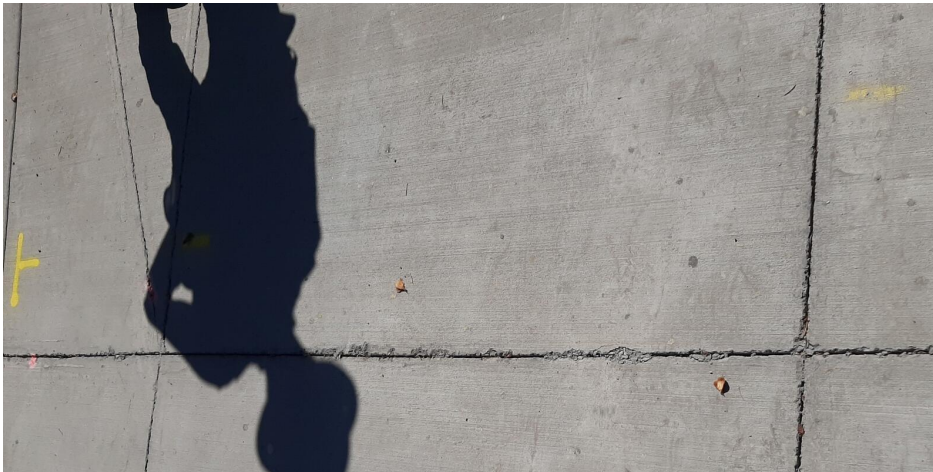




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## Portland Bureau of Transportation: Process in place to ensure capital projects meet specifications, but there were ways around it

Report



Transportation had a formal process to document inspections before making payments, but staff were able to work around steps. Supervisors didn't have procedures to identify allowable exceptions. We make recommendations to ensure staff follow the process and that supervisors are aware of exceptions.

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### Summary

Our audit objective was to determine whether the Portland Bureau of Transportation had effective controls to ensure that capital projects met specifications before payments were issued. We looked at all payment approvals generated between April 1, 2021 (the date the Bureau incorporated a new process to improve oversight of certain inspections) and September 26, 2022 (the date we gathered records for this audit). These payment approvals were for approximately \$13 million in payments to contractors.

We found that the Bureau had a formal process in place to document approvals before payment, but that staff had workarounds to avoid the process. Management was not monitoring the paynote process to ensure signatures conformed to policy. There were no reports in the e-Builder system to help Managers distinguish allowed exceptions from problematic ones or to see whether signoffs were occurring as they should.

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### Topics

[Transportation and roads](#); [City projects](#); [Construction and development](#)

Inspections are conducted to ensure that construction work complies with plans, specifications, permits, and other regulations. Quality inspections prevent errors that could result in money wasted on tearing out and reconstructing transportation infrastructure. Though we did not identify missed or falsified inspections, the analysis shows that staff can avoid rules and contractors could be paid without appropriate signoffs.

We made recommendations to strengthen management oversight in the e-Builder system and to make sure that projects passed inspection before contractor payment.

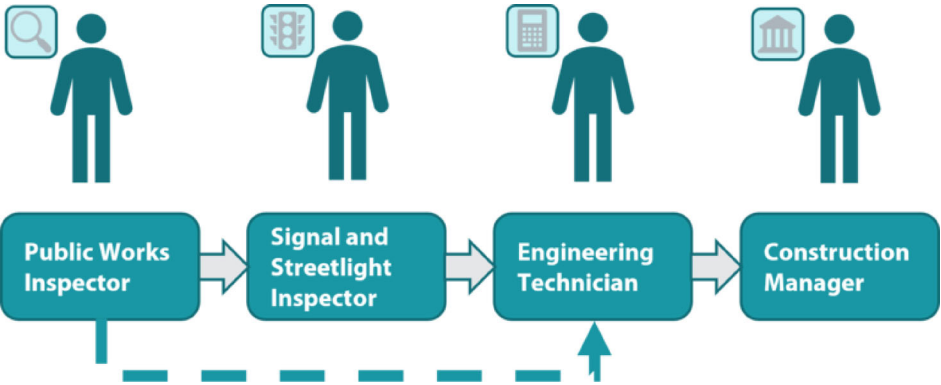
## Background

The Portland Bureau of Transportation uses the paynote process to ensure that capital projects such as sidewalks, streets, and traffic signals are inspected before issuing payments. The Bureau uses project management software called e-Builder to track project information, finances, and schedules. The paynote process is only one of the processes tracked in e-Builder. Other processes Transportation tracks in e-Builder include workflows for parking enforcement and towing, public works permitting, and contracting.

### Staff can work around processes meant to ensure projects meet specifications before payment

Contractors can be paid without approvals. Though we did not identify exceptions where inspections did not take place, staff can avoid rules intended to ensure projects conform to specifications before payment.

In the paynote process separate City employees confirm that services were received, and inspections conducted before a payment is generated.



The **Public Works Inspector** initiates payment and is responsible for physically measuring the item. Their signoff means they verified the work was completed per specifications.

The **Signal and Streetlight Inspector** may initiate or verify payment for items related to signal and street lighting. This step is skipped when the items are not related to signals, streetlights, or other projects involving electricity. Their signoff means they have verified installation conforms to contract specifications and electrical code.

The **Engineering Technician** performs a quality assurance check of calculations. Their signoff means they have verified that proper quality and quantity documentation is attached to the payment approval.

The **Construction Manager** has overall authority for contract administration. They are accountable for ensuring that the contractor has performed work according to contract terms. Their signoff means they have witnessed timely and proper payments under the terms of the contract.

We found missing signatures, conflicts, and timing exceptions that were not permitted by policy. Out of 4,869 paynotes processed within the audit scope we found:

**Missing Signoffs**

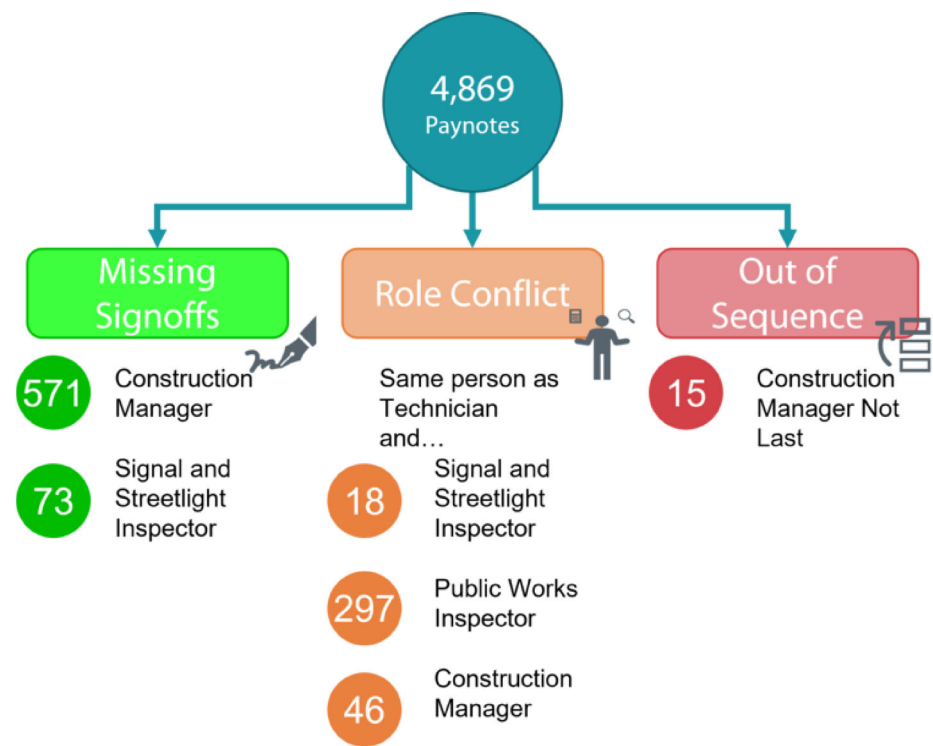
- 73 missing Signals and Streetlight Inspector reviews that were required by the e-Builder process.
- 571 missing Construction Manager reviews that were required by the e-Builder process.

**Role Conflicts**

- 18 instances where the Technician signing off was the same person as the Signal and Street Light Inspector.
- 297 instances where the Technician signing off was the same as the Public Works Inspector.
- 46 instances where the Technician signing off was the same as the Construction Manager.

**Steps Out of Sequence**

- 15 instances where the Construction Manager signature was before the others instead of last.



The Bureau provided explanations for why some of these exceptions occurred. Bureau management considered these to be reasonable explanations for exceptions to the standard paynote process.

- Some of the cases of the Technician signing off for a Public Works Inspector were for lump sum bid items or to add or delete a bid item. According to management, the Technician can sign off on these items because they either did not require a field inspection or were only administrative.
- Some of the missing Signal and Streetlight inspections were from paynotes approved before a process was put in place to identify missing signatures.
- Construction Manager signoffs happened first when they found an error and asked for a second review but then didn't sign off again after corrections were made.

There were also inconsistent practices among Construction Managers. The paynote process requires a Construction Manager signature, but some Technicians and Managers decide informally that a Technician can sign off for a Manager. In other cases, the Bureau explained that a Technician might sign off for a Construction Manager because the Manager was taking too long to sign and the Technician needed to forward the process along to pay the contractor on time and not because it was an allowed exception.

Bureau management was not monitoring the paynote process to ensure that signatures conformed to policy. These cases would be easier to identify and track if there were reports in e-Builder to identify exceptions. Supervisors could not use reports from e-Builder to identify exceptions and distinguish allowed ones from problematic ones because there were no reports. Additionally, no one was assigned to check the system to see that signoffs were occurring as they should.

## **Paynotes did not tie to daily inspection reports**

The Bureau cannot easily use daily inspection reports as documentation to verify that Inspectors appropriately signed off on paynotes because field inspection reports did not include the day the inspection occurred.

At the beginning of this audit, we identified a risk that Public Works Inspectors could approve payments without performing inspections if they got behind or even if they were offered a bribe. This risk is high impact because it could mean that infrastructure did not conform to plans, specifications, permits, and other regulations.

"The daily [inspection] report is the most important piece of paper for a project. In most cases, it will be read and filed and never referred to again. But months or even years later, it may be the only City owned information that can be used to resolve disputes or claims."

*- Street Construction Inspector's Manual, Portland Bureau of Transportation*

To ensure that Inspectors were not falsifying their sign offs, we developed a test to see if we could tie inspection dates listed in paynote field inspection reports to daily inspection reports. According to the Bureau's Inspector Manual, Inspectors should complete a daily inspection report for each day they are on site.

Daily inspection reports are a record of what occurred on the construction site on a day an Inspector was there. According to the Inspector Manual, Inspectors are required to complete a report every day (whether the contractor is working or not) and the report should include contractor personnel, hours worked, and quality of work performed.

Field inspection reports are associated with a paynote. They include information such as a description of the item installed, the date it was installed, who conducted the inspection, and documentation of installation such as photos and Inspector notes.

There were not daily inspection reports associated with some paynotes despite criteria that there should be a daily inspection report for every day an Inspector was on site. In a random sample of 25 payment approvals, we were unable to find 9 daily inspection reports for the installation days listed on the field inspection report. Projecting out to the full population, this is an estimated 972 to 3,284 of the 5,910 field inspection reports within the audit scope.

Our test shows that there was not a daily inspection report for more than 15 percent of field inspection reports. This indicates the rate at which payments could be approved without performing inspections.

There may be valid reasons for some of the missing daily inspection reports. Bureau management explained that some of these field inspection reports may have been associated with the kinds of allowable exceptions identified in the first section of this report, like when a Technician can signoff because the items did not require a field inspection.

The Bureau cannot easily use daily inspection reports as documentation for field inspection reports to verify that inspectors appropriately signed off on paynotes because field inspection reports did not include the day the inspection occurred.

Management also described situations we found problematic. These were missing daily inspection reports that deviated from the procedures in the Inspector's Manual. For example, they said that Inspectors did not need to be on site every day. They said that there were times when an Inspector might not complete a daily inspection report, such as when workload was too high.

The Bureau prefers to use supervision to ensure Inspectors were not falsifying reports rather than using daily inspection reports as evidence that an Inspector was on site. They said that it wasn't impossible to falsify an Inspector signoff, but that it would be a serious violation and grounds for discipline. Adding one more tool, the ability to tie field inspection reports to daily inspection reports, to the supervisor's kit would further reduce the risk of false field inspection reports.

## Conclusions and Recommendations

The Portland Bureau of Transportation had a formal process in place to ensure that staff inspect and approve capital projects before generating payment. However, there was no way to identify allowed exceptions and variations to the process in e-Builder reports. Inspections guarantee that capital projects conform to plans, specifications, permits, and other regulations. They also help avert mistakes that could cause wasted money spent on removing and rebuilding sidewalks, streets, or other infrastructure. Though we did not identify exceptions due to inspections not taking place, our analysis shows that staff can avoid rules and contractors could be paid without appropriate approvals.

**To ensure that capital projects are built to comply with plans, specifications, permits, and other regulations, the Transportation bureau should:**

1. Incorporate allowed exceptions into the e-Builder process so that management can identify them.
2. Create a report of paynote exceptions and have supervisors follow-up with staff who avoid controls at least annually.
3. Add a field for the day the inspection occurred to the field inspection report.

## The Transportation Commissioner and Bureau Director agreed with our recommendations

View the audit response from Director Tara Wasiak.

## How we did our work

Our audit objective was to determine whether the Portland Bureau of Transportation had effective controls to ensure that capital projects pass inspection before payments. We looked at payment approvals generated between April 1, 2021 (the date the Bureau incorporated a new process to improve oversight of certain inspections) and September 26, 2022 (the date we gathered records for this audit).

To accomplish our objectives, we:

Interviewed staff involved in the paynote process including Inspectors, Technicians, and Construction Managers.

- Observed an Inspector on site while conducting an inspection.
- Reviewed rules, policies, and best practices including the Inspector Manual, Construction Specifications, and workflows built into e-Builder.
- Reviewed payments in SAP, the City's financial system enterprise software, to determine whether all contractor payments were associated with a paynote.
- Reviewed a report of all paynote approvals from e-Builder within the audit scope to determine whether signoffs were missing, whether one person was performing more than one role, and whether steps took



place in the right order. We reviewed the entire population of approvals within the audit scope.

- Reviewed a random sample of 25 field inspection reports to determine whether there was an associated daily inspection report. We chose a random sample so that we could project to the entire population. We reported projections to the full population of 5,910 reports in the Audit Results section of the report.

The City Auditor added this audit to the fiscal year 2022-23 schedule to test whether the paynote process was working as it should. The topic originally came in as a fraud hotline tip, but the Auditor decided to conduct an audit instead.

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

Audit Team: Elizabeth Pape, Performance Auditor II