



City of Chicago



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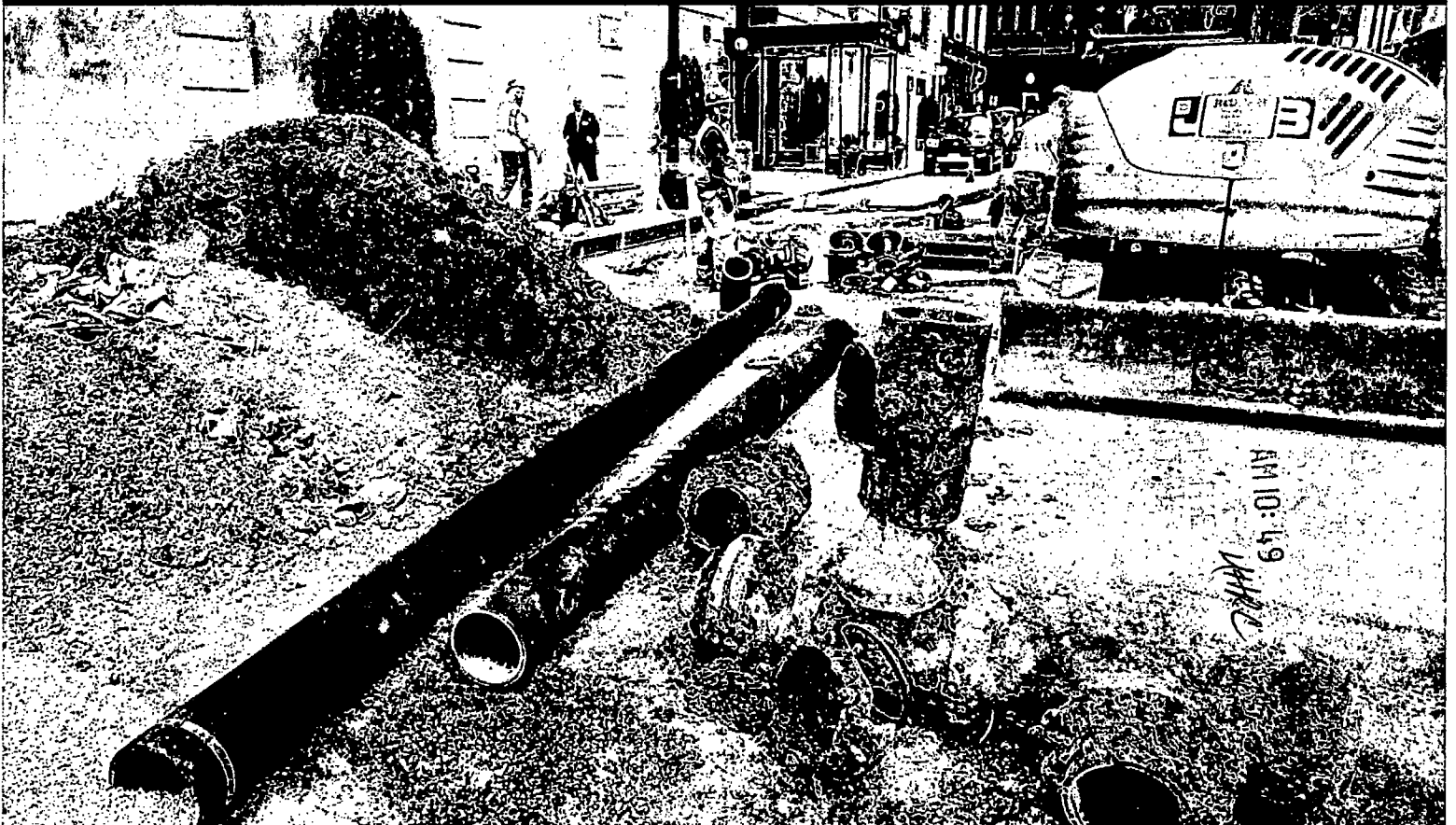
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JUNE 2019

CITY OF CHICAGO OFFICE OF INSPECTOR GENERAL

CHICAGO DEPARTMENT OF TRANSPORTATION MANAGEMENT OF CONSTRUCTION IN THE PUBLIC WAY FOLLOW-UP INQUIRY



REPORT OF THE OFFICE OF INSPECTOR GENERAL



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JUNE 11, 2019

**TO THE MAYOR, CITY COUNCIL, CITY CLERK, CITY
TREASURER, AND RESIDENTS OF THE CITY OF CHICAGO:**

The City of Chicago Office of Inspector General (OIG) has completed a follow-up to its January 2018 audit of the Chicago Department of Transportation's (CDOT) Management of Construction in the Public Way. Based on the Department's responses, OIG concludes that CDOT has implemented some corrective actions, while others are still in progress, only partially implemented, or not implemented at all.

The purpose of the 2018 audit was to determine whether CDOT maximized public way project coordination opportunities, thereby protecting City infrastructure and minimizing disruptions, and whether the Department ensured that permittees restored street surfaces in accordance with its rules and regulations. OIG found that CDOT's project coordination efforts saved the City at least \$18.1 million in 2016 and reduced unnecessary roadwork, though we identified further opportunities to improve coordination. We also found that CDOT did not consistently hold public way opening permittees accountable for poor-quality restoration work.

Based on the results of the audit, OIG recommended that CDOT,

1. improve its coordination program by increasing information sharing among stakeholder agencies regarding their long-term capital improvement plans;
2. improve project coordination with the City's Department of Water Management (DWM) and ensure that DWM provides a five-year capital plan;
3. involve the Public Building Commission (PBC) and Department of Planning and Development (DPD) in project coordination efforts;
4. assume full responsibility for core infrastructure planning by removing it from the Aldermanic Menu Program;
5. implement procedures to ensure that emergency dig tickets cannot be used to circumvent the project coordination process;
6. conduct a staffing analysis to determine how many inspectors are needed to meet CDOT's legal duty to inspect all public way restorations, work with the City's Office of Budget and Management (OBM) to staff this function

appropriately, and implement processes for random and risk-based restoration inspections; and

7. track all inspections by associated permits in its Hansen 8 database.

In its response to the audit, CDOT described corrective actions it would take regarding most audit recommendations but disagreed with OIG's recommendation that the Department assume full responsibility for core infrastructure planning by removing it from the Aldermanic Menu Program.

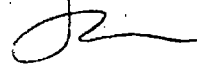
In February 2019, OIG inquired about corrective actions taken by CDOT in response to the audit. Based on the Department's responses, we conclude that CDOT has implemented only some corrective actions. Others are still in progress, only partially implemented, or not implemented at all. Specifically, CDOT has engaged with DPD and PBC to improve coordination with these entities, and has implemented procedures to help ensure that contractors do not use emergency dig tickets to circumvent the project coordination process. It has improved the way it solicits information from stakeholder agencies via their capital improvement plans, though it still does not collect five-year plans from each agency, a significant operational shortcoming in an otherwise conceptually sound program. CDOT has begun to address the gap between its mandate to inspect all public way restorations and its inspections staff's capacity, but has not been allocated resources to significantly expand this function. It has begun to develop an electronic system to schedule, record, and track inspections and citations by associated permit, though development is still in its early stages. Lastly, CDOT still declines to assume full responsibility for residential street infrastructure planning by removing it from the Aldermanic Menu Program.

We strongly urge CDOT to pursue full five-year capital improvement plans from stakeholder agencies to maximize opportunities to coordinate agencies' projects, to assume responsibility for core residential street infrastructure planning by removing the function from the Aldermanic Menu Program, and to continue its work with OBM to secure adequate staff for its public way inspection function. We also urge the Department of Water Management to develop the organizational capacity to produce a five-year capital improvement plan for its Water Bureau.

In renewing these recommendations, we are mindful that CDOT's capacity to implement is in meaningful part a function of limitations in its authority to enforce discipline and necessary action by other coordinating agencies, as well the exercise of political will of the Office of the Mayor. We urge the new administration to freshly examine and assess the issues and recommendations raised in OIG's audit as well as this follow-up. Below, we summarize our audit findings and recommendations, as well as the Department's response to our follow-up.

We thank the staff and leadership of CDOT for their cooperation during the audit and responsiveness to our follow-up inquiries.

Respectfully,

A handwritten signature in black ink, appearing to read 'J. Ferguson', with a stylized flourish at the end.

Joseph M. Ferguson
Inspector General
City of Chicago

FOLLOW-UP RESULTS

In February 2019, OIG followed up on its January 2018 audit of the Chicago Department of Transportation's (CDOT) Management of Construction in the Public Way.¹ CDOT responded by describing the corrective actions it has taken and providing supporting documentation. Below, we summarize our two findings, the associated recommendations, and the status of CDOT's corrective actions. OIG's follow-up inquiry did not observe or test implementation of the new procedures; thus, we make no determination as to their effectiveness, which would require a new audit with full testing.

OIG uses four categories to describe the Status of Corrective Action:

- **IMPLEMENTED** - The department has fully implemented actions that may reasonably be expected to resolve the core findings/concerns noted in the audit.
- **PARTIALLY IMPLEMENTED** - The department has implemented actions in response to the audit, but the actions do not fully address the findings/concerns raised in the audit.
- **PENDING IMPLEMENTATION** - The department has initiated action that, if fully implemented, may reasonably be expected to resolve the core findings of the audit. However, the department has not completed implementation
- **NOT IMPLEMENTED** - The department has not initiated or undertaken any actions responsive to OIG's findings.

¹ The January 2018 report is available on the OIG website <https://igchicago.org/2018/01/18/cdot-management-of-construction-in-the-public-way-audit/>

FINDING 1:

CDOT'S PROJECT COORDINATION EFFORTS SAVED THE CITY AT LEAST \$18.1 MILLION IN 2016 AND HAVE REDUCED UNNECESSARY ROADWORK, BUT OPPORTUNITIES FOR ADDITIONAL COORDINATION STILL EXIST.

OIG RECOMMENDATION #1:

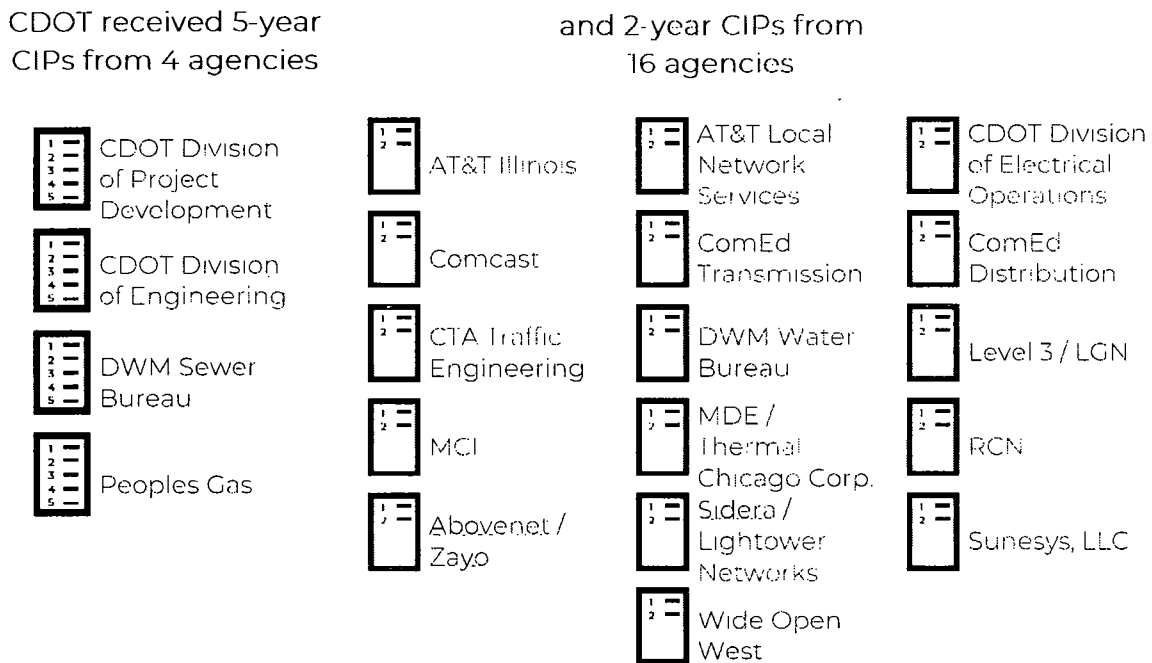
OIG recommended that CDOT, while remaining mindful of each stakeholder agency's needs and constraints, work with these agencies to determine how far in advance they can realistically devise and share plans involving work in the public way. CDOT should request that stakeholders provide the most forward-looking plans possible in order to better facilitate coordination and avoid unnecessary and redundant work.

STATUS OF CORRECTIVE ACTION: PARTIALLY IMPLEMENTED

CDOT stated that it has attempted to improve the usefulness of the information it collects from stakeholder agencies by requesting that they update their capital improvement plans (CIP) more frequently, include standardized data points, and include projects for which all details may not yet be available. CDOT also stated that it has begun informing delinquent agencies that it will not process work permit applications until their CIPs are updated. CDOT formalized these changes in its 2019 CIP data submittal policy.

However, the policy does not prescribe how far into the future stakeholders should forecast their projects. CDOT's 2019 Rules and Regulations state that it is the Department's responsibility to collect five-year capital improvement plans from stakeholders, but CDOT's CIP submittal policy does not, in turn, communicate this expectation to these agencies. Figure 1 describes the number of agencies that have provided five-year CIPs, two-year CIPs, or no CIP.

FIGURE 1: MANY COORDINATING AGENCIES ARE NOT SUBMITTING FIVE-YEAR CAPITAL IMPROVEMENT PLANS



Source CDOT

Notably, two of the four agencies that provided five-year plans are CDOT bureaus. (The other two are the City's Department of Water Management (DWM) Sewer Bureau and Peoples Gas.) CDOT said many of the 16 stakeholders that submitted two-year plans have difficulty forecasting due to business constraints, including "[the] rate of technology development (for example small cell antennas for the telecom industry), project complexity, lack of organizational capacity, and unpredictable project timelines. In these instances, agencies participate to the best of their ability by submitting partial [plans]." CDOT also stated that the agencies that did not submit CIPs do not have frequent projects in the public way, and therefore are not required to submit a plan.

OIG RECOMMENDATION #2:

OIG recommended that CDOT improve project coordination with the DWM and ensure that DWM provides a five-year capital plan to better facilitate coordination with other stakeholder agencies.

STATUS OF CORRECTIVE ACTION: PARTIALLY IMPLEMENTED

CDOT stated that it received a five-year capital improvement plan from DWM's Sewer Bureau, an improvement over the three-year plan this bureau had submitted previously. However, DWM's Water Bureau submitted only a two-year plan. CDOT stated that the Water Bureau lacks the organizational capacity to create a five-year capital improvement plan.

OIG RECOMMENDATION #3:

OIG recommended that CDOT involve the Public Building Commission (PBC) and Department of Planning and Development (DPD) in project coordination efforts. This could include inviting PBC and DPD to join its Office of Underground Coordination (OUC), or requesting that PBC and DPD provide development plans in the same manner as OUC members. At a minimum, this would entail routinely communicating with PBC and DPD to inquire about any projects that may provide opportunities for coordination among OUC stakeholders.

STATUS OF CORRECTIVE ACTION: IMPLEMENTED

CDOT stated that it has shared *OIG's original audit* with PBC and DPD, invited these agencies to coordination meetings, included them in coordination distribution lists, and works with them directly on a project-by-project basis. CDOT and DPD also developed new standard perimeter restoration agreement language to be included in all development projects utilizing the planned development process. CDOT stated that, because neither PBC nor DPD develop their own projects, there would be no material benefit to either agency attending coordination meetings on a regular basis.

OIG RECOMMENDATION #4:

OIG recommended that CDOT assume full responsibility for core infrastructure planning, as recommended in *OIG's Aldermanic Menu Program Audit*, by removing it from the Aldermanic Menu Program.²

² City of Chicago Office of Inspector General, "Chicago Department of Transportation Aldermanic Menu Program Audit," April 20, 2017, <https://igchicago.org/2017/04/20/cdot-aldermanic-menu-program-audit/>.

STATUS OF CORRECTIVE ACTION: NOT IMPLEMENTED

CDOT declines to remove core residential street infrastructure from the Aldermanic Menu Program, maintaining its position that the Program, "provides ample opportunity for coordination with stakeholders in the public way."³

OIG RECOMMENDATION #5:

OIG recommended that CDOT implement procedures to ensure that emergency dig tickets cannot be used to circumvent the project coordination process. This could include, among other reforms, staffing an inspection function designed to ensure that work performed under emergency dig tickets actually results from emergency circumstances, as required by the Underground Facilities Damage Prevention Ordinance.⁴

STATUS OF CORRECTIVE ACTION: IMPLEMENTED

CDOT has taken steps to improve its administration of emergency dig tickets and curb contractor abuse. The Department provided a list of procedures given to its 811 Chicago call center staff to identify genuine emergencies among excavator requests for emergency tickets, to notify excavators that their work sites may be inspected, and to warn them of the consequences of requesting an emergency dig ticket for a non-emergency. CDOT has also developed a presentation for stakeholder agencies that explains when an emergency ticket is warranted, each party's responsibilities following an emergency dig ticket request, and CDOT's compliance expectations. CDOT stated that it has given the presentation at ten outreach events with stakeholder agencies in recent months. CDOT's 811 Chicago is also a member of the Greater Chicago Damage Prevention Council and Underground Contractor Association.

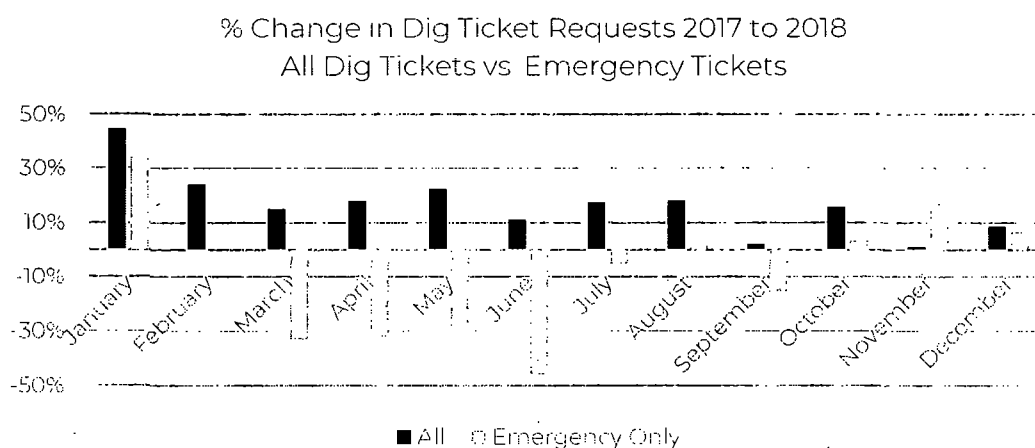
³ Through the Aldermanic Menu Program, the City gives each alderman control of \$132 million annually to fund residential street infrastructure projects in their ward, such as street and alley resurfacing, street lighting, speed humps, and sidewalk replacement. OIG previously audited CDOT's administration of the Aldermanic Menu, finding that the program underfunded all 50 wards relative to their infrastructure needs and created significant funding disparities between wards. We also found that aldermen spent Aldermanic Menu Program funds for non-infrastructure purposes. The April 2017 report is available on the OIG website <https://igchicago.org/2017/04/20/cdot-aldermanic-menu-program-audit/>

⁴ Municipal Code of Chicago, Chapter 10-21

CDOT has hired four staff charged with enforcing the Chicago Underground Facilities Damage Prevention Ordinance. These include a Coordinator of Street Permits, Engineering Technician, and two Field Service Specialist inspectors, all of whom work under 811 Chicago.

The Department credits these changes with a reduction in emergency dig ticket requests. A report from CDOT's permitting system shows that the number of requests for emergency dig tickets declined by 10% between 2017 and 2018, while the number of dig tickets overall climbed by 16%.⁵ Figure 2 below depicts the year-over-year change in overall and emergency tickets on a monthly basis.

FIGURE 2: OVERALL ACTIVITY UP, EMERGENCY REQUESTS DOWN



Source: CDOT permit data

CDOT stated that the data suggests "CDOT has increased project coordination while reducing circumvention of the standard associated permitting processes."

⁵ Overall dig ticket requests increased from 257,158 in 2017 to 297,406 in 2018. Emergency dig ticket requests declined from 9,363 in 2017 to 8,470 in 2018.

FINDING 2:

**CDOT DID NOT CONSISTENTLY HOLD PUBLIC
WAY OPENING PERMITTEES ACCOUNTABLE
FOR POOR-QUALITY RESTORATION WORK.**

OIG RECOMMENDATION #6:

OIG recommended that CDOT develop a strategy to align its operational goals with the Municipal Code of Chicago (MCC) requirement to inspect all public way restorations.⁶ To that end, CDOT should conduct a staffing analysis to determine how many inspectors would be needed to meet this mandate, and work with the City's Office of Budget and Management to staff this function appropriately. While developing this strategy, and in light of the limited resources available, CDOT should immediately implement processes for random and risk-based restoration inspections in order to provide at least the possibility that any particular restoration will be subject to inspection.

STATUS OF CORRECTIVE ACTION: PENDING IMPLEMENTATION

CDOT engaged a team of Mayoral Fellows to review procedures, challenges, and improvement opportunities related to its public way inspections function.⁷ The Fellows proposed that CDOT create basic guidelines for prioritizing street cut inspections based on risk. They also developed a rudimentary hierarchy for doing so, which included consideration of several factors that influence how inspections are prioritized: e.g., the locations of restorations, the severity of restoration failures, special aldermanic requests, and additional public way issues that inspectors encounter by happenstance in the field. The Fellows further noted that improvements to the City's 311 service request and customer relations management system may allow CDOT to prioritize complaint-based inspections more effectively.

However, the Fellows did not develop an actionable rubric for prioritization, stating, "Ultimately, senior CDOT staff and frontline inspectors will need to collaboratively agree to a set of rules and guidelines that drive prioritization." The Fellows' analysis did not

⁶ MCC § 10-20-155 states, "All work done under authority of the permit required by this article shall be inspected by a field service specialist designated by the commissioner of transportation."

⁷ Information on the Mayor's Office Fellowship Program is available at

https://www.chicago.gov/city/en/depts/mayor/supp_info/mayorsfellows.html, accessed April 22, 2019.

include consideration of random inspections alongside a risk-based program. We once again encourage CDOT to consider performing inspections of randomly chosen street cut restorations in order to make clear to its stakeholders that all restorations have a chance of being inspected. CDOT stated that it is currently drafting inspection procedures that align with the Fellows' recommendations.

The Mayoral Fellows also found a considerable gap between CDOT's mandate to inspect all street cut restorations and its current inspection capacity.⁸ The Fellows determined that since 2005, the number of inspectors dropped by nearly half while the number of public way construction permits sharply increased, resulting in approximately 80,000 street cut restorations going uninspected. While the analysis did not determine the optimum number of inspectors, it showed that the existing staffing level was insufficient. Further, a partial cost-benefit analysis performed by the Fellows showed that, "the increased citation collection from hiring additional inspectors more than pays for accrued staffing costs along with significant, unquantifiable legal and public safety benefits." CDOT subsequently requested permission from the Office of Budget and Management (OBM) to hire six additional inspectors in 2019. OBM approved two additional inspector positions, which CDOT has filled.

CDOT stated that it now employs 26 public way inspectors. It is unable to determine how many inspections it completes per year, but anticipates that it will be able to do so following its implementation of a new electronic inspections and citations system.

OIG RECOMMENDATION #7:

OIG recommended that CDOT schedule, record, and track all inspections and citations by associated permit number in Hansen 8, rather than in paper records, to reduce redundant paperwork, minimize the chance of errors in the database, and increase the total number of inspections per inspector.

⁸ OIG did not review the Mayoral Fellows' analysis for accuracy. We report on it here as documentation that CDOT provided to substantiate its responses to our follow-up inquiry.

STATUS OF CORRECTIVE ACTION: PENDING IMPLEMENTATION

While CDOT has acknowledged the need to begin scheduling, recording, and tracking public way compliance electronically, it is not currently doing so. CDOT stated that, in collaboration with the Department of Innovation and Technology, it is developing a mobile application "specifically designed to schedule, manage, record, and track inspections electronically" using tablets in the field. This application, known as Infor Public Sector (IPS) Mobile, is expected to interface with CDOT's new IPS 11 application, which replaces Hansen 8. CDOT stated that the application is in the early stages of development.

CDOT acknowledged that its current, paper-based system for issuing citations is inefficient and error-prone. It reported that, of the nearly 5,000 citations its inspectors submitted to the Department of Administrative Hearings (DOAH) for adjudication between January 2017 and May 2018, hearing officers dismissed 1,385 as non-suited.⁹ These cases could represent lost revenue for the City. CDOT anticipates that streamlining its inspection and citation workflows into one mobile application will help mitigate errors that lead to non-suited citations.

⁹ According to DOAH's Glossary of Terms, a nonsuit "means the City attorney or the enforcing department has decided not to proceed to a hearing to enforce the ticket or a particular count of the ticket. The Administrative Law Judge will not decide the case pertaining to a charge that is non-suited. In some cases, the City attorney may decide to re-file the citation and proceed to hearing at a later date." https://www.chicago.gov/city/en/depts/ah/supp_info/glossary_of_terms.html, accessed April 22, 2019

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AUTHORITY

OIG's authority to produce reports of its findings and recommendations is established in the City of Chicago Municipal Code §§ 2-56-030(d), -035(c), -110, -230, and 240.

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