

City of Miami

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September 25, 2020

Honorable Members of the City Commission
City of Miami
3500 Pan American Drive
Coconut Grove, FL 33133-5504

Re: Review of the Building Department's Internal Controls
Report No. 20-12

Executive Summary

We have completed a review of the Building Department's internal controls over permit processing and other areas. The review was performed in conjunction with our investigation into allegations of irregularities in the permitting process for a deck repair in the backyard of the residence of the former City Manager (CM) of the City of Miami (City). The investigative report has not yet been finalized and issued. This review disclosed that the Building Department's internal controls over permit processing could be improved to ensure better accountability, efficiency, and transparency, as follows:

- 1) Require property record searches to identify non-permitted structures.
- 2) Eliminate inconsistencies for survey requirements.
- 3) Improve permit documentation requirements in ProjectDox.
- 4) Improve controls over user access to create and issue permits.
- 5) Integrate the four property record depositories into one depository to increase efficiency.
- 6) Provide building personnel with department policies and procedures and related training.

We wish to express our appreciation for the cooperation and courtesies extended to us by the Building Department and staff while conducting the review.

Sincerely,

A handwritten signature in cursive script that reads "Theodore P. Guba".

Theodore P. Guba, CPA, CIA, CFE
Independent Auditor General
Office of the Independent Auditor General

Cc: The Honorable Mayor Francis Suarez
Arthur Noriega, V., City Manager
Victoria Mendez, City Attorney
Todd Hannon, City Clerk
Sandra Bridgeman, Assistant City Manager/Chief Financial Officer
Fernando Casamayor, Assistant City Manager/Chief of Operations
Nzeribe Ihekwaba, Assistant City Manager/Chief of Infrastructure
Asael Marrero, Director, Building Department
Maurice Pons, Deputy Director, Building Department
Joseph Ruiz, Director, Zoning Department
Members of the Audit Advisory Committee
Audit Documentation File

Review conducted by: Raymond Ishmael, CPA, CFE, Senior Auditor

Work papers reviewed by: Mala Khilnani, CPA, CISA, Assistant to the Auditor General

REVIEW OF THE BUILDING DEPARTMENT’S INTERNAL CONTROLS

REPORT NO. 20-12

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SCOPE, OBJECTIVES, AND METHODOLOGY

The City Commission directed the Office of the Independent Auditor General to investigate allegations into the irregularities in the permitting process for a deck repair in the backyard of the residence of the former City Manager (CM) of the City of Miami (City). In order to gain an understanding of the permit process, in conjunction with our investigation, we performed a review of the Building Department's internal controls over permit processing.

The review primarily covered the period December 2019 through February 2020, and focused on the following objectives:

- To determine if internal controls over permit processing and other areas were established and effective.
- To recommend that the Building Department enhance or establish effective internal controls and processes where needed.

The review methodology included the following:

- Interviews and inquiries of appropriate personnel.
- Reviews of written policies and procedures in order to gain an understanding of the internal controls.
- Observations of current practices and processing techniques.
- Tests of applicable processes and records.
- Other review procedures as deemed necessary.

BACKGROUND

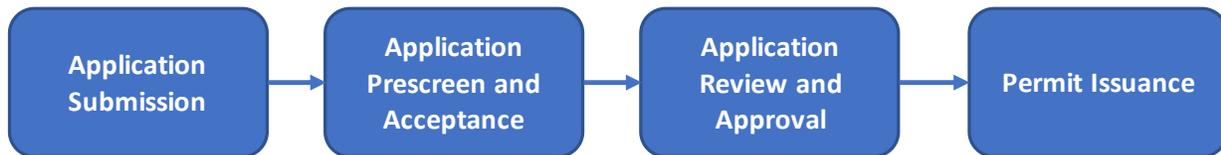
The Florida Building Code (FBC), provides that any owner or representative who intends to construct, enlarge, alter, repair, move, demolish, or change a structure, shall first submit an application to the building official and obtain the required permit. The City of Miami Building Department has developed a permitting process to ensure compliance with the FBC, Miami-Dade County (County) Building Code, and City Building Code.

Permitting Process

Building permit applications are classified based on various job categories, property types and job descriptions.

There are two computer programs that are used by the Building Department in the application process and they are collectively referred to as ePlan. The programs used are iBuild, which is a public interface, and ProjectDox, in which applicants can upload documents, but the documents are viewable only by employees. Both programs track and provide users with information relevant to the progress of submitted applications. Additionally, the Microfilm Department uses Laserfiche, which holds the City's historical property documents in electronic format. These documents are used to support applications in the permitting process.

Building permit applications are generally processed by the City based on the following process.



a) Application Submission

During December 2018, the Building Department implemented ePlan for Building applications and required supporting documents to be submitted online. However, in order to accommodate the transition to ePlan the Building Department continued to accept paper permit applications and supporting documents from residents at the Permit Counter.

Pursuant to the Building Department website and the Permit Processing Checklist, a repair requires a signed and sealed survey, not more than one (1) year old, along with signed and sealed plans depicting the full repair/remodel. However, the extent of the repair/remodel could determine the documents needed within the discretion of the Building Official, as codified in the FBC. For new construction and additions, permits applied for under Miami 21 Zoning Code would also require a current survey. The signed application and related documents can be uploaded by the applicant or by the Permit Processing group.

b) Application Prescreen and Acceptance

The Internal Quality Control group (IQC /Permitting Coordinators) ensures that the up-front fee is paid and reviews the application, drawings, and other supporting documents for completeness.

After accepting the application and support, the IQC group assigns reviewers based on the job scope of the application and the reviewer's respective disciplines which require approval. Once the reviewers are assigned, the IQC group transmits a notification to the reviewers through ePlan for a concurrent review.

c) *Application Review and Approval*

Applications can be reviewed by each discipline concurrently, since the application and accompanying required documents are contained in electronic format and stored in ePlan. Each assigned reviewer can begin their respective discipline review independent of other reviewers since the reviews are not contingent upon the approval of another discipline.

Each discipline review ensures that the application adheres to the requirements of the FBC, the County Building Code, and City Building Code as it relates to their discipline field.

It should also be noted that prior to reviewing a repair and remodeling permit application, it is best practice to check for the structure's initial compliance with permits, laws, and regulations in effect at the time the structure or building was constructed.

d) *Permit Issuance*

Once all disciplines have reviewed and approved the permit applications and related plans, the IQC group ensures that all approvals have been met, batch stamps the application, and approves the application for permit issuance. The final step in the permit application process prior to issuance, is to pull a permit, in which contractor information or Owner-builder qualifications (Owner-builder exam) is verified; payment for all plan rework fees is verified; and the balance of total permit fee is collected.

FINDINGS AND RECOMMENDATIONS

The review disclosed that the Building Department's internal controls over permit processing could be improved to ensure better accountability, efficiency, and transparency, as follows:

- 1) Require property record searches to identify non-permitted structures.
- 2) Eliminate inconsistencies for survey requirements.
- 3) Improve permit documentation requirements in ProjectDox.
- 4) Improve controls over user access to create and issue permits.
- 5) Integrate the four property record depositories into one depository to increase efficiency.
- 6) Provide building personnel with department policies and procedures and related training.

Details of our findings and recommendations follow:

FINDING 1: REQUIRE PROPERTY RECORD SEARCHES TO IDENTIFY NON-PERMITTED STRUCTURES

A City property record search or a current survey should be required to determine if any structure has been altered on a property without obtaining a permit, when new permits requesting changes to decks, fences, and sheds, etc. are submitted for approval. Based on our review, property records are not always utilized in the permit approval process for repairs, which could lead to issuing repair/remodeling permits for unsafe and unidentified illegal structures.

Our interviews with Building and Zoning Department personnel indicated that for repair and remodeling building permit applications, discretion may be used to determine if a current survey is required or if City property records should be compared to the permit application. No department is accountable to identify illegal or unsafe structures by reviewing surveys submitted or microfilm records related to building permit applications. We also found that that no mitigating controls have been implemented to ensure that repair and remodeling permits are issued for only permitted structures, and that no other illegal structures exist. Therefore, there is a risk that a repair permit could be issued for a structure that was not previously permitted or that other illegal structures on the property may not be identified. As a result, a repair/remodeling permit may be issued for an illegal structure and may be legalized upon final inspection without submitting the required documentation or fees.

RECOMMENDATION 1.1: Building Department

Building Department management should meet with Zoning Department management to determine which discipline is responsible to identify possible non-permitted structures.

- **Management Response:** The Building Department has met with the Zoning Department and are currently developing clear guidelines to identify possible non-permitted structures.
- **Implementation Date:** Fiscal Year 2020-21.

RECOMMENDATION 1.2: Building Department

To ensure repair and remodeling permits are only issued for permitted structures and illegal structures are identified, mitigating controls should be developed, such as property record searches or a current survey requirement.

- **Management Response:** The Building Department has met with Zoning, Planning and Resilience and Public Works to clearly identify when a survey is required. Existing checklists and references are currently being re-evaluated and updated. This effort should significantly improve and mitigate the efforts by the City of Miami to properly identify illegal structures.
- **Implementation Date:** Fiscal Year 2020-21.

FINDING 2: ELIMINATE INCONSISTENCES FOR SURVEY REQUIREMENTS

The Building Department website, which is available to and used by the public, provides that a “Signed sealed survey (no more than 1 year old), and signed and sealed plans depicting full remodeling work” are to be submitted with the application for a residential permit for remodeling of a single-family residential/duplex. It should be noted that the requirements apply to repair permits and remodeling permits since both are classified as “Remodeling/Repairs” in the iBuild system.

Additionally, the Permit Counter Group uses an ePlan Review Checklist for applications submitted in person. The Checklist has a section for “Required Documents” which lists a “Survey (no more than 12 months old)” followed by a space to designate “Yes”, “No”, or “N/A”, and a comment box for notes. The Checklist is uploaded to ProjectDox with all other documents submitted and is kept as a permanent record that the review was completed. We found that no similar checklist is used by the Internal Quality Control (IQC) group when an applicant submits their application and supporting documents electronically.

The survey requirement information provided to City residents through the website and the Checklist conflicts with the information that several Building department employees had verbally provided to us; specifically, that only a repair list is required for a repair permit.

RECOMMENDATION 2.1: Building Department

To eliminate the noted inconsistencies, we recommend that the Building Department review and update all publicly available information and guidance regarding the submittal of a survey to support permit applications.

- **Management Response:** The Building Department has initiated this effort to update all publicly available information and guidance regarding the submittal of a survey to support permit applications. Additionally, the Building Department is providing additional training for all Permit Coordinator staff on the survey requirements.
- **Implementation Date:** Fiscal Year 2020-21.

RECOMMENDATION 2.2: Building Department

We recommend that the Building Department utilize a checklist for all building permit applications submitted and include the checklist as a requirement of the IQC pre-screen process. If a new survey is not required, the reason should be documented in the comment section of the checklist form.

- **Management Response:** The Building Department, in collaboration with Zoning, Planning and Resilience and Public Works, are currently re-developing the existing checklist for the IQC pre-screen process. This checklist will also be uploaded and maintained for future record purposes for each ePlan project.
- **Implementation Date:** Fiscal Year 2020-21.

FINDING 3: IMPROVE PERMIT DOCUMENTATION REQUIREMENTS IN PROJECTDOX

As part of the building permit application process, discipline reviewers use ProjectDox to document required corrections requested of applicants in order to meet requirements to approve the permit. The reviewer required corrections are resolved by either waiving the correction or by requesting the applicant to submit additional documentation. While ProjectDox is useful in documenting reviewer required corrections, the comments can be revised leaving no evidence of the original comment made. Our review disclosed that reviewer comments were altered after additional documentation was received, which resulted in no trail of the original comment. Additionally, there is no field to indicate the reviewer's reason for either waiving the required correction or how the required correction was met.

ProjectDox also allows City permit processors to assign a priority level of 1 (high) to 3 (low) to Building Permit applications, which indicates to those processing and reviewing the application which applications to process first. Our review disclosed that once the discipline reviews have been completed and the application has been approved, the priority status is automatically deleted and there is no record of the assigned priority status. Also, there is no reason provided to assign the higher-level priority status. Therefore, an application may have been assigned a priority 1 status and expedited with no justification, while other applications are processed at a slower rate.

RECOMMENDATION 3.1: Building Department

We recommend that reviewer comments not be altered once documented. Additional fields should be added to document reasons for the final disposition of the reviewer's initial required corrections.

- **Management Response:** The Building Department has been informed by Avolve Software that in the next release of ProjectDox (version 9.2), the concept of reviewer comments is removed from the system and replaced with a response column feature that upon completion of the task the comments are locked down and not editable in subsequent cycles. This will become the default design for this feature. The reference to additional fields to document the final disposition compliance already exists in ProjectDox.

An additional enhancement to be completed with Avolve is to make this field mandatory to complete the review.

- **Implementation Date:** Fiscal Year 2020-21.

RECOMMENDATION 3.2: Building Department

We recommend that the priority status assigned to Building Permit applications be retained in ProjectDox and that documentation for the reason of the assigned priority status be retained.

- **Management Response:** The Building Department recognizes the importance of maintaining this information in ProjectDox for future reference. Avolve Software has indicated that this information is available in their database and will be developing a report to capture this detail after the completion of a workflow. The Building Department has established policy for assigning priority status. High Priority is reserved to Residential Properties, City Jobs and any other project at the discretion of administration (such as schools / hospitals / storm related projects / Fire damaged facilities, etc.). Medium is reserved for projects that experience processing delays related to the City or the Applicant. Low is applied to all other projects.
- **Implementation Date:** Fiscal Year 2020-21.

FINDING 4: IMPROVE CONTROLS OVER USER ACCESS TO CREATE AND ISSUE PERMITS

The Permit Counter Group has received training to create building permit applications by first issuing a permit application number (process number), and then creating a permit application with supporting documents. Subsequently, the information is transmitted to the IQC Group for review and then to the discipline reviewers for approval. After their approval, the final step in the process is to pull/issue the permit. At this point, the application reviewer ensures that the discipline review is complete, the IQC group has stamped the documents as approved, and all fees were paid. When an employee with incompatible job responsibilities is granted both iBuild user access to create an application and to pull/issue the final permit, there is a risk that errors could occur, since established oversight controls can be by-passed.

As summarized in the table below, we noted that 220 users have been granted access to create building permit applications and assign process numbers, and 126 users have been granted access to pull/issue permits.

iBuild User Accounts

Employment Status	Access		
	Create Building Applications	Pull/Issue Permit	Create and Pull/Issue Permit
Active Employees/Consultants	175	98	97
Deactivated City Directory Users (Former Employees/Consultants)	33	18	18
Not found in City Directory (Were not City Employees/Consultants)	12	10	10
Total Users	220	126	125

Also, there are 125 users with the incompatible job responsibilities to both create and pull/issue a building permit. As a result, permit applications can be created, accepted, and issued by employees who are not trained in the application process and documentation requirements. An IQC group member with dual access capabilities can create an application, prescreen the application, address reviewer’s requests with document uploads, batch stamp approvals for applications, and pull a permit for the applicant. By granting incompatible access controls over established processes, an employee could by-pass internal controls, which may result in an incomplete application packet, or a permit issued without proper documentation or review.

As summarized in the table below, user access in iBuild to create building permit applications and pull/issue permits has also been granted to various employees in other departments. If the access assigned is necessary, read-only access should only be granted to personnel in other departments based on their job responsibilities.

User with iBuild Access by Department

Department	Create Building Department Permits	Pull/Issue Permit
Building	98	75
Capital Improvements Program	31	31
City Clerk	1	1
Civil Service Board	1	-
Code Compliance	15	1
CRA - Midtown/Omni	1	-
Finance	1	1
Fire Department	25	1
Grants Administration	1	0
GSA	1	1
Department of Innovation and Technology	5	4
NET	1	-
Parks	1	-
Planning	7	-
Public Works	14	1
Solid Waste	1	-
Zoning	3	0
Not in City Active Directory	13	10
Total User	220	126

RECOMMENDATION 4.1: Building Department

To improve user access controls in iBuild, we recommend that the Building Department implement role-based access controls to limit permit application creation to trained employees in the Permit Counter group. Access to pull/issue a permit should only be assigned to those that have been properly trained to provide assurance that the ICQ group and discipline reviewers have completed their responsibilities in the permitting process. Additionally, we recommend that user access to create and pull/issue building permit applications be recertified on a periodic basis for all departments to ensure that an employee’s current job responsibilities align with the access provided.

- **Management Response:** The Building Department agrees with the above recommendation. Immediately after the day the Building Department was made aware of this issue actions were taken to purge and re-evaluate the user access controls in iBuild. The Building Department has been continuously updating the SOP to ensure all staff responsibilities properly align with the level of access provided as well as developing clear

policies for these user access assignments to be reviewed on a yearly basis. Additionally, the Building Department will revise/change roles and access when staff members are transferred to other divisions within the Department or to another Department.

- **Implementation Date:** Fiscal Year 2020-21.

FINDING 5: INTEGRATE THE FOUR PROPERTY RECORD DEPOSITORIES INTO ONE DEPOSITORY TO INCREASE EFFICENCY

The Microfilm group is responsible for all City property records, which can be requested by the general public and City employees. The primary software for the storage and retrieval of electronic property records is Laserfiche. However, when a Microfilm search is requested and performed, the Microfilm group reviews four separate depositories for property documents to ensure a complete search. As a result, inefficiencies have developed in the storage and retrieval of documents which has caused property records not to be readily available or accessible by the public, discipline reviewers, code compliance, and other City employees. The four record depositories are as follows:

- 1) Laserfiche – Electronic property records that have been scanned, imported, or recently created.
- 2) Scanned documents – Approximately six years ago a vendor was contracted to scan historical physical property documents. However, the files provided were not classified by property, address, or folio number, but by the box in which they were originally stored. Each box could contain property records for multiple properties. When a Microfilm request is made, these electronic files are searched and if related property documents are found, they are imported to the Laserfiche system. As a result, these electronic files have not been fully integrated with the Laserfiche system.
- 3) Film – Historically, property document files were maintained on microfilm. The Building department has not fully integrated these files into electronic format to import into Laserfiche. When a search is requested and performed, the Microfilm group reviews the physical film. If documents are not already included in Laserfiche, they will scan and import the information into the Laserfiche property file.
- 4) ProjectDox – Since the implementation of ePlan, permit applications and related supporting documents are scanned directly into ProjectDox. The Building department plans to integrate Laserfiche into ProjectDox as the main records depository.

Due to the need to review four record depositories, property searches take an average of 20 days to complete, according to the Microfilm group supervisor. Although permit reviewers, Code Compliance Officers, and Building Inspectors have access to the electronic property documents in Laserfiche, the property file may be incomplete, since the other property record depositories have not been integrated with Laserfiche. As a result, a City employee could make a judgement based on incomplete property documents, unless the request for documents was made directly to the Microfilm group.

RECOMMENDATION 5.1: Building Department

To increase efficiency and to ensure that City employees have complete property information when making decisions regarding a property or building permit, we recommend that the Building Department take steps to integrate all property records into one record depository.

- **Management Response:** The Building Department has been aggressively working towards the above-mentioned goal. The Building Department is actively working towards migrating all digital records into Laserfiche, the City of Miami official record keeping platform. Additionally, and to facilitate better record search, the Zoning Department, Planning Department, and Resilience & Public Works will have an internal workflow in ePlan to request property records when not readily available. Such request will also generate a new discipline in iBuild / ProjectDox to track the requested records.
- **Implementation Date:** Fiscal Year 2022-23 (Expected Completion date to digitize all film).

FINDING 6: PROVIDE BUILDING PERSONNEL WITH DEPARTMENTAL POLICES AND PROCEDURES AND RELATED TRAINING

Our review disclosed that Building Department employees may not be aware of the existence of departmental policies and procedures. According to the former Director, the Building Department did not have written finalized policies and procedures until September 2019. In January 2020, we requested policies and procedures from various employees, but they were unable provide us with a copy. The former Director was unsure if department employees were provided with the policies and procedures but stated that he would make them available by placing a copy on a shared drive. Written policies and procedures are ineffective if the department employees have not been made aware of their existence and training has not been provided.

RECOMMENDATION 6.1: Building Department

We recommend that the Building Department provide employees with the written policies and procedures. Department managers and supervisors should provide training for employees based on their work group and related responsibilities as described in the policies and procedures.

- **Management Response:** The Building Department officially released our updated Standard Operating Procedures (SOP) on February 3, 2020. The Building Department also designated the Quality Control Section with the responsibilities of developing yearly updates of the SOP as well as staff training. Since the initial SOP release, the Quality Control Section has rolled out one update and conducted more than 10 Training Sessions. It is also the intent of the Building Department to properly staff the Quality Control Section and ensure continued success in updating our SOPs and developing meaningful training for the Building Department.
- **Implementation Date:** Fiscal Year 2019-20 SOP updates and staff training.
Fiscal Year 2021-22 - Add Staff.