget and 10-Year Capital Plan \(2026-2035\)](#) is \$1.981 billion in gross expenditures. The Capital Program includes:

- **State of Good Repair (SOGR)** projects at City facilities
- **Service Improvement, Enhancement and Growth** projects, including the Etobicoke Civic Centre, Workplace Modernization Program (ModernTO), Net Zero Carbon Plan Program, and Old City Hall
- **Health and Safety and Legislated Requirements**, including Accessibility for Ontarians with Disabilities Act (AODA) program, environmental remediation, and physical security enhancement projects

**CREM also manages over \$1.7 billion in capital projects for other City divisions**

In addition, CREM manages approximately 140 capital projects on behalf of other City divisions with a combined capital value of over \$1.7 billion.<sup>4</sup> The Mount Dennis Day Care, George St Revitalization, and Paramedic Station (330 Progress Ave) are examples of projects within this broader portfolio.

### Capital Project Roles and Responsibilities

Capital projects involve multiple internal and external stakeholders with distinct responsibilities critical to successful project delivery. At a high level:

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<sup>4</sup> Based on recently completed projects and ongoing projects as of January 2025

**General contractor is engaged to perform and manage the construction under the contract**

- A general contractor is procured to deliver the work outlined in the construction contract. This includes managing and coordinating all construction activities, supervising subcontractors, procuring materials, and ensuring the work is completed according to approved plans, specifications, schedule and budget. The general contractor is also responsible for submitting required documentation such as invoices and change order requests and addressing unforeseen conditions during construction.

**External consultant provides specialized expertise and support for capital projects**

- Given the complexity of capital projects, a third-party consultant is often engaged to design the project and manage the day-to-day administration of the construction contract. This includes providing recommendations to CREM project managers regarding project changes and related costs. The external consultant is also responsible for preparing change orders or change directives, reviewing invoices, monitoring construction, and maintaining project documentation to support accountability and transparency.

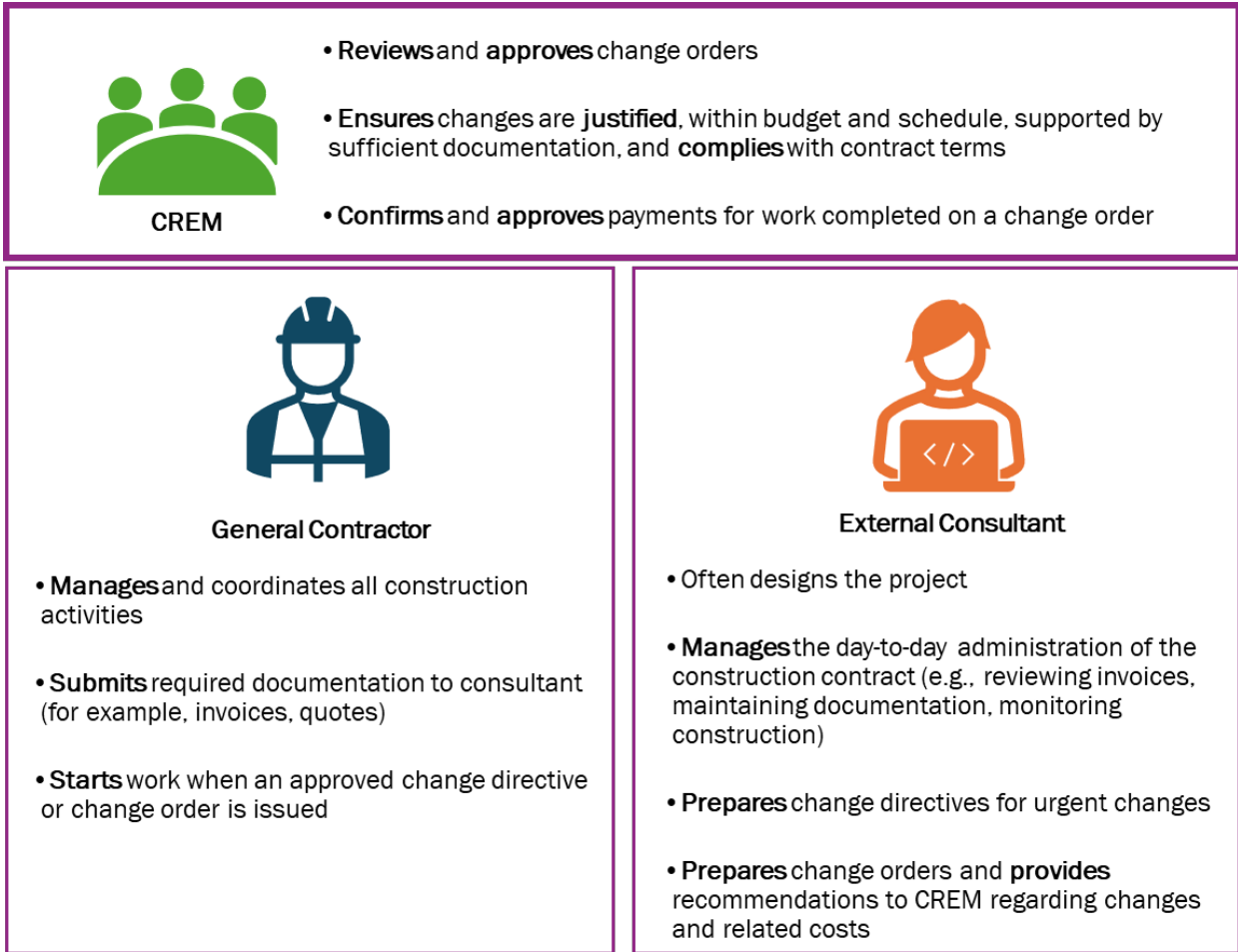
The process to review and approve change orders involves multiple parties. Typically, it is expected that the external consultant will assess whether a change is necessary and, if deemed warranted, prepare and submit the required documentation and change order to CREM for final review and approval.

**CREM is responsible for project oversight, including reviewing and approving change orders**

CREM is ultimately responsible for successful delivery of a capital project. This includes overseeing the change order process to ensure that changes are properly reviewed, documented, and approved, remain within the budget, and comply with contract terms.

**Figure 1** outlines the roles and responsibilities of capital project stakeholders. A glossary of relevant terms is included in **Exhibit 1**.

**Figure 1: Stakeholders' Roles and Responsibilities on Capital Projects**



**Fixed-Price Construction Contracts and Change Orders**

**Capital projects are often delivered under fixed-price contracts**

Many capital projects are delivered under fixed-price (lump sum) contracts, where the general contractor agrees to complete a defined scope of work for a predetermined price. The contract value is established at the time of award based on the contractor’s bid and remains unchanged unless the scope of work is formally modified through an approved change order.

**Change orders and change directives are used to address changes**

Change orders and change directives address changes to the scope and schedule of work during project delivery. Change orders reflect changes that have been mutually agreed by the City and the general contractor.

Change directives are used when work must proceed before the full cost or scope of the change is finalized. In these cases, the contractor will perform the work before a negotiated change order, with the final cost and contract adjustment determined later.

**Change orders must be approved by all parties**

All change orders and change directives must be approved by all parties as they represent a formal amendment to the original contract, affecting the project's scope, price, and/or schedule.

Funding for change orders and change directives is drawn from a contingency amount established at the beginning of the project. The contingency amount is intended to address unforeseen conditions and other unexpected costs during construction.

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# Audit Results

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## A. Strengthening Processes to Ensure Appropriate Change Order Oversight

### A. 1. Enhance Policies and Procedures to Reinforce CREM Responsibility for Oversight

**Auditor General's 2023 report on the City's Modular Housing Initiative identified the need for project management policies and procedures and improved change order management**

The Auditor General's 2023 report on Toronto's Modular Housing Initiative<sup>5</sup> included a review of how CREM administered modular housing construction work on-site, managed contractor invoices, and monitored contractor performance. At the time of our 2023 audit, no formal project management policies and procedures were established. The 2023 audit highlighted a need to improve change order management, invoice reviews, work progress inspections, and contractor performance monitoring.

**CREM implemented new change order procedures in 2023 and enhanced them in late 2025**

In mid-2023, CREM implemented a "Change Control Process" outlining how to manage proposed changes to capital projects. During our current audit, CREM further enhanced its processes to clarify roles and responsibilities and introduce a documentation checklist for change order processing.<sup>6</sup>

Our review of sampled change orders, together with an assessment of the current (2025) procedures, found CREM needs to provide more detailed guidance and training to their project management staff to ensure consistent and effective change order oversight. Specifically, the current procedures do not:

**Policies and procedures should be further enhanced to support effective and consistent oversight**

- Define CREM staff and management signing authority levels to proceed with change order or financial thresholds for reviewing and approving change orders and change directives, including escalation to senior management
- Clearly specify required CREM, consultant, and contractor sign offs (where necessary) for related supporting documents such as Contemplated Change Orders/Notices and Requests for Information (refer to **Section B.2**)

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<sup>5</sup> [Auditor General's 2023 Report, "City of Toronto's Modular Housing Initiative: The Need to Balance Fast Delivery with Stronger"](#)

<sup>6</sup> CREM updated its process in July 2025 and provided staff training on the enhanced process in September to October 2025

- Identify what mandatory documentation and information should be retained in CREM's files as evidence to demonstrate CREM and the consultant thoroughly reviewed change orders and change directives (refer to **Section B.1**)
- Provide guidance on what CREM project managers are expected to review when assessing the reasonableness of contractor pricing (e.g., costs, markups, and additional charges) and evaluating and documenting schedule impacts (refer to **Sections A.3** and **B.2**)
- Specify requirements for CREM project manager and consultant reviews of contractor invoices, including verifying that related work is completed according to the contract terms before payments are authorized and released (refer to **Section B.3**)
- Set expectations for how CREM project managers complete and communicate consultant and contractor performance evaluations and follow up to make sure appropriate corrective actions are taken when consultants or contractors do not meet expectations (refer to **Section C.1**)

**Lack of comprehensive procedures results in inconsistent practices across projects**

Without clear and comprehensive policies and procedures for managing change orders, we observed inconsistent practices applied across projects. This resulted in missed review and approval steps, and incomplete or inaccurate documentation.

**Recommendations:**

- 1. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to improve and formalize the Division's change order policies and procedures to ensure they are comprehensive, clear and consistently applied across all capital projects and aligned with contract terms. At a minimum, the procedures should:**
  - a. Establish CREM staff and management approval authorities and financial thresholds for review and approval of change orders, including requirements for escalation to senior management where necessary**
  - b. Specify documentation requirements for CREM staff for change orders, including justification for the change, cost and schedule impact, cost breakdown, and evidence of review and approval by required parties**
  - c. Specify documentation requirements for CREM staff confirming that markups and additional fees and charges included in change orders are applied in accordance with the contract**
  - d. Specify review requirements for CREM staff for contractor invoices, including verification that the related work is completed in accordance with the contract terms before payment is authorized and released**
  - e. Set expectations for CREM staff for completing and communicating consultant and contractor performance evaluations and following up to make sure appropriate corrective actions are taken in areas where consultants and contractors do not meet expectations.**
  
- 2. City Council request the Executive Director, Corporate Real Estate Management Division, to provide training for project managers when the capital project policy and procedures are implemented or updated, and when quality assurance reviews indicate the need for supplementary refresher training, to ensure consistent understanding and application of change order requirements across all capital projects.**

## A. 2. Contractor Invoicing Discrepancies Indicate a Need for Additional Review and Scrutiny

We included specific procedures in this audit in response to an emerging trend in risk the City is facing related to general contractor invoicing practices, where discrepancies revealed potential overbilling and inconsistencies in subcontractor documentation submitted to the City in support of change orders.

**91% of amounts charged were confirmed by subcontractors to be accurate**

Across the capital projects included in our sample, we selected 24 subcontractors<sup>7</sup> (52 invoices) and contacted them directly to confirm the amounts they invoiced to the general contractors. Of the 24 subcontractors contacted, 20 responded to our confirmation request.<sup>8</sup> Of these responses, the vast majority (91 per cent) of invoiced amounts were confirmed by the subcontractors to be accurate.

**Over \$500K in exceptions – amounts billed by general contractor inconsistent with subcontractor invoices**

Several exceptions, totaling over \$500,000 on one project, are still under investigation. CREM advised that despite their best efforts to obtain additional documentation from the general contractor to clarify and substantiate these exceptions, they have not yet been successful. CREM also confirmed that the external consultant on the project was unable to provide any additional documentation. Following further review, CREM leadership acknowledged that certain charges identified as exceptions cannot be verified due to the absence of supporting documentation. Refer to **Confidential Attachment 1** for further details.

Other examples of amounts billed to the City by the general contractor for work completed by the subcontractor that were not consistent with the actual amounts charged by the subcontractor include:

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<sup>7</sup> One subcontractor was selected twice, as they worked on two different capital projects under two different general contractors.

<sup>8</sup> In three of four cases where no response was received, the subcontractor was no longer in business. In one case, the subcontractor did not respond to numerous requests.

**At least \$58,000 in confirmed overbillings by general contractors**

- In one change order, the general contractor billed the City over \$31,400 (13 per cent) more than the subcontractor's invoice. The general contractor confirmed that the subcontractor reduced the cost after the change order was issued, but the contractor did not notify CREM of the adjustment.
- In a second change order, a different general contractor billed the City over \$26,600 (one per cent) more than the subcontractor's invoice. The subcontractor indicated that the cost was reduced after the change order was issued, but the contractor did not notify CREM of the adjustment

**Cumulative markups sometimes exceeded contracted limits**

In addition, three subcontractors indicated that they included markups in the amount charged, which were not detailed in their submitted quotes. The general contractor then applied its own markup on top of these amounts. As a result, the cumulative markups charged to the City sometimes exceeded the contracted rates. Refer to **Section A.3** for more on the incorrect application of contracted markups.

**CREM should better scrutinize change orders to reduce overbilling risk**

CREM's external consultants have a key role to play in reviewing the general contractor and subcontractor invoices, verifying costs, and ensuring that markups are applied correctly and in accordance with contract terms. CREM project managers need to provide an additional layer of scrutiny by monitoring change orders, confirming supporting documentation and following up on unusual or inconsistent charges. Strengthening these review processes will reduce the risk of overbilling and enhance accountability. **Section C.2** further outlines how CREM can enhance quality assurance reviews to detect potential overbilling and inconsistencies in supporting documentation.

Given that the risk related to potential contractor overbillings for work completed by their subcontractors is being identified not only by CREM, but by certain other City divisions, agencies, and corporations, it is worthwhile for the City to consider adopting a City-wide approach for assessing and addressing these contracting risks.

**Recommendation:**

3. **City Council request the City Manager, in consultation with the Chief Procurement Officer, City Solicitor, and relevant Division Heads, to review contract structures, procurement practices, legal risks, and vendor relationships and consider adopting a consistent City-wide approach for directly accessing and reviewing subcontractor records, to enhance oversight of change orders and address risks related to contractor overbilling and/or irregularities in change order documentation.**

### **A. 3. Ensure Contract Compliance for Markups and Additional Charges**

**Change order charges are not in compliance with contract terms**

All capital projects we reviewed included contract terms specifying what costs could or could not be included in change orders. In our sample of 105 change orders, almost half had charges that were not consistent with the contract terms, including change orders where:

- Markups exceeded contractual limits; and/or
- Additional fees were charged on top of the quoted costs for the work itself and contracted markups

**No evidence that CREM reviewed markups and additional charges**

In these cases, there was no evidence provided that CREM project managers or external consultants properly questioned or validated the appropriateness of the charges.

#### **Markups**

**Markup rates are specified in the contract**

Under the construction contract, markups represent the percentage added by general contractors and subcontractors to cover overhead, administration, and profit for the work associated with the change order. The contract specifies the allowable markup percentages and how they are to be applied.

**Markup provisions are not consistently applied in accordance with contract terms**

Our review of eight capital project contracts identified differences in the wording of markup provisions, despite the contracts following the same general format. For example,

- Some contracts specify that the general contractor may apply a markup on the subcontractors' total price less the subcontractor markup.
- Other contracts state a maximum cumulative markup percentage, without clarifying whether it should be applied on top of the subcontractor total price (including or excluding subcontractor markup), or how the markup should be allocated between the contractor and subcontractor.

Although the contracts use the same wording and format for markups, the markups approved by CREM project managers were applied inconsistently across projects, and sometimes even within the same project. Despite this, the change orders were approved without evidence that the interpretation or application of markups was questioned or validated.

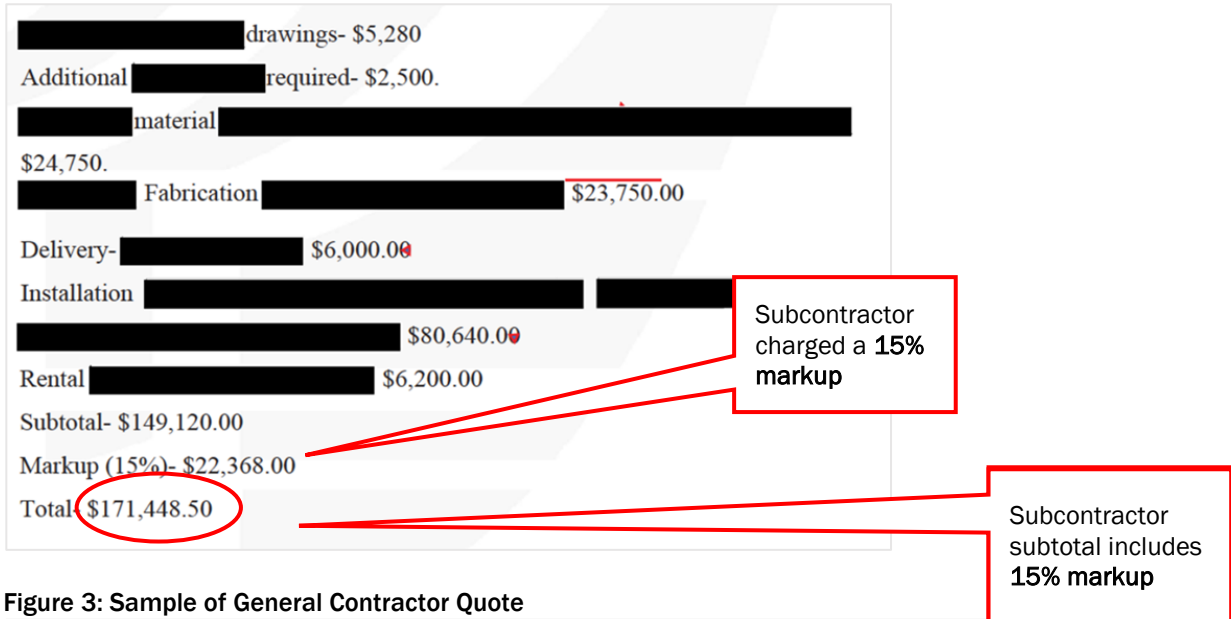
**Incorrectly applied markups, in some cases, exceeded contracted rates**

Based on our review of 105 change orders, we identified 50 (48 per cent) change orders where the markups applied were incorrect or unknown, and, in some cases, exceeded the allowable rates specified in the contracts. In these cases, we noted one or more of the following markup exceptions:

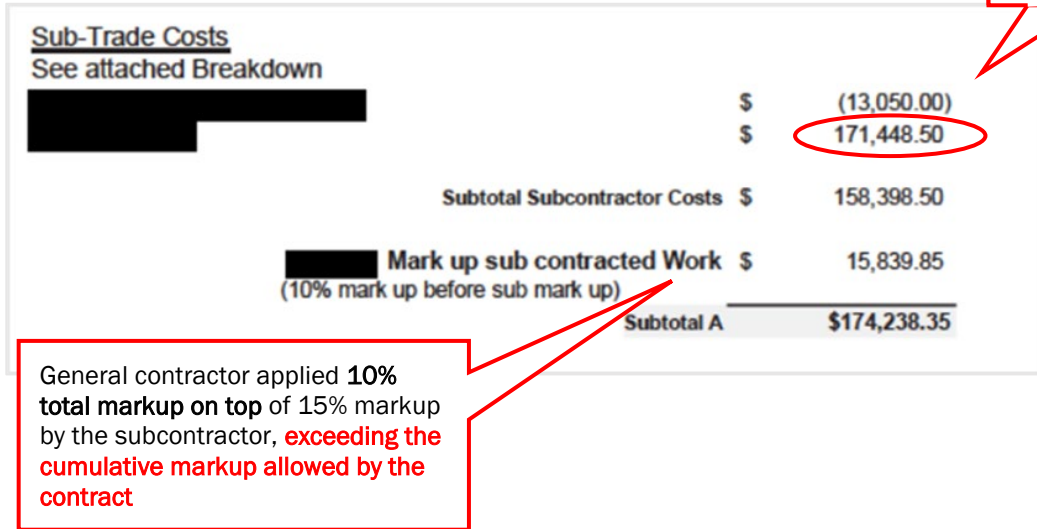
- The general contractor or subcontractors applied markups that exceeded contractual limits
- The general contractor markup was calculated on top of the subcontractors' markup, instead of being calculated net of the subcontractors' markup
- Cumulative markups exceeded the maximum allowable threshold
- The subcontractors' quotes did not clearly show the markup, making it difficult to determine whether it was applied in accordance with the contract

An example of the general contractor markup applied on top of the subcontractor markup is shown in **Figures 2 and 3.**

**Figure 2: Sample Subcontractor Invoice**



**Figure 3: Sample of General Contractor Quote**



**Markup errors highlight a need for more thorough reviews**

The total markup overages were approximately \$50,000 (or 0.19 per cent of the value of sampled change orders on the seven projects that reached substantial completion). These markup errors were not identified by the CREM project manager or external consultant, highlighting a need for more thorough review. While the 0.19 per cent error rate may appear immaterial, if this rate was to be considered across all active and completed capital projects in 2024, the potential financial impact could be as high as \$1.29 million.<sup>9</sup>

**Additional Charges**

**Contracts indicate that markups are the only compensation the contractor is entitled to for overhead, profit, incidental and administrative costs**

In our review of change orders, we also noted that in addition to markups, contractors charged additional project management, supervision, insurance, and bonding fees, even though the contracts we reviewed generally specify that [emphasis added] “*markups constitute the only compensation the Contractor shall be entitled to for any and all overhead, profit, incidental and administrative costs whatsoever related to the change, including, costs relating to superintendence and supervision, shop drawing production, estimating, site office and home office expenses, tools of Personnel, temporary facilities and controls, and coordination of any and all Work-related activities*”.

**Contractors charged additional fees beyond markups**

Specifically, in:

- 14 of 105 (13 per cent) change orders, additional fees for supervision and project management were charged, totaling nearly \$118,000 (21 per cent of change order values before markups)
- 23 of 105 (22 per cent) change orders from one project, included additional charges for insurance and bonding ranging from 1.36 to 6.62 per cent of the change order value (less markup and insurance and bonding fees), totaling approximately \$285,000.
  - Similar additional insurance and bonding charges were also applied to nearly all other change orders on this project, totalling approximately \$219,000 in additional costs over and above the contracted markups. We also observed that additional bonding charges were added to some subcontractor quotes in our sample, which are not included in this total.

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<sup>9</sup> As highlighted in **Section C.3**, CREM does not have a consolidated summary of the total value and number of change orders on its capital projects. In the absence of reliable data on the total value of each construction contract and associated change orders, this calculation uses the total markup error rate as a percentage of the total expected completed project cost on the seven projects and applies that rate to the total expected completed project cost of all active and completed capital projects in 2024, as recorded in the City’s financial system.

**Project files do not indicate why CREM approved additional charges on top of the contracted markups**

Even though the contracts clearly state that the markups constitute the only compensation the contractor is entitled to for overhead and profit, including supervision costs, CREM management indicated that some additional supervision and management charges may have been valid, where work was outside the original contract's scope. The lack of documented reviews by CREM project managers and the external consultants made it difficult to determine why the additional fees were approved and whether they were reasonable given the standard contract provisions.

**CREM relied on external consultant reviews and did not independently confirm that charges comply with City contract terms**

CREM project managers advised that external consultants are responsible for reviewing all charges and that CREM heavily relies on their review. While CREM project managers consider consultants' recommendations on the reasonableness of change orders, CREM staff remain ultimately responsible for reviewing and approving change orders, including validating that all costs related to changes comply with contract terms.

Furthermore, because consultant contracts do not always clearly define their responsibility related to reviewing change orders including confirming charges comply with the City's contract terms, the nature and extent of reviews they perform may not match what CREM staff believe the consultant is responsible for. (Refer to **Section B.1** for more information on CREM staff's reliance on external consultants.)

CREM's proper review and oversight of markups and additional charges are critical to ensuring project costs remain within budget, comply with contractual requirements, and reflect fair and reasonable pricing. If there is any uncertainty about the interpretation and application of contract clauses and the appropriateness of charges, CREM should seek City Legal Services' advice. Where necessary, going forward, CREM should improve the clarity of the standard clauses and related schedules attached to the construction agreements the Division uses.

**Recommendation:**

4. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, in consultation with the City Solicitor, to:
  - a. Review the change orders for contracts where potential overcharges for markups and other charges were identified during the audit and take appropriate steps to recover the funds or secure credits, where possible
  - b. Review change orders for all current capital projects (and recently completed capital projects, prioritized based on risk) to confirm contract terms for markups and other charges are correctly applied and pursue recovery or credits of any charges that are not in accordance with contract terms, where possible
  - c. Standardize and clarify the contract language included in CREM project-specific schedules attached to the City's standard construction agreement and ensure staff's consistent understanding of the applicability and calculation of markups and other additional fees and charges related to a change; and, where applicable, provide feedback on potential improvements to the City's standard clauses for consideration as part of the City-wide review of construction agreement templates.

**B. Reinforcing Roles and Accountabilities for Change Order Review and Approval**

**B. 1. CREM Relies Heavily on External Consultants Reviews**

**Limited evidence that CREM reviews change orders**

CREM project managers advised that they rely significantly on external consultants' reviews and recommendations when approving change orders. Consequently, we found very limited evidence that project managers independently review change orders to ensure they comply with contract terms.

**Consultant responsibilities can be more clearly defined in contracts**

We reviewed the consultant contracts for eight capital projects and found that the provisions defining the consultants' roles and responsibilities are high-level and general. Specifically:

- The contracts do not always clearly define CREM's expectations for the consultant's required level of oversight or responsibilities in reviewing and recommending change orders for City approval. For example, contracts often do not explicitly require consultants to verify that general contractors apply contract terms correctly, including markup and additional fee provisions. **Section A.3** describes findings related to the incorrect application of markups and additional fees.
- The contracts do not always specify documentation standards and outline what records or evidence the consultants must provide to the City to demonstrate that they properly reviewed change orders and supporting documentation. As noted in **Section A.1**, CREM's current internal policy and procedures also do not specify these requirements.

Where contracts do not clearly set out the consultants' responsibilities (e.g., depth of review, cost validation requirements), CREM staff and consultants may not have an appropriate and consistent understanding of the consultants' roles and responsibilities.

**CREM project managers need to perform their own independent due diligence**

While external consultants provide technical expertise and play a key role in administering the project, they are not accountable for the City's financial decisions. CREM staff cannot rely solely on the consultants' recommendations. CREM project managers should perform independent due diligence on change orders, especially on costs, risks, and contract and policy compliance. It is important to reinforce to CREM project managers the importance of their role in oversight and their ultimate accountability for the change order process and proper application of contract requirements.

**Recommendations:**

5. **City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to ensure CREM staff and external consultants have an appropriate and consistent understanding of the consultants' roles and responsibilities for reviewing and recommending change orders for City approval, including:**
  - a. **Assessing the reasonableness of change order pricing**
  - b. **Documentation standards and record retention requirements**
  - c. **Verifying general contractor compliance with City contract terms**

6. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to reduce overreliance on external consultants and to update policies and procedures and provide training, to reinforce CREM project managers' understanding of the importance of fulfilling their oversight responsibilities and overall accountability for reviewing, approving and administering change orders.

## **B. 2. Reviews and Approvals by CREM and Consultants Are Not Always Properly Obtained and Documented**

### **Change orders and change directives were not always properly approved**

Change orders and change directives should be approved in a timely manner. Delays or missing approvals can result in unauthorized work, overpayments, or noncompliance with the contract. During the audit, we identified change orders and change directives that were approved late or did not include required approvals. Specifically:

- 8 of 13 (62 per cent) change directives where actual costs exceeded the established limits without documented justification.

For example, one change directive relating to contaminated soil was capped at \$300,000, but the final approved change order for the actual work completed was over \$1.7 million. There was no supporting documentation or subsequent change directives authorizing the contractor to proceed with work that exceeded the established limit.

Additionally, for this change directive the City could potentially have saved approximately \$112,000 on the cost of soil removal above contracted estimates, had it negotiated to pay based on the contractor's actual cost plus markup rather than agreeing to pay a higher contracted unit price plus an additional markup on the contracted unit price.

- 6 of 105 (6 per cent) change orders were approved by the project manager after the work had already started (with delays in approval ranging from 144 to 588 days)
- 7 of 105 (7 per cent) change orders (valued between \$6,000 and \$397,000) were missing the required secondary management approval in addition to the project manager's approval

- 4 of 105 (4 per cent) change orders (valued up to \$53,000) were missing the general contractor approval. When a change order is not signed by all parties, there is no contractual agreement between parties on the cost and schedule impacts

**Limited evidence of the nature and extent of consultant and CREM project manager reviews of change orders**

While signatures on the change orders indicate approval, the signature on its own does not demonstrate that a change order was thoroughly reviewed. Many of the change orders we reviewed, had very limited evidence in the project file of the nature and extent of the consultant and CREM project manager reviews (e.g., there were no email confirmations, comments, or notes indicating review or analyses of pricing or scope).

In a few examples, where we saw evidence of consultant reviews, the consultant raised that the change orders were priced higher than expected and indicated factors and risks that might have impacted pricing; however, there were no notes in the file to explain why, after receiving the consultant’s advice, the City accepted the higher cost.

Given the limited documentation provided by CREM project managers to support the change orders, we cannot verify or confirm whether change orders were thoroughly reviewed by CREM project managers and the external consultants. As noted in **Section A.1**, the current internal policy and procedures do not specify documentation requirements to evidence change order reviews.

**Better documentation needed to support change orders**

Our review also identified deficiencies in the supporting documentation and records retained by CREM, including missing supporting documentation for change orders, mathematical errors, insufficient breakdown of costs, and inaccurate change order logs. In addition, we noted change orders where there were unresolved matters related to schedule impacts. For example:

- 28 of 105 (27 per cent) change orders did not include a sufficient supporting cost breakdown (e.g., labour, material, equipment, and markup), limiting the ability to assess the reasonableness of pricing and verify compliance with contract terms
- 13 of 23 (57 per cent) change orders (totalling nearly \$3 million) approved on one project show that “*The contract time is increased by Nil working days*” but also referenced a non-standard contract clause deferring resolution of the schedule impact until an unspecified later time. More than half of the change orders on this project (over 230 change orders totalling over \$7.9 million), contain this reference. Schedule impacts that are left unresolved on change orders, may increase the risk of claims.

- 37 of 105 (35 per cent) change orders did not include required supporting documents, such as Request for Information, Contemplated Change Orders/Notices, which can weaken the City's position in case of disputes or claims
- 42 of 105 (40 per cent) change orders in the change order logs had discrepancies, including mismatched dates and missing entries, limiting CREM's ability to effectively track and monitor change order activity

**Strengthening reviews will provide better oversight and compliance with contract**

To ensure proper oversight and compliance with contract terms, CREM should strengthen project manager and consultant reviews and ensure timely approvals and accurate records are maintained. (Refer to **Section B.3.** for recommendation).

### **B. 3. CREM Does Not Consistently Obtain Documentation Confirming Work Completion Before Payment**

**Site inspections and reviews to confirm work was completed are not always documented**

As detailed in **Section A.1**, CREM has no formal policies or procedures outlining the types of evidence CREM project managers must obtain and review to confirm that work related to change orders is complete, or what documentation must be retained before paying the general contractor.

CREM project managers indicated that verification of completed work is generally performed during site visits by either the external consultant or the CREM project manager; however, these assessments are not consistently documented.

**Sufficient documentation to confirm progress is not always retained in the City's project files**

As part of our review of payments to the general contractor, we noted that some project files did not contain sufficient documentation to confirm the progress or completion of change order work prior to approving payment. While verification may have been performed, it was not always evident from the documentation available in the project files. Specifically:

- 5 of 23 (22 per cent) payments totalling over \$1.6 million had no clear evidence, such as photos or site meeting notes, showing that the change order work was verified before payment approval
- 3 of 23 (13 per cent) payments, where the payment certificate was not signed by the consultant.

**Approving payments before verifying work is complete increases the risk of overpayment**

Approving payments before verifying that the work related to change orders is complete increases the risk of overpaying for incomplete or unsatisfactory work.

**Recommendation:**

7. **City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to ensure:**
  - a. **Change orders are appropriately reviewed and records demonstrating the nature and extent of reviews of the reasonableness and appropriateness of change orders (including pricing, scope, and schedule impacts) are retained in the City's project files**
  - b. **Change orders and change directives are appropriately approved, in accordance with signing authority and financial thresholds, before beginning work**
  - c. **Contractor invoices and supporting documentation are reviewed and confirmed by CREM project managers to comply with contract terms and related policies and procedures, before payment is approved and released.**

**B. 4. CREM Needs to Establish a Consistent Approach for Managing Change Orders Resulting from Design Errors and Omissions**

Design errors can occur when the original contract design contains deficiencies, inaccuracies, or omissions, resulting in additional work that was not included in the contract's original scope. When this occurs, these additional work items are addressed through change orders.

**CREM does not consistently track change orders resulting from design errors and omissions**

CREM project managers confirmed that 28 of the 105 (27 per cent) change orders in our sample, totaling approximately \$3 million, were attributed to design errors and omissions. However, this required follow up inquiries with the project managers, as this information was not captured directly in the change order or change order log. Instead, these changes were categorized as being due to other causes such as general coordination, unforeseen site conditions, or owner requests. This makes it difficult to determine the actual number of change orders resulting from design errors or omissions, as they may be recorded under other categories and potential recoveries may not be identified and collected.

**No formal policies and procedures to address potential cost recovery**

The Division does not have formal policies and procedures to address change orders related to design errors and omissions, including guidance on assessing and pursuing potential cost recovery. As a result, practices for managing cost recovery vary across projects:

**Inconsistent approach to managing change orders resulting from design errors and omissions**

- Some CREM project managers indicated change orders resulting from design errors are separately tracked to support potential cost recovery through settlement of claims.
- One CREM project manager indicated that there is no expectation to track and recover costs associated with change orders related to design errors and omissions.
- Another project manager noted that assessing recoverable amounts related to design errors and omissions can be complex, and that not all design errors and omissions can be recovered.
  - For the project they were managing, although no design errors or omissions were identified, the project manager indicated various changes or parts of them could be considered errors or omissions. However, at the time of their review and evaluation, it was difficult to credibly prove that an error or omission had occurred without undertaking an independent assessment through a third-party consultant.

**Overlap in external consultant responsibilities for both project design and change order review creates a potential conflict of interest**

On most projects, the external consultant responsible for project design is also responsible for reviewing change orders and making recommendations for their approval. This creates a potential conflict of interest, as the same consultant is involved in both preparing the design and determining whether a change order is required, including identifying the underlying reasons for the change. CREM management indicated that this arrangement aligns with industry practice. However, as described in **Section B.1**, CREM project managers' heavy reliance on the consultants may impact CREM's ability to independently determine whether a change order resulted from design errors or omissions. As a result, the City may face greater difficulty trying to recover costs related to the design errors and omissions from the consultant.

Implementing clear guidelines for identifying and tracking change orders related to design errors and omissions can help CREM mitigate risks related to the external consultants' potential conflict of interest. Enhancing CREM project managers' oversight of consultant reviews and implementing a consistent approach to determining change order causes will better support successful claims and recovery of costs related to design errors and omissions.

**Recommendation:**

8. City Council request the Executive Director, Corporate Real Estate Management Division, to establish a formal and consistent process for identifying, documenting, and managing change orders resulting from design errors and omissions. This process should include:
  - a. Requiring the use of standardized categories to identify the reasons for change orders (including design errors and omissions) and consistently tracking design errors and omissions across projects
  - b. Establishing procedures for assessing additional costs arising from design errors and omissions
  - c. Defining when and how to pursue claims and cost recovery from the external consultant, including required documentation, considering the cost and benefit of pursuing such claims.

## C. Improving Performance Through Ongoing Monitoring, Evaluation, and a Stronger Project Management System

### C. 1. Consultant and Contractor Performance Evaluations Are Not Consistently Completed or Used for Future Contract Awards

City has a supplier performance evaluation policy

The Purchasing and Materials Management Division (PMMD) has implemented a corporate policy outlining mandatory requirements for supplier performance evaluations. The performance evaluation process exists to help City staff evaluate suppliers performing work on City projects and to provide suppliers with clear expectations regarding their performance. Performance evaluations also serve as a record of a supplier's historical performance and may inform future procurement decisions, including pre-qualification processes and temporary suspensions from bidding.

Required performance evaluations were not always completed

For the CREM projects we reviewed, project managers did not consistently complete the required performance evaluations. In particular, we found:

- In all seven projects that reached substantial performance, project managers did not complete the final evaluations for both the general contractors and consultants
- Seven of eight projects where project managers did not complete many of the required interim evaluations for general contractors
- Seven of eight projects where project managers did not complete the required interim evaluations for consultants

**Interim performance results were not consistently documented and communicated to general contractors**

Where interim performance evaluations for general contractors were completed, project files did not consistently demonstrate that the general contractors were informed of unsatisfactory performance. In most cases, CREM project managers did not issue warning letters when required and documentation did not always show that evaluation results were communicated to general contractors. **Figure 4** provides an example of a performance evaluation identifying areas of unsatisfactory performance where a warning letter was not issued and the performance continued to be unsatisfactory.

**Unsatisfactory performance leading to contract termination did not prevent the award of other contracts to the same general contractor**

Although some CREM project managers indicated that they experience ongoing performance issues with general contractors, this was not always formally documented through performance evaluations. For example,

- On one project, no evaluations for the contractor were completed even though the project manager advised us there were performance issues
- On another project, an interim contractor performance review resulted in an unsatisfactory rating. The CREM project manager communicated deficiencies to the contractor. However, a follow-up evaluation was not conducted to assess whether the contractor's performance improved. The contract was later terminated. During the period between the unsatisfactory evaluation and the contract termination, CREM awarded this contractor two additional projects valued at approximately \$11.5 million.

Figure 4: Example of Contractor Evaluation with Areas of Unsatisfactory Performance

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2. Did the contractor participate in resolving project problems and display initiative to implement solutions?																																																																																																																																																																																																																																																																									
3. Did the contractor demonstrate accountability for problems for which they were responsible?																																																																																																																																																																																																																																																																									
4. Did the contractor submit accurate, complete invoices in a timely manner?																																																																																																																																																																																																																																																																									
5. Did the contractor provide competitive change order pricing?																																																																																																																																																																																																																																																																									
6. Did the contractor accept responsibility for the full scope and extent of the contract?																																																																																																																																																																																																																																																																									
7. Did the contractor coordinate to minimize disruption to the public and City operations?																																																																																																																																																																																																																																																																									
		<b>2.38</b>		Total Score (weighted)																																																																																																																																																																																																																																																																					

**Legend for Ranking:**

U - Unsatisfactory  
I - Improvement Needed

ME - Meets Expectations  
EE - Exceeds Expectations

EX - Exceptional Performance  
N/A - Not Applicable

**Supplier performance evaluations must be consistently completed for past performance to be considered when awarding future contracts**

Management indicated that CREM project managers are not motivated to complete performance evaluations because PMMD provides limited follow up, and evaluation ratings are not considered when awarding future construction contracts, which are typically awarded through a lowest cost compliant bid process.

Opportunities exist to improve procurement processes by considering past performance, but this can only be achieved if divisions consistently complete evaluations and communicate the results to suppliers and PMMD.

**Recommendation:**

- 9. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, in consultation with the Chief Procurement Officer and City Solicitor, to:**
  - a. Ensure that CREM project managers consistently complete the mandatory performance evaluations for general contractors and consultants**
  - b. Ensure that CREM project managers monitor general contractors and consultants to confirm they take corrective actions in response to areas where performance does not meet expectations. This includes communicating issues, reviewing progress and documenting whether the issues persist or are resolved**
  - c. Ensure that the performance evaluations are reviewed and used for performance management purposes, and to explore opportunities to incorporate evaluation results into future bid evaluations.**

**C. 2. CREM Quality Assurance Reviews are Limited in Scope**

**CREM-PMO QA review process does not include in-progress projects or follow-up monitoring**

CREM-PMO performs quality assurance (QA) reviews on completed project files. However, these reviews are not generally performed on in-progress files. While the QA review findings are provided to the CREM project manager, there is no monitoring or follow up process to track whether corrective actions are taken. Although project managers do not receive targeted training or guidance based on the QA review results, CREM recently provided training to staff following the 2025 update to the change order process.

**QA review scope should be expanded to evaluate change orders**

The QA file audit checklist is designed to confirm whether some of the required documents are on file. The review does not assess the quality, appropriateness, or accuracy of critical project decisions. Furthermore, it does not include reviewing change orders and evaluating how effectively CREM project managers oversee, review, approve and document change orders. Specifically, the QA review does not evaluate:

- Whether change orders were necessary or avoidable (e.g., work should have been included in the original contract)
- The reasonableness or accuracy of contractor and subcontractor pricing
- The correct application of markups and additional charges and the mathematical accuracy of calculations
- Whether schedule impacts were properly assessed and justified
- Whether approvals were obtained in a timely manner and supporting documentation was complete (e.g., Request for Information, Contemplated Change Order/Notice)
- Whether subcontractors used by the general contractors are approved by the City

**CREM-QARM completed a review of change orders in 2024**

In 2024, CREM's Quality Assurance and Risk Management (CREM-QARM) team also completed a review that included change orders in response to the Auditor General's 2023 report on the City's Modular Housing Initiative.<sup>10</sup> The CREM-QARM review informed changes to change order processes and additional training that were implemented by the Division in late 2025. CREM-QARM has not yet conducted any further reviews of change orders to monitor compliance with the recently implemented process changes.

**CREM should enhance QA processes to improve oversight**

CREM's existing QA reviews of capital projects should be improved to include an expanded scope and more frequent reviews to verify that changes are properly reviewed, approved, documented, justified, and comply with the contract terms.

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<sup>10</sup> [Auditor General's 2023 Report, "City of Toronto's Modular Housing Initiative: The Need to Balance Fast Delivery with Stronger"](#)

**Recommendation:**

10. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to strengthen the quality assurance process for both complete and active projects and to include a focus on capital project change orders by:
  - a. Establishing the scope and frequency of quality assurance reviews related to change orders
  - b. Ensuring quality assurance reviews examine a sample of change orders to verify that CREM project managers have obtained, reviewed, and retained sufficient supporting documentation to confirm that changes were necessary and justified; that costs, schedule impacts, and markups or other fees are reasonable and in accordance with contract terms; and that all required approvals and supporting documentation were obtained in a timely manner
  - c. For a selection of general contractors, confirming directly with subcontractors that the amount on change orders matches the subcontractors' quotes or actual charges invoiced to the general contractor, where possible.

**C. 3. CREM Does Not Have a Centralized Capital Project Management System**

**Change orders are not centrally tracked across projects**

CREM does not have a centralized system to track change orders. As a result, the Division was unable to readily produce summary reports or a comprehensive list of change orders across all projects, including the total number and value of change orders by project.

Change orders are currently tracked manually and managed at the project level by individual project managers, who are responsible for recording and maintaining change order information in project specific change order logs. This decentralized approach has resulted in inconsistent tracking and incomplete or inaccurate records across projects.

**Lack of centralized change order data limits CREM's ability to analyze trends**

The lack of detailed centralized change order data, including information on their root causes, limits CREM's ability to analyze trends and identify opportunities to improve change order management for individual projects and across the Division.

For example, if CREM could analyze change order data across multiple projects to identify recurring issues (e.g., frequent change orders related to unforeseen site conditions), management could determine the value of taking additional action (such as more detailed pre-construction investigations or enhancing design review processes) to avoid future cost increases and schedule delays.

**KPIs are needed to better monitor change orders across all projects**

While CREM has key performance indicators (KPIs) related to other project management processes (e.g., meeting project milestones within certain timelines; ensuring appropriate design approvals), there are no KPIs related to change orders. Specifically, there are no KPIs to manage change orders, monitor compliance with contract requirements, policies and procedures, or track consultant and general contractor performance. The following are areas where change order related KPIs will help CREM track trends, identify improvement areas, and support informed decision making for future projects:

- Cost and schedule impact (total value of change orders, value as percentage of contract, overruns, delays due to change orders)
- Volume and drivers (total number of change orders, percentage of change order categorized by root cause)
- Process efficiency (timeliness of approvals)
- Compliance (number of contract non-compliance incidents identified, documentation completeness)
- Consultant and general contractor performance (performance trends by supplier)

**CREM is planning to implement a new system to improve management of capital projects**

Management advised that they are in the final stages of procuring an enterprise Project and Portfolio Management System (PPMS) to support the effective planning, delivery, and oversight of capital and client projects and programs.

Management also advised that the system is expected to enable standardized project and portfolio management practices, automated approvals and workflows, program oversight, dashboards, robust reporting and financial management capabilities across the project lifecycle. The expected implementation date is Q1 2027.

Implementing a fully integrated system, including tracking and managing change orders, will enable the Division to monitor projects more effectively and provide management meaningful information to deliver future projects.

**Recommendation:**

- 11. City Council request the Executive Director, Corporate Real Estate Management (CREM) Division to:**
  - a. Expedite implementing a centralized system to track and record key documentation and data for capital projects, including all change orders**
  - b. Ensure the use of standardized categories to identify and track the root causes of change orders**
  - c. Establish and implement key performance indicators (KPIs) for change order management to support consistent monitoring and oversight of compliance with internal procedures and contractual requirements**
  - d. Create standardized reports for management to monitor change orders and related KPIs, including volume, value, reasons and trends across all CREM-managed capital projects.**

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# Conclusion

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CREM is responsible for delivering capital projects and providing oversight and project management expertise to ensure projects are completed on time and within the approved budget.

Our audit identifies opportunities to improve how CREM monitors and oversees change order management processes and verifies that change orders for capital projects (and the associated cost and schedule impacts) are properly justified, appropriately reviewed and approved.

Policies and procedures must be improved to reinforce CREM project managers' accountability and responsibilities when reviewing and approving change orders and addressing inconsistencies arising from different practices across capital projects. Strengthening these processes will also improve the Division's oversight of consultants and contractors involved in reviewing and administering change orders.

Furthermore, CREM should clearly define external consultants' expected roles and responsibilities to ensure both parties consistently understand their responsibilities. While consultants play an important role in administering the projects, CREM project managers should not rely solely on consultant reviews. CREM remains ultimately responsible to ensure reasonableness of pricing and that contract terms are applied correctly and consistently.

Quality assurance processes should be enhanced to include change order reviews to ensure they meet standards for compliance, accuracy and timeliness. In addition, implementing a centralized project management system will improve how CREM monitors and oversees change orders.

**11 recommendations to improve CREM change orders management process**

The 11 recommendations in this report will enable CREM to ensure that change orders are properly justified, accurately documented, approved in a timely manner, comply with contract terms and are managed within project budget and schedule. Work on certain matters arising from this audit is ongoing and may be reported upon separately in the future.

**Thank you to management and staff**

We would like to express our sincere appreciation for the co-operation and assistance we received during our audit from CREM management and staff.

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## Audit Objectives, Scope and Methodology

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<b>Audit included in the 2025 Work Plan</b>	The Auditor General's <a href="#">2025 Work Plan</a> included a review of the Corporate Real Estate Management (CREM) Division's oversight and management of capital projects.
<b>Audit objective</b>	The objective of this audit was to assess whether CREM sufficiently monitors and oversees capital project change orders, ensuring that change orders (and the associated cost and schedule impacts) are properly justified and appropriately reviewed and approved.
<b>Audit scope</b>	The scope of the audit covered a sample of capital projects delivered by CREM that were in-progress or completed between January 2024 and February 2025.
<b>Areas not covered within the scope of this audit</b>	This audit excluded modular housing capital projects, which were covered in the Auditor General's 2023 audit report, <a href="#">City of Toronto's Modular Housing Initiative: The Need to Balance Fast Delivery with Stronger Management of Contracts and Costs</a> . This audit also did not review projects where the general contractor was suspended since they were covered under the scope of a forensic investigation contracted by CREM. This audit also did not review CREM broader capital project and construction management policies and activities unrelated to change orders.
<b>Audit methodology</b>	<p>Our audit methodology included:</p> <ul style="list-style-type: none"><li>• Reviewing CREM operational policies and procedures, relevant guidelines, and assurance reports</li><li>• Interviewing CREM project managers and other staff</li><li>• Analyzing CREM budget and related information for in-progress and completed capital projects from January 2024 to February 2025</li><li>• Selecting eight projects for review based on identified risks, and for these projects:<ul style="list-style-type: none"><li>○ Reviewing relevant general contractor and consultant contracts</li><li>○ Reviewing and analyzing a judgemental sample of 105 change orders (selected based on cost, reason for change, and weighted by the number of change orders on a project), and reviewing related supporting</li></ul></li></ul>

documentation to assess the design, implementation and operating effectiveness of key controls (i.e., external consultant and CREM project manager review and approval of change orders and supporting documentation) to confirm appropriateness of change orders

- Reviewing a judgemental sample of 23 progress payments for higher cost change orders, or where change orders were not sufficiently detailed, to assess the design, implementation and operating effectiveness of key controls (i.e., external consultant and CREM project manager review and approval of payments and supporting documentation) to confirm work completion before making payments
  - Requesting and reviewing information from 24 subcontractors<sup>11</sup> for a sample of 52 invoices to directly confirm the amounts invoiced to the general contractor. We reviewed information from the 20 subcontractors that responded back.<sup>12</sup>
  - Reviewing contractor and consultant performance evaluations for compliance with Purchasing & Materials Management Division policies
- Conducting other procedures that were deemed relevant

## **Limitations**

Our findings and conclusions were based on the information and data available at the time of the audit. Our review of change orders and related supporting documentation was limited to records retained in manual logs and/or information provided by project managers and did not include an assessment of processes to obtain client division approval of change orders. CREM logs were found to be incomplete and, in some instances, contained inaccurate information, which affected the reliability of this data. However, these limitations did not impact our conclusion on the overall audit objective.

## **Further investigation by CREM on certain matters identified during the audit**

At the completion of the audit, there were matters requiring further investigation by CREM that may be reported on separately in the future. Therefore, our findings and conclusions are based on the information available at the time the audit was completed.

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<sup>11</sup> One subcontractor was selected twice, as they worked on two different capital projects under two different general contractors.

<sup>12</sup> In three of four cases where we received no response, the subcontractor was no longer in business. In one case, the subcontractor did not respond to numerous requests.

**Compliance with generally accepted government auditing standards**

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.

## Exhibit 1: Glossary

*(Prepared by the Auditor General's Office)*

**Change Directive** – An order to the contractor to proceed with a change in the work, prior to or in the absence of the City and the contractor agreeing upon adjustments in the contract price and the contract time. The change directive is used to keep the project moving forward. A subsequent change order with cost and schedule impacts is issued once the work has commenced.

**Change Order** – Written amendments to the contract, typically used for contingencies, change in the work, extra work, additional work, and obtaining credit for deleted scope.

**Contemplated Change Notice/Order** – Used to convey the requested change to the general contractors to obtain a price and schedule impact prior to proceeding with any work. Work may not necessarily be approved to proceed.

**Contingency Allowance** – A budgetary allowance intended to cover cost increases for the project.

**Date of Substantial Performance** – The date the project achieved substantial completion, which has specific requirements set out in the Construction Act, including the project being ready for use.

**General Contractor**– Contractor procured to complete the construction of the project.

**Lump-sum** – A single, pre-determined fixed price for work performed, regardless of the contractor's actual costs.

**Markup** – A compensation to the contractor for any and all overhead, profit, incidental and administrative costs related to the change.

**Payment Certificate** (often called a Certificate for Payment) – A formal document issued by the payment certifier—typically the external consultant—confirming the amount the owner should pay the contractor for work completed to date.

**Progress Payment** – Payment to a vendor, typically made on a monthly basis, for work performed to date, in accordance with the contract.

**Request for Change** - Used by project owners for changes to the design and/or scope or work subsequent to initial design and scope of work approval.

**Request for Information** - Used by contractors to clarify ambiguities, resolve missing information, or address conflicts in project documents, drawings, or specifications.

**Site/Supplemental Instruction** – Issued by the consultant to the general contractor for changes or clarifications to work that has no cost or schedule impact.

**Time and Material** – Where work is performed and paid based on actual reasonable costs as directly paid by the general contractor. The general contractor is expected to prepare and maintain complete and accurate daily work records for any time and material changes.

## Appendix 1: Management’s Response to the Auditor General’s Report Entitled: “Audit of Corporate Real Estate Management: Strengthening Accountability and Oversight of Change Orders in Capital Projects”

**Recommendation 1:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to improve and formalize the Division’s change order policies and procedures to ensure they are comprehensive, clear and consistently applied across all capital projects and aligned with contract terms. At a minimum, the procedures should:

- a. Establish CREM staff and management approval authorities and financial thresholds for review and approval of change orders, including requirements for escalation to senior management where necessary
- b. Specify documentation requirements for CREM staff for change orders, including justification for the change, cost and schedule impact, cost breakdown, and evidence of review and approval by required parties
- c. Specify documentation requirements for CREM staff confirming that markups and additional fees and charges included in change orders are applied in accordance with the contract
- d. Specify review requirements for CREM staff for contractor invoices, including verification that the related work is completed in accordance with the contract terms before payment is authorized and released
- e. Set expectations for CREM staff for completing and communicating consultant and contractor performance evaluations and following up to make sure appropriate corrective actions are taken in areas where consultants and contractors do not meet expectations.

<p><b>Management Response:</b> <input checked="" type="checkbox"/> Agree    <input type="checkbox"/> Disagree</p>
<p>Comments/Action Plan/Time Frame:</p> <p><b>a)</b> Corporate Real Estate Management (CREM) plans to establish limits of authority based on functional positions in which Project Manager to Division Head will sign off on change orders based on CREM approved Signing Authorities (Project Manager, Manager, Project Director/Director, Executive Director to be included)</p> <p><b>b)</b> CREM appreciates the Auditor General’s recommendation and agrees with the importance of having clear, comprehensive, and consistently applied change order procedures across all capital projects. Documentation for all change orders, including justification, cost breakdown, schedule impact, and evidence of required reviews and approvals will be retained.</p> <p>It is important to note that the Auditor General’s review focused on a period prior to the Division’s full overhaul of its change management processes. Since 2023, CREM has undertaken significant business process modernization efforts, including a complete redesign of the change order workflow, development of standardized documentation, and implementation of enhanced controls. As of October 2025, all staff have been trained on the new process to ensure consistent application.</p> <p>In addition to the redesigned workflow, CREM has strengthened oversight and quality controls through ongoing internal Quality Assurance and Risk Management (QARM) reviews and</p>

compliance assessments and establishing an additional resource dedicated to internal reviews,

**c/d)** These measures help ensure documentation, approvals, and cost validations are completed in alignment with contractual requirements and corporate expectations as part of the review/validation and sign off for all invoicing prior to processing.

**e)** CREM to request opportunities for improvement with PMMD to obtain information regarding vendor performance and overall scoring.

CREM appreciates the recommendation and will conduct a review of the current procedures to determine where further enhancements can be incorporated. This will include evaluating opportunities to strengthen clarity around approval authorities and thresholds, documentation expectations, validation of markups and fees, invoice review requirements, and performance evaluation processes for consultants and contractors. CREM remains committed to continuous improvement and ensuring our processes remain robust, transparent, and aligned with best practices.

In addition, CREM has scheduled an internal review of a adequate sample of change orders from Q4 2026 to verify that the newly implemented change management process is being applied effectively and consistently across the Division.

In addition to business process improvements, CREM is in the process of implementing a new technology solution, the Portfolio and Project Management System (PPMS) in 2026. We will use the results of the internal review in Q4 2026, combined with the onboarding of the PPMS, as an opportunity to conduct an additional review of our change management process. This review will focus on alignment with the new system requirements, the findings of the internal assessment, and the Auditor General's recommendations. This work will be completed by Q2 2027, followed by full staff training, both to refresh existing change management process, as well as any updated processes and system requirements by Q3 2027.

This timeline is required to allow for the full implementation and stabilization of the PPMS, integration of new workflow capabilities, and incorporation of internal review findings into future process refinements.

**Action Plan and Time Frame:**

1. **PMO Controls and Governance Internal Review (Q4 2026):**  
The PMO Controls and Governance team will conduct an internal review of change orders to verify compliance with new processes established and implemented in 2025.
2. **PPMS Implementation (Q1 2027)**
3. **Change Management process review (Q2 2027):**  
CREM will conduct an additional review of its change management process in Q2 2027, incorporating the results of the internal review completed in Q4 2026, PPMS onboarding requirements, and all applicable recommendations from the Auditor General.
4. **Staff Training (Q3 2027):**  
Full staff training on change management process implemented in October 2025 ,  
Additional Training Following Process Enhancements (Q3 2027)

**Recommendation 2:** City Council request the Executive Director, Corporate Real Estate Management Division, to provide training for project managers when the capital project policy and procedures are implemented or updated, and when quality assurance reviews indicate the need for supplementary refresher training, to ensure consistent understanding and application of change order requirements across all capital projects.

<p><b>Management Response:</b> <input checked="" type="checkbox"/> Agree    <input type="checkbox"/> Disagree</p>
<p>Comments/Action Plan/Time Frame:</p> <p>CREM currently deliver training on the updated and implemented change control process. All project management staff were trained as of October 2025. Training will continue to be refreshed at regular intervals, and new staff receive this training as part of the standardized onboarding process.</p> <p>CREM is committed to providing further training to all staff once the process enhancements arising from the 2026 internal review, the onboarding of the new PPMS system, and the Auditor General’s recommendations have been completed.</p> <p>This training will be mandatory for all staff involved in project delivery and change management. Delivering this training in <b>Q3 2027</b> ensures that staff receive instruction on the fully updated, system aligned procedures after the PPMS implementation is complete and the integrated process review has been finalized.</p> <p><b>Action plan and Time frame:</b></p> <ol style="list-style-type: none"> <li><b>Staff Training (Q3 2027):</b> Full staff training on change management process implemented in October 2025 Additional Training Following Process Enhancements, incorporating Auditor General recommendations (Q3 2027)</li> </ol>

**Recommendation 3:** City Council request the City Manager, in consultation with the Chief Procurement Officer, City Solicitor, and relevant Division Heads, to review contract structures, procurement practices, legal risks, and vendor relationships and consider adopting a consistent City-wide approach for directly accessing and reviewing subcontractor records, to enhance oversight of change orders and address risks related to contractor overbilling and/or irregularities in change order documentation.

<p><b>Management Response:</b> <input checked="" type="checkbox"/> Agree    <input type="checkbox"/> Disagree</p>
<p>Comments/Action Plan/Time Frame:</p> <p>CREM will work in partnership with the City Manager, City Solicitor, and Chief Procurement Officer, and will collaborate with other relevant divisions to support this recommendation. This work will include reviewing existing contract structures, strengthening contractual provisions where feasible, and enhancing internal governance to improve oversight and vendor management. These efforts will also focus on increasing transparency and improving access to subcontractor records. Engineering &amp; Construction Services (ECS) is the owner of the City’s standard construction agreement and is currently undertaking a comprehensive review as part of the Council directed <i>Enhancing Capital Construction Design</i> project, which includes an examination of change order provisions. CREM will participate in and support this broader, corporate-wide review to help ensure</p>

alignment with improved change management and oversight practices. Working with PMMD, CREM will also explore enhancing the vendor evaluation process to include vendor change order management practices where appropriate and feasible.

In parallel, CREM is already advancing several initiatives to strengthen oversight of the change management process. These initiatives include refreshed staff training on the change order management process scheduled for April 2026, an internal review of current change orders by the end of 2026, and implementation of the Project Portfolio Management System (PPMS). Following these actions, CREM will undertake a broader end-to-end review of the change management process and coordinate additional training to all appropriate City divisions to embed enhanced controls and best practices across the corporation.

**Action Plan and Time Frame:**

**1. PMO Controls and Governance – Internal Review (Q4 2026)**

The PMO Controls and Governance team will conduct an internal review of CREM change orders to verify compliance with the updated processes established and implemented in 2025.

**2. PPMS Implementation (Q1 2027)**

Implementation of the new PPMS system will be completed, supporting standardized tracking and oversight of change management activities.

**3. Change Management Process Review (Q2 2027)**

CREM will conduct a comprehensive review of its change management process, incorporating the results of the Q4 2026 internal review, PPMS onboarding requirements, and applicable recommendations from the Auditor General.

**4. Staff Training (Q3 2027)**

Upon completion of the review and implementation of contractual changes, CREM will collaborate with PMMD, the City Solicitor’s office, and other relevant divisions to develop and deliver a phased training schedule aligned with the timelines and operational requirements of all participating divisions.

**Recommendation 4:** City Council request the Executive Director, Corporate Real Estate Management Division (CREM), in consultation with the City Solicitor, to:

- a. Review the change orders for contracts where potential overcharges for markups and other charges were identified during the audit and take appropriate steps to recover the funds or secure credits, where possible
- b. Review change orders for all current capital projects (and recently completed capital projects, prioritized based on risk) to confirm contract terms for markups and other charges are correctly applied and pursue recovery or credits of any charges that are not in accordance with contract terms, where possible
- c. Standardize and clarify the contract language included in CREM project-specific schedules attached to the City’s standard construction agreement and ensure staff’s consistent understanding of the applicability and calculation of markups and other additional fees and charges related to a change; and, where applicable, provide feedback on potential improvements to the City’s standard clauses for consideration as part of the City-wide review of construction agreement templates.

Management Response:  Agree  Disagree

Comments/Action Plan/Time Frame:

a) CREM agrees with the intent of strengthening oversight of change orders and ensuring that project costs are applied in accordance with contractual obligations. CREM's role includes reviewing change orders to confirm compliance with approved contract terms, including applicable markups and additional charges. To support improved oversight, CREM is enhancing staff training on relevant contractual clauses to promote clearer understanding and more consistent application across projects. Where potential overcharges related to markups or other fees have been identified through the audit, CREM will undertake targeted reviews of the applicable change orders and, where appropriate and feasible, pursue recovery of funds or secure credits in accordance with contract provisions and legal advice.

b) CREM will review change orders associated with the contracts identified in the audit where potential overcharges may have occurred. In addition, CREM will undertake a broader review of change orders for current capital projects and recently completed projects, prioritized based on risk. This review will focus on confirming that contract terms related to markups and other charges have been correctly applied. Where charges are determined not to be in accordance with contract provisions, CREM will pursue recovery or credits where possible and appropriate. To further strengthen internal controls and oversight, CREM has recently created a new Supervisor position dedicated to supporting enhanced internal review of contract administration practices, including change order review and compliance monitoring. This role will help ensure greater consistency, accountability, and staff adherence to established processes.

c) CREM agrees with the importance of clear and consistent contract language related to markups and additional charges. CREM notes that consultant roles, responsibilities, and fee structures are currently defined within project-specific schedules (Schedule A – Services) attached to the City's standard construction agreement, and these schedules are completed as part of the consultant engagement process at the project level. As such, many responsibilities are established through these schedules rather than within the core legal contract template.

As Engineering & Construction Services (ECS) is the owner of the City's standard construction agreement and is already undertaking a comprehensive review as part of its Council-directed *Enhancing Capital Construction Design* project, which includes examination of change order provisions. CREM will participate in and support this broader review.

As part of **Recommendation 1**, CREM is reviewing existing processes to strengthen and clarify roles and responsibilities for all parties involved in project delivery, including consultants, contract administrators, and CREM staff. This review will inform opportunities to better standardize language within project-specific schedules and improve staff's consistent understanding of the applicability and calculation of markups and other charges related to change orders.

**Action Plan and Time Frame:**

**1. Reinforcing Roles, Responsibilities, and Accountabilities (April 2026)**

CREM will use an already scheduled full day Project Management session in April 2026 to reinforce key roles, responsibilities, and accountability expectations related to change order oversight. This topic will be incorporated into the agenda and discussed with all Project Managers to ensure clarity on their obligations in reviewing, approving, and administering change orders, as well as expectations for appropriately leveraging consultants

2. **PMO Controls and Governance Internal Review (Q4 2026):**  
The PMO Controls and Governance team will conduct an internal review of change orders to verify compliance with new processes established and implemented in 2025.
3. **PPMS Implementation (Q1 2027)**  
Implementation of the new PPMS system will be completed, supporting standardized tracking and oversight of change management activities.
4. **Change Management process review (Q2 2027):**  
CREM will conduct an additional review of its change management process in Q2 2027, incorporating the results of the internal review completed in Q4 2026, PPMS onboarding requirements, and all applicable recommendations from the Auditor General.
5. **Staff Training (Q3 2027)**  
Upon completion of the review and implementation of contractual changes. CREM will collaborate with PMMD, the City Solicitor’s office, and other relevant divisions to develop and deliver a phased training schedule aligned with the timelines and operational requirements of all participating divisions.

**Recommendation 5:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to ensure CREM staff and external consultants have an appropriate and consistent understanding of the consultants’ roles and responsibilities for reviewing and recommending change orders for City approval, including:

- a. Assessing the reasonableness of change order pricing
- b. Documentation standards and record retention requirements
- c. Verifying general contractor compliance with City contract terms.

**Management Response:**  Agree     Disagree

Comments/Action Plan/Time Frame:

CREM agrees with the intent of clarifying consultant roles and responsibilities related to change order review. However, CREM notes that items (a), (b), and (c) identified in the recommendation are already addressed within the consultant’s scope of work through **Schedule A – Services**, which each Division is required to complete as part of the consultant engagement process. These responsibilities are defined at the project level rather than embedded within the core legal terms of the consultant contract template.

Many of the issues identified in the audit relate to contract administration practices rather than deficiencies in the consultant contract template itself. To strengthen oversight, CREM is enhancing staff training to improve understanding of contractual requirements, promote consistent application of the change order process, and reduce overreliance on consultants or contract administrators. CREM staff must maintain closer visibility into project activities to ensure effective and appropriate oversight.

As part of **Recommendation 1**, CREM is conducting a review of the current process to strengthen and clearly define roles and responsibilities for all parties. In addition, CREM will implement the Project Portfolio Management System (PPMS), which will enhance and automate project oversight, improve documentation management, and promote greater transparency and visibility across projects.

**Action plan and Time frame:**

1. **Reinforcing Roles, Responsibilities, and Accountabilities (April 2026)**  
CREM will use an already scheduled full day Project Management session in April 2026 to reinforce key roles, responsibilities, and accountability expectations related to change order oversight. This topic will be incorporated into the agenda and discussed with all Project Managers to ensure clarity on their obligations in reviewing, approving, and administering change orders, as well as expectations for appropriately leveraging consultants
2. **PPMS Implementation (Q1 2027)**  
Implementation of the new PPMS system will be completed, supporting standardized tracking and oversight of change management activities.
3. **Change Management process review (Q2 2027):**  
CREM will conduct an additional review of its change management process in Q2 2027, incorporating the results of the internal review completed in Q4 2026, PPMS onboarding requirements, and all applicable recommendations from the Auditor General.
4. **Staff Training (Q3 2027):**  
Full staff training on change management process implemented in October 2025, Additional Training Following Process Enhancements (Q3 2027)

**Recommendation 6:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to reduce overreliance on external consultants and to update policies and procedures and provide training, to reinforce CREM project managers' understanding of the importance of fulfilling their oversight responsibilities and overall accountability for reviewing, approving and administering change orders.

**Management Response:**  Agree     Disagree

Comments/Action Plan/Time Frame:

Corporate Real Estate Management (CREM) acknowledges and agrees with this recommendation. The Division recognizes the importance of ongoing efforts to ensure that project managers fully understand their oversight responsibilities and maintain accountability for reviewing, approving, and administering change orders.

To address this, CREM will reinforce staff training on roles and responsibilities, with a specific focus on change order governance, oversight expectations, and accountability requirements. These actions will strengthen internal capacity, support consistent application of CREM's change management processes, and enhance overall project governance and control which will be reflected in playbook processes and procedures. To be amended in 2026.

**Action plan and Time frame:**

1. **Reinforcing Roles, Responsibilities, and Accountabilities (April 2026)**  
CREM will use an already scheduled full day Project Management session in April 2026 to reinforce key roles, responsibilities, and accountability expectations related to change order oversight. This topic will be incorporated into the agenda and discussed with all Project Managers to ensure clarity on their obligations in reviewing, approving, and administering change orders, as well as expectations for appropriately leveraging consultants
2. **Staff Training (Q3 2027):**  
Additional Training Following Process Enhancements (Q3 2027)

**Recommendation 7:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to ensure:

- a. Change orders are appropriately reviewed and records demonstrating the nature and extent of reviews of the reasonableness and appropriateness of change orders (including pricing, scope, and schedule impacts) are retained in the City’s project files
- b. Change orders and change directives are appropriately approved, in accordance with signing authority and financial thresholds, before beginning work
- c. Contractor invoices and supporting documentation are reviewed and confirmed by CREM project managers to comply with contract terms and related policies and procedures, before payment is approved and released.

<b>Management Response:</b> <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  Corporate Real Estate Management (CREM) acknowledges the importance of maintaining strong internal controls, robust documentation, and strict adherence to the City’s delegated signing authorities. We recognize that enhancements to our backup documentation practices—as well as clearer documentation of the rationale supporting review and approval decisions—will be required. These improvements are already being incorporated into our ongoing process refinements and system modernization efforts. With the implementation of the PPMS by Q1 2027
<b>a. Review and Documentation of Change Orders</b> As part of our continuous improvement efforts, we will enhance the consistency of our review records to clearly demonstrate the assessment of scope, pricing, and schedule impacts. This work aligns with ongoing updates to our processes under the CREM-PMO and refresh training on a semi-annual basis
<b>b. Approvals in Accordance with Levels of Authority (LOA)</b> We continue to follow the City’s Level of Authority (LOA) framework for all contract amendments and change approvals. As part of the PPMS (Portfolio, Project Management System) implementation, these approval controls will transition from manual signatures to automated workflow-driven approvals. This will strengthen compliance, improve timeliness, and increase transparency.
<b>c. Review of Contractor Invoices and Supporting Documentation</b> CREM-PMO project managers currently review contractor invoices and supporting materials to verify alignment with contract terms prior to recommending payment. As we implement PPMS, we will enhance tracking, documentation, and oversight to ensure invoice reviews are consistently documented and integrated into the system’s approval workflows.
Overall, the implementation of PPMS will significantly improve our ability to track reviews, automate approval routing, and maintain comprehensive documentation across all project phases.
<b><u>Action plan and Time frame:</u></b>
1. <b>PPMS Implementation (Q1 2027)</b> Implementation of the new PPMS system will be completed, supporting standardized tracking and oversight of change management activities.

**Recommendation 8:** City Council request the Executive Director, Corporate Real Estate Management Division, to establish a formal and consistent process for identifying, documenting, and managing change orders resulting from design errors and omissions. This process should include:

- a. Requiring the use of standardized categories to identify the reasons for change orders (including design errors and omissions) and consistently tracking design errors and omissions across projects
- b. Establishing procedures for assessing additional costs arising from design errors and omissions
- c. Defining when and how to pursue claims and cost recovery from the external consultant, including required documentation, considering the cost and benefit of pursuing such claims.

<b>Management Response:</b> <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  Corporate Real Estate Management (CREM) agrees that strengthening the consistency and formality of processes related to identifying, documenting, and managing change orders arising from design errors and omissions will enhance oversight and accountability.  Historically, the consultant team holds significant responsibility for reviewing, validating, and categorizing change orders. As a result, CREM’s ability to independently track and trend these categories across projects was limited. We acknowledge that a more robust owner driven tracking approach is needed—one that exists outside the consultant’s responsibilities or visibility—so that CREM can more accurately identify, document, and monitor these situations.  As part of our dispute resolution practices, CREM can and has pursued cost recovery from consultants in the past for errors and omissions when appropriate. Several such claims have resulted in successful recovery of costs. Building on that experience, CREM will strengthen its frameworks to ensure consistency and clarity in determining when such claims should be initiated.  <b><u>Action plan and Time frame:</u></b> 1. <b>Standardized Categorization</b> (Items a, b and c) As part of the broader review and enhancement of CREM’s change management control process, CREM will implement standardized categories to clearly identify the reasons for all change orders—including those arising from design errors and omissions—and ensure consistent documentation and tracking across all CREM projects. Where applicable, CREM will also estimate the cost impacts associated with these types of change orders. In instances where design errors or omissions result in additional project costs, CREM will follow the established dispute resolution process and, when appropriate in consultation with City Solicitor, initiate claims to recover those costs from the consultant. Q2 2027

**Recommendation 9:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, in consultation with the Chief Procurement Officer and City Solicitor, to:

- a. Ensure that CREM project managers consistently complete the mandatory performance evaluations for general contractors and consultants
- b. Ensure that CREM project managers monitor general contractors and consultants to confirm they take corrective actions in response to areas where performance does not meet expectations. This includes communicating issues, reviewing progress and documenting whether the issues persist or are resolved
- c. Ensure that the performance evaluations are reviewed and used for performance management purposes, and to explore opportunities to incorporate evaluation results into future bid evaluations.

<b>Management Response:</b> <input checked="" type="checkbox"/> <b>Agree</b> <input type="checkbox"/> <b>Disagree</b>
Comments/Action Plan/Time Frame:  <p><b>a, b)</b> CREM agrees that consistent completion, monitoring, and use of contractor and consultant performance evaluations are important components of project oversight. CREM will undertake a review of its Project Delivery staff Key Performance Indicators (KPIs) targets to reinforce the importance of completing the Supplier Performance Evaluation process consistently, accurately, and within the required timelines. This review will focus on ensuring that performance data is captured in a standardized manner and that expectations around timely completion are clearly understood and consistently applied across the team. CREM will work with Purchasing and Materials Management Division (PMMD) to align this approach with the corporate Supplier Performance Evaluation standard. PMMD will also provide support, including any required training, to ensure consistent and sustainable application.</p> <p><b>c)</b> Following a 12-month period of collecting reliable and consistent performance data, CREM will engage with the Purchasing and Materials Management Division to jointly review the outcomes. This collaboration will focus on analyzing performance trends, identifying strengths and areas for improvement, and aligning on how the information can be meaningfully leveraged within the procurement lifecycle. The intent of this coordinated effort is to ensure that validated performance data can be used to inform future procurement strategies, including bidder evaluations and tendering processes, where appropriate. These measures are intended to enhance transparency, strengthen accountability, and support more informed, evidence-based decision-making for future bids.</p> <p><b>Action plan and Time frame:</b></p> <ol style="list-style-type: none"><li>1. PMMD will deliver a refresh training on supplier performance evaluation process – <b>April 2026</b></li><li>2. CREM and PMMD will jointly review the collected data and outcomes focusing on analyzing supplier performance and continue improvements on the process. <b>Q3 2027</b></li></ol>

**Recommendation 10:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division, to strengthen the quality assurance process for both complete and active projects and to include a focus on capital project change orders by:

- a. Establishing the scope and frequency of quality assurance reviews related to change orders
- b. Ensuring quality assurance reviews examine a sample of change orders to verify that CREM project managers have obtained, reviewed, and retained sufficient supporting documentation to confirm that changes were necessary and justified; that costs, schedule impacts, and markups or other fees are reasonable and in accordance with contract terms; and that all required approvals and supporting documentation were obtained in a timely manner
- c. For a selection of general contractors, confirming directly with subcontractors that the amount on change orders matches the subcontractors' quotes or actual charges invoiced to the general contractor, where possible.

<b>Management Response:</b> <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  <p><b>a,b,c)</b> CREM agrees with the importance of ensuring strong oversight and verification related to change orders. As previously communicated under Recommendation 1, CREM implemented updated change management processes in 2025 and provided training to all project managers to ensure consistent application of these requirements. In alignment with this work, CREM has already scheduled a formal review of the current change order process for Q4 2026. The purpose of this review is to assess project manager compliance with the updated procedures and to verify that the new control expectations are being consistently followed across all projects. Following this initial assessment, subsequent reviews will be conducted annually as part of the CREM-PMO Controls and Governance team and CREM- QRAM team's internal review of capital projects, ensuring ongoing compliance and continuous improvement in change management controls.</p> <p><b>Action plan and Time frame:</b></p> <ul style="list-style-type: none"><li>1. Review to be completed by <b>Q4 2026</b></li><li>2. Subsequent reviews on a yearly basis</li></ul>

**Recommendation 11:** City Council request the Executive Director, Corporate Real Estate Management (CREM) Division to:

- a. Expedite implementing a centralized system to track and record key documentation and data for capital projects, including all change orders
- b. Ensure the use of standardized categories to identify and track the root causes of change orders
- c. Establish and implement key performance indicators (KPIs) for change order management to support consistent monitoring and oversight of compliance with internal procedures and contractual requirements
- d. Create standardized reports for management to monitor change orders and related KPIs, including volume, value, reasons and trends across all CREM-managed capital projects.

**Management Response:**  Agree  Disagree

Comments/Action Plan/Time Frame:

**a,b,c,)** CREM is in the process of implementing a centralized Project Portfolio Management System (PPMS), which is scheduled to be fully onboarded by **Q1 2027**. Once implemented, this system will provide automated tracking and recording of all key project documentation and data, including change orders and supporting documentations. Standardized categorization for root-cause identification will be embedded within the system configuration, ensuring consistency and improved transparency across all CREM-managed capital projects.

**d)** CREM- PMO currently maintains KPIs related to compliance with PMO processes for Project Managers and Managers involved in project delivery. As part of our continuous improvement approach, CREM- PMO will evaluate enhancements to these KPIs to establish more targeted metrics specific to change order management. This will support strengthened monitoring and oversight of adherence to internal procedures and contractual requirements.

Finally, CREM will leverage the new PPMS capabilities to develop standardized reporting for management that includes change order volumes, values, reasons, and trend analysis across the project portfolio.

**Action plan and Time frame:**

1. **PPMS Implementation (Q1 2027)**  
Implementation of the new PPMS system will be completed, supporting standardized tracking and oversight of change management activities.
2. **KPIs Q2 2026** (active for the 2026 Goals and & objectives)

**AUDITOR  
GENERAL**  

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**TORONTO**

