UNC | SCHOOL OF GOVERNMENT
North Carolina Benchmarking Project

# PROMISING PRACTICES FOR TIMELY COMPLETION OF BUILDING INSPECTIONS IN NORTH CAROLINA

**Presented to the NC Office of State Fire Marshal**

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# AUTHORS

**OBED PASHA, Ph.D.**
Robert W. Bradshaw Jr. Distinguished Associate Professor
of Public Management
Director of the North Carolina Benchmarking Project
UNC School of Government
pasha@unc.edu
*(Corresponding Author)*

**CHRISTOPHER L. COLE II**
Project Coordinator
NC Benchmarking Project
UNC School of Government
ccol@ad.unc.edu

**KIRSTEN TUCKER**
MPA Candidate & Project Coordinator
NC Benchmarking Project
UNC School of Government
kmtuck@live.unc.edu

**NOAH ELLINGTON**
MPA Candidate & Project Coordinator
NC Benchmarking Project
UNC School of Government
nelling@unc.edu

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# EXECUTIVE SUMMARY

The collective experiences of the inspection services programs of Currituck County, the City of Fayetteville, and Mecklenburg County demonstrate that timely inspection completion is a multifaceted achievement. Each of these high-performing jurisdictions operates a unique program, but their shared challenges and strategies reveal broader themes that may help other North Carolina jurisdictions improve the performance of their inspection services departments.

Personnel practices in the three high-performing jurisdictions are uniquely suited to each locality's needs. The number of inspections performed per inspector per day ranges from 7.09 to 7.80 in the three jurisdictions. Other jurisdictions can use this range to determine their workload based on their own needs, jurisdiction size, inspection type, travel time, and administrative support. There are also surprising similarities in core personnel practices across the three jurisdictions. In all three, inspectors and supervisors enjoy a high degree of operational independence, allowing them to frequently adjust assignments, self-transfer inspections, and communicate directly with their peers.

The three high-performing jurisdictions utilize multiple technological tools, including field tablets, large screens, and inspection management software, to effectively interact with clients and manage internal workflows. The jurisdictions recognize the necessity of collaborating with their respective IT departments to make continuous improvements in technology. Some of the identified projects for future improvements include the implementation of mobile-friendly platforms that bridge PC and tablet environments and the rollout of targeted training programs to help staff maximize the potential of digital inspection systems.

This report also presents the main elements of the permitting, plan review, and inspection processes adopted by each jurisdiction. The three processes are as varied as their corresponding jurisdictions. The jurisdictions developed these processes over time by making continuous minor adjustments in response to emerging issues. As a result, the process flows are tailored to the specific needs and realities of each jurisdiction. Other jurisdictions are encouraged to draw inspiration from these processes and adapt them to their specific needs.

The timeliness of inspections is a product of several interdependent factors and can be achieved through the right balance of personnel adaptability, technical systems, and customized processes. Jurisdictions of all sizes can invest in developing a balanced profile to effectively serve clients and gain community trust.

# INTRODUCTION

The North Carolina Office of State Fire Marshal (OSFM), the Office of Strategic Partnerships, and the Office of State Budget and Management partnered with the School of Government at the University of North Carolina at Chapel Hill in a research project that focused on the timely completion of building inspections in the state. This project addressed the expectations that local building inspection jurisdictions in North Carolina complete inspections within two business days of a request.[1] Timely completion of inspections is critical to

1. ensure the safety of residents;
2. maintain the state's economic viability; and
3. optimize the protection of property from fire, flooding, wind, and earthquake (seismic) hazards.

The OSFM defines a *high-performing jurisdiction* as one that completes inspections within two business days of a request, excluding weekends and holidays. Meeting this standard is not only an operational target but also reflects an organization's ability to deliver services that align with community needs and economic development priorities. Jurisdictions that consistently meet the two-day goal reduce project bottlenecks, increase client satisfaction, and enhance their reputations as accessible and reliable public partners.

## Purpose

This report serves as a guide for North Carolina building inspection jurisdictions, providing practical strategies to help meet their timeliness expectations. Building inspection jurisdictions within the state should consider their specific contexts and needs in adopting and adapting the personnel, technology, and process practices presented herein.

## Methodology

The OSFM identified three core areas that may impact the ability of local building inspection jurisdictions to complete inspections in a timely manner.

- **Personnel.** In the absence of clear industry standards, it is challenging to determine the number of high-quality inspections an inspector can perform in a day. This ambiguity leads to questions about how many inspectors a jurisdiction must hire to meet its needs. Beyond hiring, personnel practices to enhance the development, retention, and motivation of inspectors also require careful consideration.
- **Technology.** Disparities in the availability, access, and use of permitting and inspection software and hardware among building inspection jurisdictions make it difficult to choose the most beneficial and cost-effective system for each locality.
- **Process.** Building inspection jurisdictions employ a variety of procedures and practices for the timely completion of building inspections. Some of these practices are more effective than others. A lack of understanding about best practices regarding the selection, scheduling, and qualifications of building inspectors can result in the adoption of ineffective practices.

1. Code Officials Qualification Board; Chapter 143, Section 139.4 of the North Carolina General Statutes.

This report addresses these core issues by seeking to answer the following questions.

1. How many building inspectors do jurisdictions need to complete inspections in a timely manner? What personnel practices increase the timeliness of inspections?
2. What technological tools are most helpful for completing inspections in a timely manner?
3. What promising practices can help jurisdictions complete inspections in a timely manner?

The UNC School of Government adopted a two-phased approach to answer the above questions.

**Phase 1:** In the first phase, the North Carolina Benchmarking Project collected data from seventy North Carolina building inspection jurisdictions in the fall of 2024. This data included the number of

- inspections requested,
- inspections completed within two business days, and
- inspectors employed by each jurisdiction.

The data was then used to determine the percentage of inspections completed in a timely manner and, on average, the number of inspections an inspector completes per day. These percentages and averages were used to develop guidelines regarding the number of inspectors jurisdictions need to budget for and hire in order to complete inspections within two business days.

**Phase 2.** In the second phase, jurisdictions that have the highest percentage of timely completed inspections were identified. The authors selected three of the top-performing jurisdictions based on the following criteria.

- The jurisdiction provided reliable data for fiscal year 2024–2025 to the North Carolina Benchmarking Project.
- The jurisdiction is a top performer, ideally with 100 percent of residential inspections performed within two business days of the request.
- The three selected jurisdictions include one small (less than 100,000 in population), one medium (greater than 100,000 and less than 250,000 in population), and one large (greater than 250,000 in population) jurisdiction.
- The three selected jurisdictions include at least one county and one municipality.
- The three selected jurisdictions represent different regions of the state. (Western North Carolina was excluded from the study due to Hurricane Helene rebuilding efforts.)

Obed Pasha (UNC School of Government) and Mike Hejduk (North Carolina Code Officials Qualification Board) applied the above criteria to select the following three high-performing building inspection jurisdictions for this report. All three reported 100 percent compliance with the timeliness expectation:

- Currituck County,
- the City of Fayetteville, and
- Mecklenburg County.

In spring 2025 the North Carolina Benchmarking Project convened leaders from Currituck County, Fayetteville, and Mecklenburg County for a series of interview and focus-group sessions to study how these jurisdictions meet their timely inspection goals. Each jurisdiction provided detailed insights into the realities of day-to-day inspection operations, offering a range of perspectives from a small rural community, a mid-sized municipality, and a large urban center. These sessions explored the significance of personnel practices, technology adoption, and process design, highlighting the common challenges and innovative solutions that helped these jurisdictions meet timeliness expectations.

# PERSONNEL

The first variable considered in this report pertains to the personnel practices used by Currituck County, the City of Fayetteville, and Mecklenburg County to meet their timeliness goals. The three jurisdictions vary in population and in the number of inspections performed by each inspector (see Table 1). In Mecklenburg County, the largest of the building inspection jurisdictions, each inspector performs 7.80 inspections per day. In the City of Fayetteville, the number of inspections performed per inspector per day is 7.63, whereas in Currituck County, the number is 7.09 per inspector per day.

The number of inspections performed per inspector per day is fairly consistent across the three high-performing jurisdictions, ranging from 7.09 to 7.80. Other building inspection jurisdictions could use this range to determine their workloads based on their needs and a variety of contextual factors, including jurisdiction size, inspection type, travel time, and administrative support. For example, each inspector in Currituck County covers around 52.4 square miles over multiple islands per day (population density: 107.3 people per square mile), whereas in Mecklenburg County the area covered per inspector averages to roughly 3.3 square miles per day (population density: 2,130.4 people per square mile). The appendix provides community profiles and maps.

### TABLE 1. Inspections Completed per Inspector FTEs

| Jurisdiction | Residential Inspections[a] | Commercial Inspections[a] | Total Inspections | Inspector FTEs[b] | Inspections per FTE per Year[c] | Inspections per FTE per Day |
|---|---|---|---|---|---|---|
| Currituck County | 8,426 | 795 | 9,221 | 5 | 1,844.20 | 7.09 |
| City of Fayetteville | 22,242 | 9,492 | 31,734 | 16 | 1,983.38 | 7.63 |
| Mecklenburg County | 232,279 | 96,089 | 328,368 | 162 | 2,026.96 | 7.80 |

a. Includes inspections for new construction, additions, alterations, and conversions.
b. FTE = full-time equivalents (2,080 work hours per year).
c. Based on 260 workdays in a year.

## Development

The three high-performing jurisdictions emphasized the need for continued training in documentation, communication, and navigating technology to increase inspection timeliness. As mobile apps and inspection software become more integrated into the inspection workflow, jurisdictions can benefit from ensuring that all staff, regardless of their technical background, are equipped to utilize new tools to their full potential. High-performing jurisdictions identified the following benefits of a robust training system:

- Field staff are onboarded quickly when new systems are introduced.
- Inspectors become confident using mobile platforms for documentation and scheduling.
- Inspectors and staff employ state-of-the-art technology without confusion or rework.

## Peer-to-Peer Support

A peer-based training culture, where new inspectors shadow experienced colleagues in the field, enables employees to gain practical experience in real-world inspection environments. Inspectors develop skills through active observation and real-time support, allowing them to adapt more quickly to job expectations and daily workflows. Real-time communication enables teams to quickly adjust when unexpected issues, such as unclear site access, missing documentation, or same-day cancellations, arise. Inspectors in Fayetteville, for example, contact each other by phone to discuss issues and seek guidance from more experienced peers. The city's inspectors and supervisors use direct phone communication throughout the day to adjust assignments, confirm scheduling, and share field conditions, ensuring that inspections remain on track even when schedules shift or personnel availability changes. Participants believe this informal method of communication is often more efficient than software dispatches, particularly when addressing last-minute changes or urgent site needs.

Currituck County endorses using FaceTime to resolve issues as they arise in the field. When inspectors encounter site-specific challenges, they can immediately contact contractors, supervisors, or permitting staff for clarification and guidance. This approach reduces downtime and eliminates the need to return to the office to verify information. These inspectors frequently rely on FaceTime as a faster alternative for communicating about progress or specific issues that require on-site investigation.

## Open Dialogue

Inspectors from the three jurisdictions emphasized the importance of supporting informal, judgment-free communication. In a work environment where much of the information needed to make decisions cannot be captured in forms or checklists, open dialogue becomes essential. Mecklenburg County leadership asserted that inspectors and supervisors benefit from feeling comfortable sharing details, asking clarifying questions, and making judgment calls without fear of reprimand or red tape. A culture of open dialogue in Mecklenburg County has reduced communication barriers between leadership and inspectors. The leadership team ensures that inspectors do not feel they will be admonished for reporting issues or errors; instead, leadership works with frontline staff to find systemic solutions to problems staff encounter in the field. Jurisdictions that encourage problem-solving and informal conversations across roles are better equipped to respond to challenges, as opposed to organizations that rely on "gotcha" management.

## Flexibility

Even the most advanced organizational systems cannot predict every situation in the field. Flexible staffing structures enable inspectors to adapt to changes such as unexpected absences, fluctuating demand, or technical issues, thereby ensuring continuity of service. Mecklenburg County empowers inspectors to make operational decisions (e.g., adjusting staff schedules or redistributing workloads) without excessive supervision or rerouting of tasks. Such flexibility improves timeliness, reduces missed inspections due to absence or overbooking, enables quick response to field changes, and increases ownership among field staff. Currituck County inspectors manage their own schedules directly through a mobile inspection app. Doing so allows them to reassign inspections to colleagues when needed, minimizing reliance on administrative staff and helping avoid delays when an inspector is unexpectedly unavailable or overbooked. Fayetteville inspectors frequently adjust staff coverage informally through direct phone conversations, allowing them to respond dynamically to workload changes or unforeseen conditions. This informal redistribution usually occurs early in the morning and sometimes continues throughout the day as situations arise.

## Single versus Multi-Trade Inspectors

The City of Fayetteville credits single-trade inspectors for the timeliness of its inspection programs, but encourages certification in other trades as well. In some cases, inspectors may hold a secondary certification in related fields; a mechanical inspector might obtain an electrical certification, and a plumbing inspector may earn a building certification as a secondary field. Secondary inspections are primarily used to cover absences. In some cases, inspectors may note issues in secondary areas while conducting their primary area inspection. Still, the inspector will take care of only those tasks in a secondary area that can be accomplished by a Level III inspector.

In Mecklenburg County, all residential inspectors are dual (building/plumbing, electrical/mechanical) or four-trade certified. Commercial inspections are more complex, however; most commercial inspectors in the county are single-trade certified, with the exception of a few inspectors who hold mechanical/plumbing certifications. In addition, the inspections director and chief code consultant are Level III approved across all trades and are certified building officials.

Currituck County, on the other hand, relies exclusively on multi-trade inspectors. All inspectors must receive all certifications and perform all trade inspections. A small number of inspectors covering the relatively large geographic area of Currituck County necessitate that each inspector accomplish all trade inspections within their normally assigned zone.

# TECHNOLOGY

The three high-performing jurisdictions recognized the importance of tablets, laptops, and smartphones in conducting timely inspections. These tools help inspectors view site details, document findings, upload photos, and communicate with team members. As these tools become increasingly essential for inspections, however, insufficient storage capacity, compatibility issues with key software, or restricted functionality, such as limited photo viewing capabilities in mobile apps, become significant limitations. Connectivity concerns can also impact the reliability of devices in the field. If devices are outdated, incompatible with software, or too fragile for field conditions, they can become a liability rather than an asset. A robust technology profile for building-inspection jurisdictions includes

- consistent device performance in varied field conditions,
- seamless interaction between hardware and inspection software, and
- reduced device-related delays in documentation or communication.

The three high-performing jurisdictions identified the following strategies that strengthen their technology profile.

## Field-Ready Devices

Providing inspectors with rugged, field-ready devices enhances reliability and usability in environments where construction debris, weather exposure, and constant movement are part of daily operations. Devices with reinforced casings, screen protectors, and ergonomic grips enable inspectors to complete documentation tasks confidently, reducing the risk of damage or data loss. During the strategy sessions, participants emphasized that durable hardware reduces interruptions and the risk of breaking costly devices.

## Regular Hardware Refresh

Implementing a formal refresh cycle for mobile hardware, typically every three to five years, helps ensure that inspectors can access up-to-date devices that run the latest software and accommodate current data storage needs. Routine hardware updates help prevent service slowdowns, minimize compatibility issues, and reduce maintenance costs over time. The three-to-five-year cycle also aligns with building code updates, which typically occur every three years and require continuous adaptation by staff across all trades. Because interpreting new codes can be complex, especially when inspectors are expected to understand multiple disciplines, proper technological support is essential. Mobile platforms that integrate updated code references and digital field guides can help inspectors meet compliance requirements and reduce the risk of inspection errors or rework.

## Systemwide Platform Compatibility Testing

Conducting structured compatibility tests before issuing new devices to inspectors ensures that field and office software perform consistently across platforms. Participants shared that a lack of compatibility between devices and key programs delays software implementation and creates inefficiencies. Mismatches between mobile operating systems (e.g., iOS vs. Windows) and core applications can result in loss of functionality, such as limited access to scheduling tools or data-entry features. By establishing a standardized pre-rollout testing

protocol, jurisdictions can identify and resolve integration issues early on, streamlining adoption of software and reducing expenditures on hardware that doesn't serve the organization's needs.

## Inspection Software

Inspection software serves as the backbone for scheduling, documentation, and internal communication functions. Inspection software systems help streamline operations, reduce administrative overhead, and enhance customer service by providing real-time access to current inspection status. Outdated, unreliable, or poorly integrated software can cause delays and frustrate staff. Study participants emphasized that there is no one-size-fits-all software platform; choosing the right software requires aligning technical features with a jurisdiction's operational needs. In general, robust inspection software should

- support real-time communication,
- integrate with permitting systems,
- function in the field,
- align with existing hardware,
- include strong vendor support,
- provide an uncomplicated training experience,
- allow real-time inspection scheduling and status tracking, and
- reduce manual workarounds due to platform limitations.

## Partnership with IT

Establishing a close partnership between the inspections and IT departments helps ensure that software is correctly maintained and utilized. IT departments can help assess which platforms align best with operational workflows, field hardware, and long-term service goals. IT professionals also play a critical role in configuring features, managing updates, resolving technical issues, and training staff on how to use systems effectively. High-performing jurisdictions recognize that software's full potential is often underutilized due to limited technical support or a lack of shared understanding about platform capabilities. Regular communication with IT staff helps building-inspection jurisdictions adapt software systems to their needs, prevent performance slowdowns, and support ongoing staff development. Furthermore, mismatches between mobile devices (such as iPads, phones, and tablets) and PC-based programs may create issues for inspectors as they switch between field equipment and office systems. The IT department can address these issues by offering a structured, cross-platform training curriculum that aligns with both field and desktop tools.

## Client Self–Scheduling

Allowing contractors to schedule their own inspections and receive automated notifications reduces administrative workload and increases transparency. Client-facing portals and status alerts help projects stay on track and minimize missed appointments. High-performing jurisdictions reported that effective software systems enable contractors to select available time slots and receive automatic confirmations or updates. Currituck County, for example, allows clients to self-schedule inspections online. Fayetteville's IT platform enables contractors to manage their own bookings. Mecklenburg County provides automated notifications that

inform clients when inspections are scheduled or completed, helping align client and department expectations.

## Automation and Field Integration

Up-to-date inspection software can significantly improve automation, standardization, and real-time coordination. Legacy platforms, some of which have been used for over two decades, often lack features such as integrated messaging, mobile syncing, or dynamic scheduling, thus limiting department efficiency. Planned system updates help address some of these issues until full-scale software modernization is implemented.

## Resolving Connectivity Issues

Inconsistent Wi-Fi or cellular access prevents inspectors from uploading results, accessing plans, or syncing updates. All three jurisdictions reported periodic connectivity gaps, particularly in rural and densely populated areas. Mobile dead zones, unreliable Internet, and a lack of offline functionality reduce inspector efficiency and create backlogs. Providing inspectors with devices that support both Wi-Fi and cellular connectivity enables inspectors to switch networks as needed, reducing the impact of mobile dead zones or signal drops. Procuring inspection software that allows offline data entry and automatically syncs when connectivity is restored can significantly reduce the effects of service interruptions. These systems enable inspectors to complete their documentation, take photos, and log outcomes in the field, even without an active Internet connection, and then upload the data once a connection is available. Although such systems may require upfront investment and technical integration, they help ensure continuity of service in challenging field environments.

Some jurisdictions utilize Bing-mapped GIS points that provide inspectors with location coordinates to assist in finding job sites, particularly in areas without GPS routing, thereby reducing the risk of missing remote or newly plotted sites.

## Document Handling

Consistent and reliable documentation is required throughout all steps of the inspection process. Efficient documentation ensures accuracy and promptly gives contractors the signal to proceed with work. Currituck County inspectors document their findings and upload photos in real time via tablets. Fayetteville records timestamps for all inspection requests and completions through its system. Mecklenburg County tracks data in inspection software and uses Excel as a backup to drill down to specific details.

# PROCESS

This section describes the inspection processes adopted by Currituck County, the City of Fayetteville, and Mecklenburg County, from permitting to obtaining a certificate of occupancy. These processes have been developed over time and are tailored to the specific needs of each jurisdiction.

## CURRITUCK COUNTY

The permitting process in Currituck County begins when a client submits an application, either online through the permitting portal or in person. The county also offers a pre–building plan review option for commercial projects. For a $100 fee, applicants can submit building plans before the formal application process to receive early feedback. This review, conducted solely by building inspectors, allows commercial applicants to resolve compliance issues in advance, reducing delays during the formal permitting phase.

Once an application is received, it is assigned to one of three permit technicians based on workload. Permit technicians initiate the intake review; on the day of the assignment, they check the application for completeness. If an application is missing attachments, such as site plans or construction drawings, the technician uses standardized email shortcuts in the permitting software to notify the applicant. The application remains on hold until all required documents are submitted. Once complete, the permit technician sends the application forward for review.

The residential review process includes two tracks: zoning and building. The commercial review process includes a fire track, in addition to zoning and building. Zoning reviews are handled by planning technicians, while building reviews are conducted by certified building inspectors. For commercial projects, an additional fire review is conducted by the building inspector as part of the inspector's certification area. The system sends automatic email notifications to applicants when reviews are initiated or completed, along with reviewer contact information for follow-up. If a review cannot proceed due to incomplete or unclear documentation, it is placed on hold and returned to the applicant with an explanation of the required changes.

Once the application is resubmitted, the permit technician reassigns it for continued review. When all applicable reviews are approved, the application is returned to the permit technician, who then manually requests payment. Applicants can pay either online or in person. Once payment is received, the permit is officially issued, and the applicant can proceed to request inspections.

A building permit is issued once all required documentation is received and fees have been paid. The building inspection process begins when the client initiates a construction project. To schedule an inspection, contractors or property owners can either call in their request or submit it online. To qualify for next-business-day scheduling, the request must be submitted by 3:00 p.m. Regardless of how the request is submitted, a permit technician verifies that all required documentation is in place before assigning the inspection. For instance, certain types of inspections, like rough-ins, may require additional items such as elevation certificates.[2]

2. The National Flood Insurance Program requires that communities participating in the program enforce floodplain management regulations, which include elevating the lowest habitable floor of new or substantially improved buildings to or above the base flood elevation. This elevation requirement aims to reduce flood damage and maintain eligibility for federal flood insurance. Some jurisdictions, particularly those facing coastal hazards or erosion risks, may adopt more stringent elevation standards to address local conditions.

If documents are missing or incomplete, the permit technician contacts the contractor to obtain the necessary information. Missing or incomplete documentation delays scheduling until all information is received and verified.

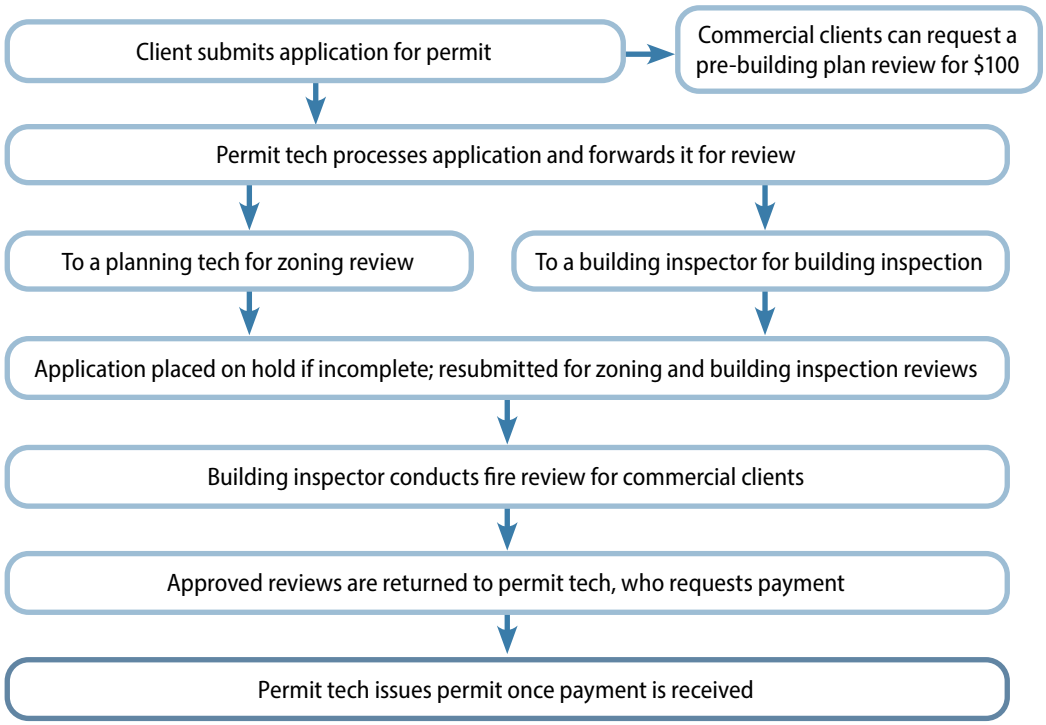
Once all prerequisites are met, the permit technician proceeds with scheduling. If the request was submitted by phone, the technician manually enters the information into the system. If the request is made online, a technician verifies the submission and assigns the inspector according to the inspector's geographic zone. After 3:00 p.m. inspectors log in to set their own time slots for the inspections they've been assigned. This self-scheduling approach allows inspectors to create an efficient schedule based on location of sites and workload balance. Once finalized, the permit technician posts the inspection schedule online, making it viewable for both contractors and citizens.

On inspection day, inspectors report to designated vehicle locations according to their zones and head to job sites, where the inspections are performed. They use tablets equipped with inspection applications to review job details, document site findings, input notes, and take photographs. This mobile capability supports timely documentation while minimizing the need to return to the office during the day. (See the appendix for jurisdictional maps.) After completing inspections, inspectors return to the office to

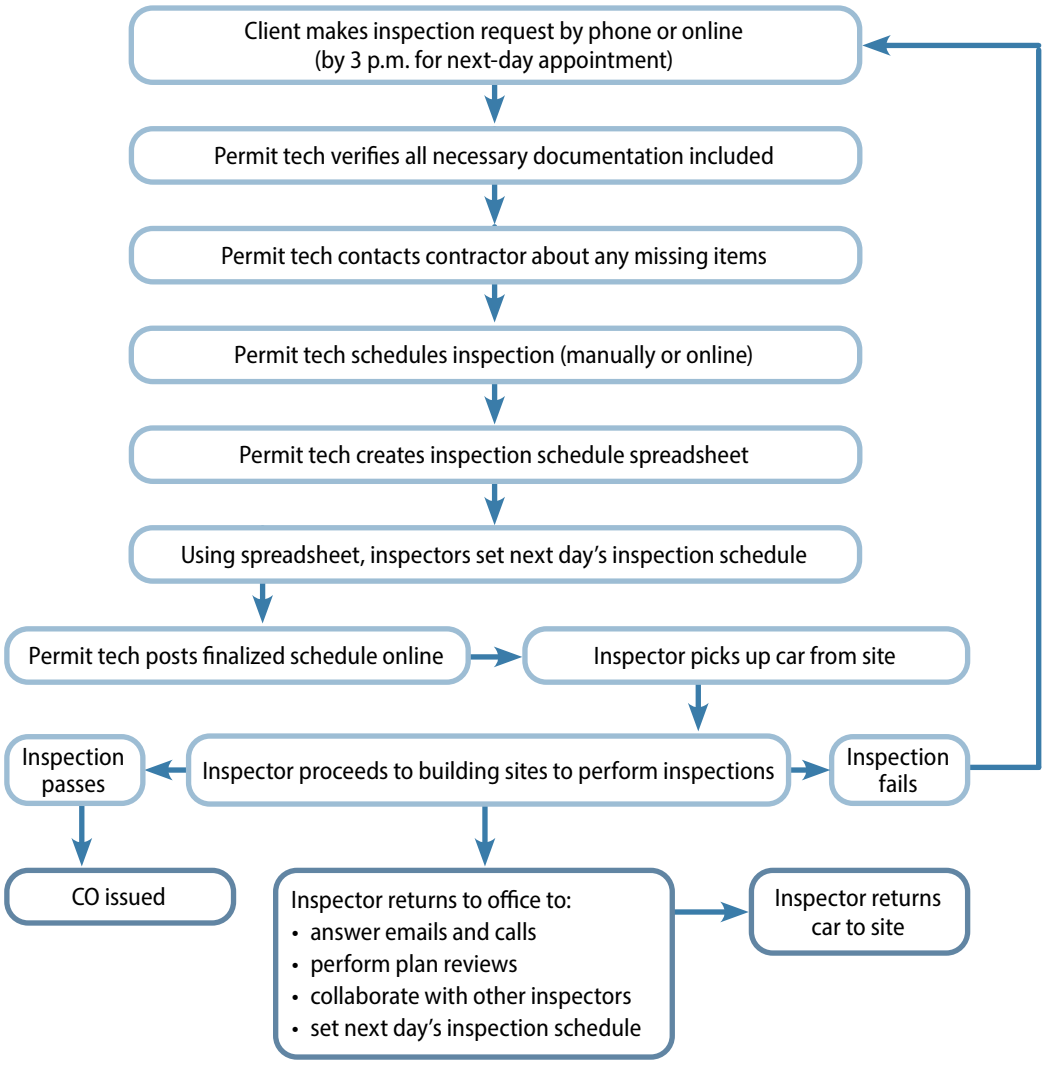
- respond to emails and phone calls,
- conduct plan reviews on desktops,
- collaborate with fellow inspectors, and
- meet to prepare for the next day's inspection schedule.

This cycle ensures that staff remain responsive to stakeholders while staying current with documentation, plan checks, and internal coordination.

### FIGURE 1. Permitting Process for Currituck County



## FIGURE 2. Inspection Process for Currituck County



## CITY OF FAYETTEVILLE

In the City of Fayetteville, the permitting and inspection process begins when an applicant submits a permit application and, when required, accompanying plans through the information and digital technology (IDT) portal. (The city discontinued the paper submission process in October 2020.) Because the North Carolina Building Code states only that inspection departments must be satisfied with the submitted drawings and specifications to issue a permit,[3] the City of Fayetteville developed its own additional guidance to determine whether a project requires plans. Typically, new construction, especially commercial or structural work, requires plan review, while simpler renovations may not. Once submitted, all applications undergo an intake review. This step ensures all necessary documentation, such as an explanation of the type of construction and project scope, is present. Plan reviewers evaluate the submissions for compliance. If multiple departments need to be involved, such as fire, zoning, or engineering, the IDT system distributes the plans to each department accordingly. This entire process happens within the centralized digital portal.

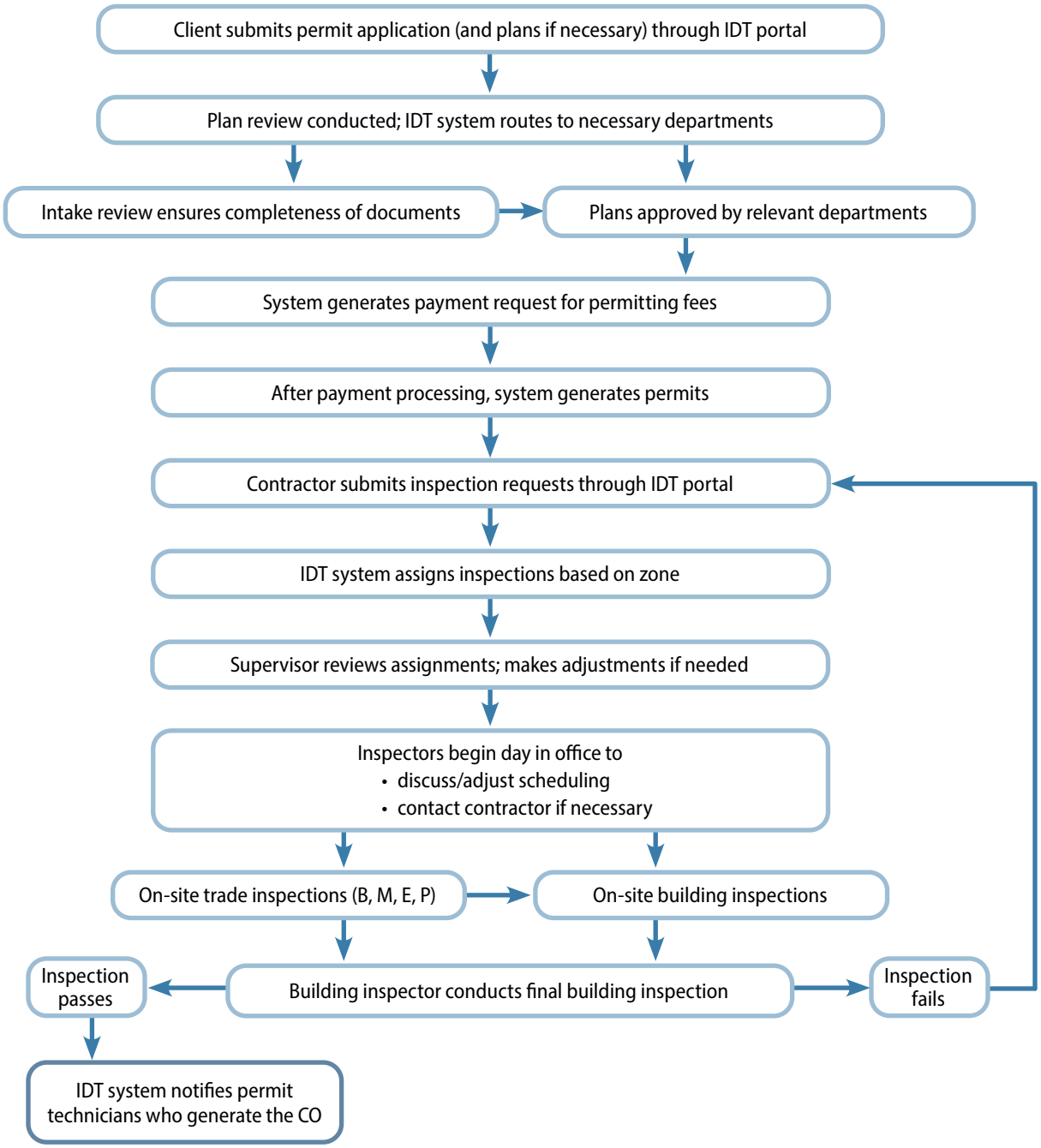
After all required departments approve the plans, the application status changes to "Ready for Payment." The system then automatically sends a payment request to the applicant. Once the payment is processed, the permit is issued immediately; no manual step is needed. This automation enables permits for smaller residential projects to be issued on the same day in some cases. Fayetteville has established internal turnaround targets for permitting—five days for residential and ten days for commercial—which are consistently met or exceeded.

After the permit is issued, the contractor or an authorized party submits inspection requests through the IDT platform. The IDT system then auto-assigns inspections based on predefined zones associated with each inspector's profile. This process streamlines scheduling and eliminates the need for daily manual assignments unless adjustments are required. Inspectors report to the office between 8:00 and 9:00 a.m. each day. During this hour, they discuss upcoming jobs with each other and supervisors, handle scheduling logistics, and make any needed calls to contractors. While initially implemented to ensure inspector accessibility, the morning window now supports teamwork and coordination.

Inspections are performed throughout the day, with inspectors following a route optimized for efficiency. Contractors are responsible for ensuring the site is ready for inspection. If an inspection fails due to site conditions or premature scheduling, a reinspection fee is assessed. After the necessary inspections are passed, certificates of compliance are automatically issued for each trade (mechanical, electrical, plumbing). Once a permit technician approves the final building inspection, a certificate of occupancy is issued. Both certificates are generated through the IDT system and sent electronically to the permit holder, completing the process.

3. *See* Section 106.2 of the North Carolina Building Code.

## FIGURE 3. Permitting and Inspection Process for the City of Fayetteville



## MECKLENBURG COUNTY

### Commercial

In Mecklenburg County there are separate procedures for commercial versus residential permitting and inspections. The commercial process begins with an electronic plans management (EPM) request, where clients initiate a new project. This step is immediately followed by a preliminary (prelim) meeting with county staff, a critical early-stage interaction that helps applicants clarify their project intent, expectations, and phasing before submitting formal plans. These meetings are free and designed to prevent later delays or rework by proactively identifying common issues. Once the preliminary discussion is complete, clients submit a project overview. This overview does not include detailed plans but outlines the scope of the upcoming project. Based on this information, managers of the relevant workgroups provide an estimate of how many review hours the project will require. These estimates are essential for the next step: scheduling.

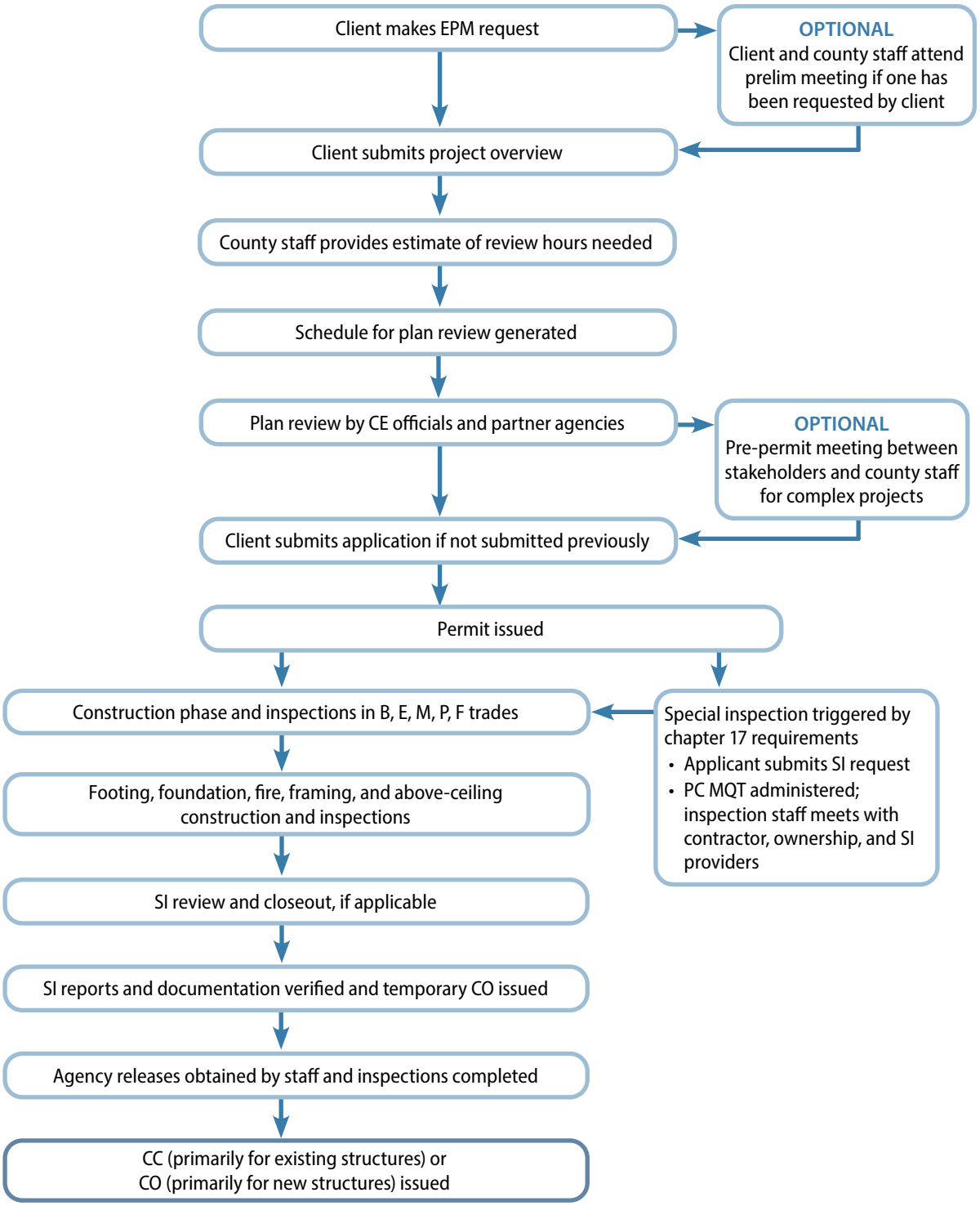
Mecklenburg County uses a scheduled review system. This system enables the county to provide applicants a target completion date for the review, increasing predictability and efficiency. After the project is scheduled, the formal plan review process begins. This step is handled collaboratively by code enforcement (CE) officials and various partner agencies. These agencies are automatically routed into the process based on GIS-linked business rules that flag specific project attributes, such as floodplains or historical overlays. Agency feedback is integrated into the system during the review period.

Once plans are reviewed and approved, a pre-permit meeting between stakeholders and county staff is held. This meeting ensures that the permit documentation will align correctly with the approved project and that any phasing or special conditions are clarified. Applicants then proceed to submit their application in the permitting system, and the project is officially permitted.

If the project triggers requirements under chapter 17 of the North Carolina Building Code, such as for structural steel, deep foundations, or other complex elements, it must undergo a special inspection (SI). In this case, the applicant must first submit an SI request, which is followed by a pre-construction minimum qualifications test (PC MQT). If the project does not require an SI, it proceeds directly into the construction inspection phase immediately after permitting. A meeting involving county inspection staff, the contractor, ownership, and the third-party SI provider defines expectations and responsibilities. The project then enters the construction phase, with inspections conducted across the building (B), electrical (E), mechanical (M), plumbing (P), and fire (F) disciplines. After these are completed, the project proceeds through the footing/foundation (FT/FD), framing/rough-in (FR), and above-ceiling stages and inspections.

Once construction nears completion, an SI closeout, if applicable, is required. Third-party SI providers must submit all inspection reports and documentation into the county system; county staff then review this information to ensure compliance. Only after this verification can the contractor apply for temporary occupancy. After all required inspections have been passed and all necessary agency releases have been obtained, the county issues a certificate of compliance (CC) or a certificate of occupancy (CO).

## FIGURE 4. Commercial Permitting and Inspections Process for Mecklenburg County



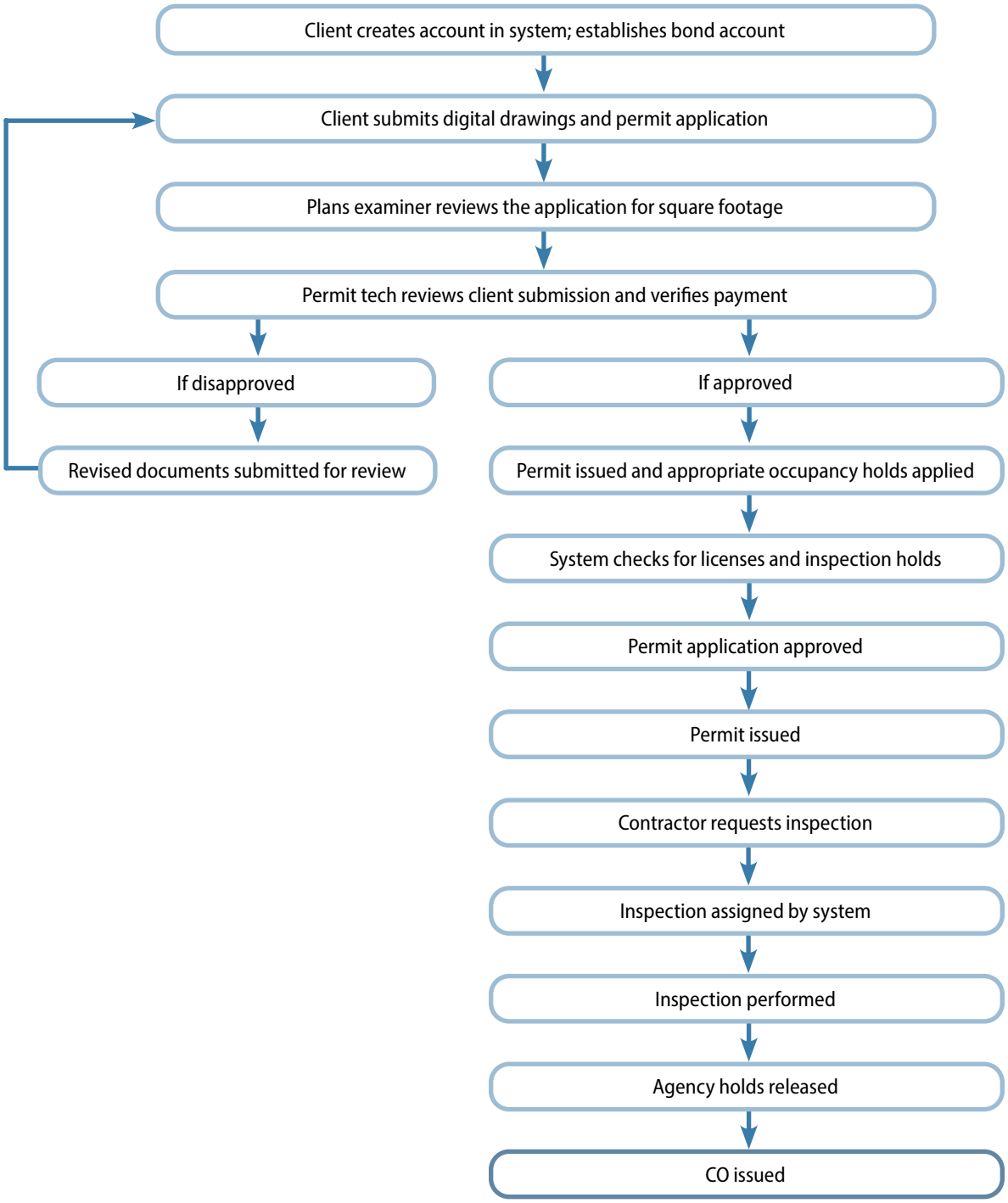
## Residential

Mecklenburg County's residential inspection process begins when a client creates an account within the county's system and establishes a bond account, which is necessary to track financial responsibility. Once the account is active, the client submits digital drawings, which a permit technician reviews. Technician staff serve a critical gatekeeping role by checking for minimum submittal requirements, confirming that necessary information is present, and verifying payment completion. If plans are incomplete or fail to meet the established minimum standards, the permit technician will return them to the applicant for correction. If the drawings meet all basic criteria, the plans are formally reviewed. After the plans are approved, the applicant submits the official permit application. If the plans are disapproved, the applicant must submit the revised documents for another round of review.

After the permit application is submitted, the system automatically verifies that all required licenses are valid and that any holds (e.g., zoning, floodplain, or historic considerations) have been addressed. This verification includes triggering agency reviews according to GIS-based business rules, ensuring that any applicable outside agencies are involved early in the process. Next, a plans examiner reviews the application for square footage.

Once the permit tech has reviewed and approved the application, the permit is issued and becomes active in the system. The contractor can then request inspections via the county's separate inspection management system. The inspection assignments are automatically routed based on inspector territory and workload. A daily "help list" is manually created by supervisors to balance workloads or cover absences, ensuring flexibility in field operations. Inspections are then performed across all relevant trades (building, electrical, mechanical, plumbing, and fire). If any inspections fail, contractors correct the issues and schedule reinspections using the same digital process. Once all final inspections are passed, the permit is marked "all finaled." Next, the release of agency holds is confirmed. Once all reviews are signed off, the certificate of occupancy (CO) is issued, formally closing the process and authorizing legal use of the structure.

## FIGURE 5. Residential Permitting and Inspections Process for Mecklenburg County



# APPENDIX: COMMUNITY PROFILES

This appendix provides jurisdictional boundary maps and other information about the three participating departments: Currituck County, the City of Fayetteville, and Mecklenburg County. Community profiles provide the context for each jurisdiction's variation in aspects such as population density, travel time, and training and logistical demands. Population and jurisdictional area data are sourced from the 2020 U.S. Census Bureau's QuickFacts.

# Currituck County

Land area in square miles: 261.91

Population per square mile: 107.3

Personnel expenses: $1,033,072

Operational expenses: $325,245

Total expenses: $1,356,327

Revenue: $1,201,932

Number of inspectors certified in the following trades:

- **Building**
  - » Level 1: 2
  - » Level 2: 0
  - » Level 3: 4
- **Plumbing**
  - » Level 1: 2
  - » Level 2: 0
  - » Level 3: 4
- **Mechanical**
  - » Level 1: 2
  - » Level 2: 0
  - » Level 3: 4
- **Electrical**
  - » Level 1: 2
  - » Level 2: 0
  - » Level 3: 4

All inspectors are multi-trade certified. The director is Level III approved across all trades.

# City of Fayetteville

Land area in square miles: 148.26

Population per square mile: 1,406.3

Personnel expenses: $5,240,659

Operational expenses: $322,074

Total expenses: $6,002,554

Revenue: $2,989,278

Number of inspectors certified in the following trades:

- **Building**
  - » Level 1: 1
  - » Level 2: 1
  - » Level 3: 2
- **Plumbing**
  - » Level 1: 0
  - » Level 2: 0
  - » Level 3: 3
- **Mechanical**
  - » Level 1: 0
  - » Level 2: 2
  - » Level 3: 2
- **Electrical**
  - » Level 1: 0
  - » Level 2: 0
  - » Level 3: 5

Twelve inspectors are multi-trade certified.

# Mecklenburg County

Land area in square miles: 523.61

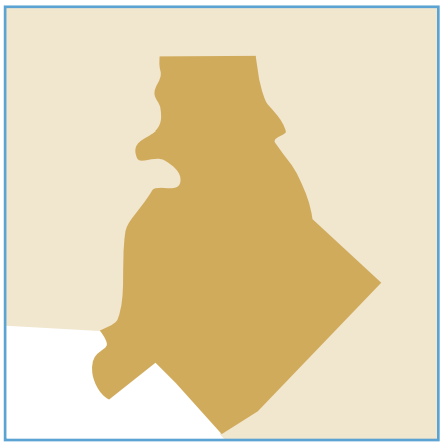
Population per square mile: 2,130.4

Personnel expenses: $31,651,387

Operational expenses: $13,589,862

Total expenses: $45,241,249

Revenue: $44,782,216



Number of inspectors certified in the following trades:

- **Building**
  - » Level 1: 43
  - » Level 2: 37
  - » Level 3: 67
- **Plumbing**
  - » Level 1: 46
  - » Level 2: 39
  - » Level 3: 56
- **Mechanical**
  - » Level 1: 50
  - » Level 2: 38
  - » Level 3: 52
- **Electrical**
  - » Level 1: 41
  - » Level 2: 31
  - » Level 3: 50

One hundred fifty-eight inspectors are multi-trade certified.

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