



## Internal Audit Report

# Construction Progress Payment Audit

Report Number: 2019 - 04 | Report Date: October 17, 2019

# Executive Summary

Audit Report No.: 2019 - 04

October 17, 2019

**WE AUDITED** the current construction progress payment processes to assess the controls in place over the monitoring of work progress and review of supporting documents to determine completeness and accuracy.

**AUDIT OBJECTIVE** was to determine whether ST (Sound Transit or agency) has effective controls over the construction progress payment process in compliance with contractual agreements and applicable agency policies and procedures. Specific objectives included ensuring:

- Proper monitoring of the work progress to justify the payment requested.
- Proper review of progress payment supporting documents to determine completeness and accuracy.

The audit examined management controls in place as of May 2019.

*Ganchimeg Byambaa*

Ganchimeg Byambaa  
Acting Director of Internal Audit

## WHAT DID WE FIND?

In alignment with the voter-approved transit plans, the agency has been delivering high capacity transportation capital projects throughout the three-county area within the agency authority. Under the plans, the agency capital program has expanded various modes of transit in the region over the last two decades: commuter rail (Sounder), light rail (Link), and regional express bus system (ST Express).

Design, Engineering & Construction Management (DECM) is responsible for final design, engineering, and construction management for all major capital projects. One of the key areas of construction management relates to agency processes to compensate contractors for the percentage of work completed and materials received to the point of each invoice. As of May 2019, the agency has processed an estimated \$7 billion in progress payments over the last five years.

The agency has uniformly defined processes through policies and procedures to ensure prompt payments, while verifying the accuracy and completeness of the invoice and its accompanying document. The process is integrated and involves multiple teams under DECM which conduct, among many, routine inspections of all construction activities, critical meetings with key stakeholders, and concurrent reviews of supporting documentation.

The audit concluded that management controls over construction progress payment process are effective to reasonably ensure proper monitoring of the work progress to justify the payment requested; and adequate review of progress payment supporting documents to determine completeness and accuracy.

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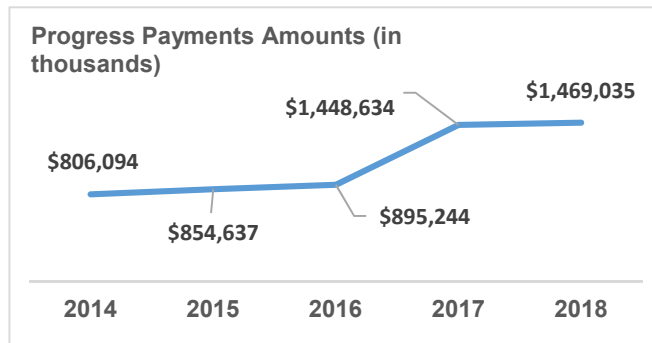
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## Background

In alignment with the voter-approved transit plans, the agency has been delivering high capacity transportation capital projects throughout the three-county area within the agency authority.<sup>1</sup> Under the plans, the agency capital program has expanded various modes of transit in the region over the last two decades: commuter rail (Sounder), light rail (Link), and regional express bus system (ST Express).<sup>2</sup>

Design, Engineering & Construction Management (DECM) is responsible for final design, engineering, and construction management for all major capital projects, as well as right-of-way acquisitions. One of the key areas of construction management relates to progress payments based on the percentage of work completed and materials received. The agency payment process is a recurring procedure - typically monthly - and involves millions of dollars. As of May 2019, the agency has incurred an estimated \$7 billion over the last five years.

Project	Amount	%
Link	\$ 6,106,891,773	87%
Sounder	690,589,632	10%
ST Express	200,697,299	3%
<b>Total</b>	<b>\$ 6,998,178,704</b>	<b>100%</b>



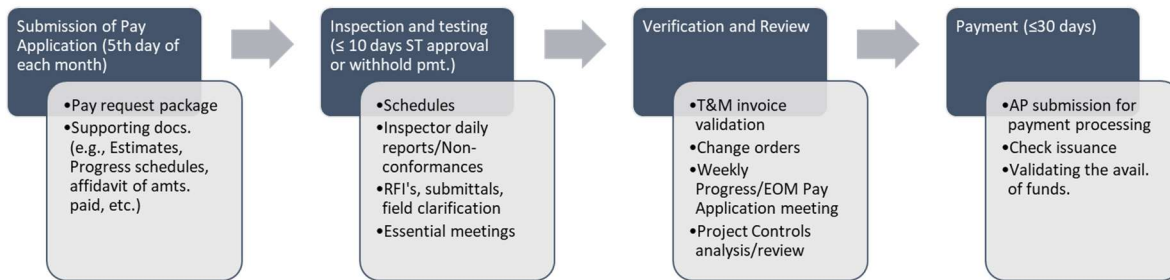
Source: May 2019 ST's Work Breakdown Structure (WBS) report; and ST Single Audit Reports Calendar Year (CY) 14~18.

Agency Policy Program Control Policies & Procedures (PCPP)-07 Progress Payments and Invoices, as well as Contract General Conditions require prompt payments. Further, in accordance with Revised Code of Washington (RCW) 39.76.011, payments must be made within 30 days of receiving the properly completed invoices or receipt of goods or services, whichever is later. Late payments are subject to an interest of 1% per month on the overdue balance. As such, the agency must timely process progress payments, while ensuring pay requests are billed accurately to reflect the work performed and materials used.

ST's progress payment process is an integrated process. A number of teams from multiple divisions under DECM review applicable information and scrutinize all contractor submitted materials for each payment request. The teams conduct routine inspections of all construction activities; facilitate critical meetings with key stakeholders; and perform concurrent reviews of supporting documentation to justify payment request of work progressed.

<sup>1</sup> RCW Chapter 81.112 applicable to the Central Puget Sound Regional Transit Authority, ST was formed to implement a high capacity transportation system throughout the parts of King, Pierce, and Snohomish counties.

<sup>2</sup> Funding for ST's operations and Capital Program comes from local retail sales and use tax, motor vehicle excise tax (MVET), rental car tax, property tax, federal and state grants, passenger fare revenues, etc.



Regardless of the project delivery method, the processing of progress payments is uniformly defined by a range of policies and procedures.<sup>3</sup> Specifically, PCPP-07, Construction Manual, and Contract General Conditions are the primary guidelines for the review, approval, and processing of progress payments and invoices. Moreover, agency requirements mandate capital projects to undergo: (1) Quarterly risk assessments as part of ST’s Risk and Contingency Management Plan (RCMP) for identifying and managing all risk (e.g., site conditions, delays, and availability of funding impacting schedule and resources) throughout the duration of the project; and (2) periodic audits and surveillance during the construction phase to verify that the work, process, and/or product is in conformance with established requirements.<sup>4</sup>

## Audit Objectives

To determine whether ST has effective controls over the construction progress payment process in compliance with contractual agreements and applicable agency policies and procedures. Specific objectives included ensuring:

- Proper monitoring of the work progress to justify the payment requested.
- Proper review of progress payment supporting documents to determine completeness and accuracy.

## Scope and Methodology

We conducted this audit in accordance with the Generally Accepted Government Auditing Standards and International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objectives.

<sup>3</sup> As of July 30, 2019, there are 22 PCPPs related to the management of capital projects (e.g., scheduling, change notices and change orders, construction management processes, etc.).

<sup>4</sup> ST Quality Assurance (QA) staff (e.g., Document Control Coordinator [DCC], external auditors, etc.) self-initiates reviews on the following: Surveillance of the operations to determine methods and procedures of the program are being properly applied; Verification inspection to evaluate quality of fabricated or manufactured items for the permanent works; and compliance with the QA program plan of contract documents.

We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objectives.

We gained an understanding of the construction progress payment process at the agency and department/division level through data analysis, observation, documentation reviews, and personnel interviews. We identified risks in the processes and assessed management controls in place to mitigate those risks. Based on the assessment of management control effectiveness, we determined to focus on controls over ST's monitoring of the work progress to justify the payment requested; and review of progress payment supporting documents to determine completeness and accuracy as of May 2019.

We examined reports, policies and processes as of May 31, 2019.

1. To determine whether the agency has effective controls to monitor the work progress to justify the payment requested, we performed the following procedures:
  - a. Selected five contracts, valued at \$1.2B (or 7%) of the total \$17.5B approved budget for the period examined, based on project delivery method, project amount, and duration of projects.<sup>5</sup>
    - i. Verified through firsthand observation four on-site progress and pay application meetings to determine the level of management's review of work performed for the period of certification. Reviewed subsequent meeting minutes for evidence of on-going monitoring of progress and constructions activities per agency policies (e.g., attendee names, assigned actions, schedules, etc.).
    - ii. Conducted 12 interviews and process walkthroughs to determine if controls were working effectively as intended. Individuals interviewed included Resident Engineers (RE), Construction Managers, Project Managers, Senior Project Control Leads, and Change Management Coordinators.
    - iii. Examined documentation to determine whether the agency verifies project progress sufficiently to warrant payment. Documents reviewed included IDRs, RE reports, non-conformances, audit assessments/surveillance reports, etc.
2. To determine whether the agency has effective controls to ensure proper review of progress payment supporting documents to determine completeness and accuracy, we performed the following:
  - a. Reviewed and analyzed five pay application packages and corresponding supporting documentation against selected criteria (i.e., progress payments, inspection/testing, T&M invoices and records, communications, change management, etc.) to

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<sup>5</sup> Projects selected: (a) East Link (E320 [DBB] - \$8.7M; E335 [GC/CM] - \$8.2M; and E360 [DB] - \$5M); (b) Northgate (N160) [DBB] - \$5M; and (c) Hilltop Tacoma (T100) [DBB] - \$3.2M.

determine if controls were in place to prevent and detect improper payments.

- i. Performed analysis of 45 T&M invoices and records (e.g., daily sheets, cost proposals, etc.) for accuracy of prices, quantities, and calculation in agreement with supporting documentation submitted as part of the progress payment (i.e., Provisional Sum Authority [PSA]s, scheduled of values [SOV]s, etc.).
- ii. Verified an additional 21 PSAs <sup>6</sup> and 11 change orders (contract modifications) for the completeness of detailed backup documentation and proper approvals.

## Conclusion

Management controls over construction progress payment process are effective to reasonably ensure proper monitoring of the work progress to justify the payment requested and to adequately review of progress payment supporting documents to determine completeness and accuracy.

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<sup>6</sup> Provisional sums are a required pay item within an established scope and budget that cannot be clearly defined during design. Work under provisional sums is typically performed under T&M requirements of the contract.