



**Audit Report
Construction Change Orders
Follow-Up
January 23, 2019**

**City Auditor's Office
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Purpose and Scope

This report follows up the February 2016 audit report which addressed the City's management of change orders and contingency balances for construction projects. The objective of the follow-up was to determine the status of planned actions in response to Audit Recommendations.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

This report is intended for the use of the City Manager's Office, City Council, and all City Departments.

Conclusion – January 2019

Nearly three years have passed since the four departments responsible for construction acknowledged the need to manage change orders and contingency balances Citywide in a manner that promotes consistent practice. However, their lack of progress to establish a best practices framework continues to expose the City to potential unnecessary costs.

Audit Results – January 2019

Policy changes initiated during the FY 2016 audit have not been implemented and incorporated into the Citywide Policy for Procurement of Design and Construction Services (EPM 1), as stated in the response to the original audit report. More recently, E&PM stated that written guidance for construction change orders was better suited in a separate process manual. E&PM staff have drafted a "Best Practice Manual for Construction and AES" that will be distributed Citywide. The Contracts Officers Community of Practice (COCOP) plans to finalize the best practice manual and circulate for approval, with anticipated ratification by March 2019.

Although Citywide guidance has not been issued, individual departments have taken various measures to improve controls over change orders. For example, Charlotte Water has established new policies and procedures related to change orders and now requires Engineers Joint Contract Documents Committee (EJCDC) language in all contracts. Charlotte Water and Aviation have recently implemented e-Builder to capture

documentation and communication related to change orders. Despite these changes, a survey of department representatives indicated that significant and consistent policy changes have not been incorporated into construction contracts.

- Internal Audit will conduct risk assessment and identify selected projects, contracts or departments for additional review and continue to monitor the City's progress in implementing the previous recommendations.

Conclusion – Original (February 2016)

Four City departments' independent approaches to construction have led to inconsistent change order management, exposing the City to potential unnecessary costs. The City could benefit from a policy to establish a best practices framework to guide a consistent construction change order process. Such a framework would reduce the risk of excessive contingencies and out-of-range overhead and profit rates.

Summary of Recommendations – Original (February 2016)

1. A City-wide policy should guide all departments' approach to negotiating and pricing change orders and work change directives.
2. The disclosure of contingency balances should be consistent and transparent.
3. Specific terms should be included within contracts to establish the basis for pricing additional work and to establish the right to examine change order pricing data.
4. Change order pricing review guidance should be established for City-wide consistency.
5. City departments should utilize independent cost estimates and records of negotiations to justify the reasonableness of change order pricing.

Construction Department Responses – Original (January 2016)

The four construction departments have reviewed and provided comments to Internal Audit regarding the Construction – Change Orders Audit Report. We acknowledge the need to manage change orders and contingency balances Citywide in a manner that promotes consistent practices. Throughout the development of the report's earliest drafts, the construction departments have worked with Internal Audit to explain our procedures and policies. While we accept the findings of the report and intend to work cooperatively to establish best Citywide practices in accordance with the report's recommendations, we seek to establish those practices keeping in mind the diverse nature of each department's construction activities and the federal, state, and local policies and procedures that govern each type of construction activity.

Our primary focus is to work through the Contract Officers Community of Practices (COCOP) and selected construction management staff from each department to develop and implement the report recommendations. We seek to incorporate the recommendations into the Citywide Policy for Procurement of Design and Construction Services (EPM 1). Each department will be responsible for implementing all activities with the understanding that some activities, such as changing language within current and future construction contracts, will take time to complete. Additionally, federal and state regulations require compliance with appropriate granting authority, for example, the Charlotte Area Transit system has established processes mandated by the Federal Transit Administration for construction projects. One of the COCOP team's first priorities is to develop a plan and estimated date for incorporation of recommendations.

Internal Audit recommended five (5) areas in the Construction – Change Orders Audit Report that need to be addressed by COCOP and its respective members. The proposed schedule below addresses anticipated timeframes for COCOP to develop best practices in the five (5) areas recommended (grouped as three below) by Internal Audit.

Internal Audit Recommendation	Anticipated Completion
Contingency – establishing and disclosure of balances	February 2016
Change order pricing, negotiations, pricing review, and independent cost estimates	April 2016
Consistent change order terms incorporated into contracts	May 2016