



**Mecklenburg County  
Department of Internal Audit**

Asset and Facility Management  
Construction Contract Management Audit  
Report 2161

September 21, 2022

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**Internal Audit's Mission**

To support key stakeholders in cultivating an environment of accountability, transparency, and good governance.

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**Acknowledgements**

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**Obtaining Copies of  
Internal Audit Reports**

This report can be found in electronic format at  
<https://www.mecknc.gov/audit/reports/pages/default.aspx>



MECKLENBURG COUNTY  
Department of Internal Audit

**To:** Mark Hahn, Director  
Asset and Facility Management

**From:** Terry Thompson, Director  
Department of Internal Audit

**Date:** September 21, 2022

**Subject:** Asset and Facility Management Construction Contract Management Audit Report 2161

The Department of Internal Audit has completed an audit of the Asset and Facility Management Construction Contract Management process to determine whether internal controls effectively manage key business risks inherent to this activity. Internal Audit interviewed key personnel, reviewed and evaluated policies, procedures, and other documents, and tested various construction contract management activities from July 1, 2017 through June 30, 2021. Internal Audit did not observe any construction operations.

This audit was conducted in conformance with The Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing. These 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.

**OVERALL EVALUATION**

Overall, key risks inherent to the construction contract management process were managed to an acceptable level; however, opportunities exist to improve the design and operation of some control activities.

## RISK OBSERVATION SUMMARY

The table below summarizes the risk observations identified during the audit, grouped by the associated risk factor, and defined in Appendix A. The criticality or significance of each risk factor, as well as Internal Audit’s assessment of the design and operation of key controls to effectively mitigate the risks, are indicated by the color codes described in Appendix B.

RISK OBSERVATION SUMMARY			
Risk Factors and Observations	Criticality	Design	Operation
1. Policies and Procedures Risk	●	●	●
1.1 Formal Documentation			
2. Human Resource Risk	●	●	●
2.1 Annual Training			
2.2 Licensure			
3. Fraud Risk	●	●	●
No risk observations noted			
4. Compliance Risk	●	●	●
No risk observations noted			
5. Segregation of Duties Risk	●	●	●
No risk observations noted			
6. Authorization Risk	●	●	●
No risk observations noted			
7. Communication Risk	●	●	●
No risk observations noted			
8. Contract Management Risk	●	●	●
No risk observations noted			
9. Vendor Management Risk	●	●	●
No risk observations noted			
10. Documentation Risk	●	●	●
No risk observations noted			
11. Performance Measurement Risk	●	●	●
No risk observations noted			

The risk observations and management's risk mitigation strategies defined in Appendix C are discussed in detail in the attached document. Internal Audit will conduct a follow-up review to verify management's action plans have been implemented and are working as expected.

We appreciate the cooperation you and your staff provided during this audit. Please feel free to contact me at 980-314-2889 if you have any questions or concerns.

- c: County Manager
- Deputy County Managers
- County Attorney
- Deputy County Attorney
- Board of County Commissioners
- Audit Review Committee

## BACKGROUND

The Department of Asset and Facility Management (AFM) manages Mecklenburg County's property inventory from acquisition to the disposition of real property. AFM's Design and Construction Project Management division is responsible for facilities master planning, space management, furniture management, move management and capital projects management, managing an average of over 100 projects annually.

### Contract Management Process

Contract Lifecycle Management is a systematic process designed to manage the creation, execution, and analysis of contracts to maximize operational and financial performance and minimize risk.

Figure 1: Contract Lifecycle Phases



The pre-award phase includes activities such as solicitation and procurement planning for the requesting County department. During this phase AFM's Design and Construction Project Management division team, in collaboration with design consultants, prepares and presents a bidding package to interested bidders. The award phase includes vendor selection, during which the County awards a contract defining each party's rights and responsibilities. The post-award phase includes contract administration activities, such as monitoring progress of work, reviewing payments, preparing contract amendments, project completion, and delivery to the end-user.

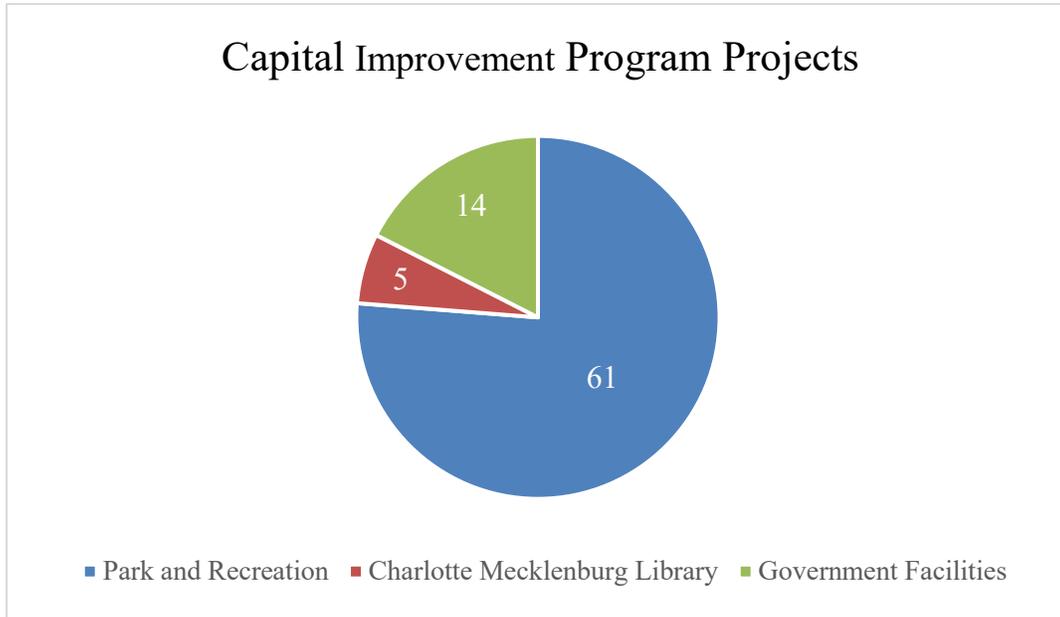
### Capital Improvement Program

Mecklenburg County is a growing and thriving community with a population of more than one million people and rising, which creates increasing demand for schools, parks and public services. To address these increasing needs, the County budgeted approximately \$1.75 billion to fund these projects and improvements in the FY2019-FY2023 Capital Improvement Program (CIP).

The CIP funds a range of the County's projects, including creating new Community Resource Centers (CRCs), expanding its park and greenway system, and building a new main library. Additionally, the County has the responsibility of funding capital projects for Charlotte-Mecklenburg Schools (CMS), Central Piedmont Community College (CPCC), and the Charlotte-Mecklenburg Library.

As part of the multiple services, it provides to support County agencies in carrying out their business functions, AFM manages the construction of CIP projects for various government facilities, Park and Recreation, and the Charlotte Mecklenburg Library.

During the audit scope period, AFM managed 80 CIP projects with a budget of approximately \$669M. Overall, 58% of the projects were completed. The following chart shows the distribution of these 80 CIP projects managed by AFM as of January 21, 2021.



*Source: Asset and Facility Management provided data, unaudited*

### **Professional Training**

AFM project managers are licensed architects and landscape architects who oversee various design and construction projects. As part of their onboarding, project managers attend a multi-day construction management training course at University of North Carolina (UNC) Chapel Hill’s School of Government, which covers North Carolina General Statutes for procuring and managing construction services. Licensed individuals are required to complete continuing education courses annually to remain in good standing with the licensure board.

**COUNTY MANAGER’S OVERALL RESPONSE**

The County Manager concurs with all risk mitigation strategies and timeframes for implementation.

**RISK OBSERVATIONS AND MITIGATION STRATEGIES**

Risk Factor	Criticality	Design	Operation
1. Policies and Procedures Risk	●	●	●

**Risk Observation**

1.1 Formal Documentation—The Department did not have documented policies and procedures for its construction contract management process. Yet, policies and procedures are important control activities to help ensure management’s directives are carried out while mitigating risks that may prevent the organization from achieving its objectives.

**Recommendation**

1.1 Internal Audit recommends management develop and implement formal construction contract management policies and procedures and train staff accordingly. The procedures should be comprehensive, consistent with applicable County policies, and include at a minimum:

- Key contract management activities including but not limited to contract monitoring and reporting, documentation of contract management actions and decisions, periodic contract reviews, contract closeout, contractor invoicing, document retention requirements, capital improvement management, and contract dispute resolution guidance
- Staff roles and responsibilities
- Staff training requirements and monitoring, e.g., annual training requirements for applicable State licensing board
- Frequency of policy and procedure reviews and updates
- Communication of policy and procedure updates
- Supervisory oversight and monitoring

**Management’s Response**

1.1 **Risk Mitigation Strategy:** Reduce **Implementation Date:** Complete policies & procedures manual by June 30, 2023

**Action Plan:** Develop a design & construction contract management policies and procedures manual and train Project Managers on use of the manual.



## APPENDIX A—Risk Factor Definitions

Risk Factor	Definition
Authorization Risk	Failure to clearly articulate and communicate those who have authority to commit the organization may result in internal and external misunderstandings.
Communication Risk	Failure to foster consistent and effective communication between AFM staff, contractors and other key stakeholders may result in misunderstandings in project expectations and / or delays in the timely completion of the project.
Compliance Risk	Failure to comply with established policies, procedures, and/or statutory requirements may result in unacceptable performance that impacts financial, operational, or customer objectives.
Contract Management Risk	Failure to have adequate processes in place to efficiently manage contracts may result in vendor performance that does not meet the contract agreements potentially impacting financial, operational, or strategic objectives.
Documentation Risk	Failure to adequately collect, file, and retain key documentation may result in lack of accountability and / or evidence of inspection information and support.
Fraud Risk	Failure of employees, vendors, or other parties to carry out their activities in compliance with the law and ethics standards of the organization may result in fraud.
Human Resources Risk	Failure to attract, train, develop, deploy, and/or empower competent personnel may inhibit the organization's ability to execute, manage, and monitor key business activities.
Performance Measurement Risk	Failure to have defined metrics and the ability to gather relevant information for measurement purpose may impair management's ability to monitor individual, team, and/or overall business performance.
Policies and Procedures Risk	Failure to have formal, documented, clearly stated, and updated policies and procedures may result in poorly executed processes and/or increased operating costs.
Segregation of Duties Risk	Failure to adequately segregate duties may allow an employee or group of employees to perpetrate and conceal errors or irregularities without timely detection.
Vendor Management Risk	Failure to appropriately validate the qualifications and manage relationships with third parties (including general contractors, subs, and suppliers) may result in conflicts that could significantly impact the effective completion of the project.

### APPENDIX B—Color Code Definitions

The criticality of a risk factor represents the level of potential exposure to the organization and/or to the achievement of process-level objectives before consideration of any controls in place (inherent risk).

Criticality	Significance and Priority of Action
	The inherent risk poses or could pose a significant level of exposure to the organization and/or to the achievement of process level objectives. Therefore, management should take immediate action to address risk observations related to this risk factor.
	The inherent risk poses or could pose a moderate level of exposure to the organization and/or to the achievement of process level objectives. Therefore, management should take prompt action to address risk observations related to this risk factor.
	The inherent risk poses or could pose a minimal level of exposure to the organization and/or to the achievement of process level objectives. Risk observations related to this risk factor, however, may provide opportunities to further reduce the risk to a more desirable level.

The assessment of the design and operation of key controls indicates Internal Audit’s judgment of the process and system design to mitigate risks to an acceptable level.

Assessment	Design of Key Controls	Operation of Key Controls
	The process and system design do not appear to be adequate to manage the risk to an acceptable level.	The operation of the process’ risk management capabilities is not consistently effective to manage the risk to an acceptable level.
	The process and system design appear to be adequate to manage the risk to an acceptable level. Failure to consistently perform key risk management activities may, however, result in some exposure even if other tasks are completed as designed.	The operation of the process’ risk management capabilities is only partially sufficient to manage the risk to an acceptable level.
	The process and system design appear to be adequate to manage the risk to an acceptable level.	The operation of the process’ risk management capabilities appears to be sufficient to manage the risk to an acceptable level.

**APPENDIX C—Risk Mitigation Strategy Definitions**

<b>Risk Mitigation Strategy</b>	<b>Definition</b>
Reduce	Risk response where actions are taken to reduce a risk or its consequences.
Accept	Risk response where no action is taken to affect the risk.
Transfer	Risk response where a portion of the risk is transferred to other parties.
Avoid	Risk response to eliminate the risk by avoiding or withdrawing from the activity giving rise to the risk.