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TO: FINANCE AND CORPORATE SERVICES COMMITTEE

PREPARED BY AND KEY

CONTACT:

S. MACGREGOR, DIRECTOR OF INTERNAL AUDIT EXT# 5452

SUBMITTED BY: S. MACGREGOR, DIRECTOR OF INTERNAL AUDIT

GENERAL MANAGER

APPROVAL:

N/A

CHIEF ADMINISTRATIVE OFFICER APPROVAL:

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

DATE: SEPTEMBER 14, 2021

SUBJECT: 2021 YEAR TO DATE INTERNAL AUDIT STATUS REPORT

WARD: ALL

RECOMMENDED MOTION

That the 2021 Year to Date Internal Audit Status Report be received as information.

PURPOSE & BACKGROUND

- 2. The purpose of this staff report is to provide the 2021 Year to Date Internal Audit Status Report.
- 3. The following report provides a summary of the Internal Audit activities performed from January to August 2021:

#	Project	Focus	Status
1	Capital Project Payments	Controls	Complete
2	Continuous Auditing	Compliance	Complete
3	PCard and Expense Reimbursement	Compliance	Complete
4	Fraud Prevention Month	Entity Level Controls	Complete
5	Fraud & Wrongdoing Program Oversight	Consulting	Ongoing

4. In addition to the projects noted above, Internal Audit conducted 4 confidential investigations and provided consultations to departments as required.

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

ANALYSIS

CAPITAL PROJECT PAYMENTS

Background

- 5. The City's Infrastructure department provides project management for Vertical (primarily involving treatment plants and pump stations), Linear (assets within the right-of-way such as roads) and Developer and Special Projects (developer and large or complex linear projects).
- 6. In 2019 and 2020, the City's Vertical, Linear and Developer and Special Project branches of the Infrastructure department delivered approximately \$122 million in capital projects for the construction of infrastructure including roadways, watermains, sanitary sewers, storm sewers, bridges and parking.
- 7. Contracts for capital projects are typically issued publicly for open competition. The successful bidder is notified, and a formal tender contract is executed outlining the terms and scope of the work to be performed by the Contractor. Construction contracts are issued as either lump sum or unit-price contracts. Modifications to the original scope of the contract are formalized by change orders. Change directives are written instructions signed by the City directing the Contractor to proceed with a change in work. When change directives are used, a change order is issued at a later date to finalize details of the change.
- 8. Changes to construction contracts are common due to unknown factors when the contract is awarded or if changes to the work or design are required after award of contract. Effective management of contract changes through change directives and change orders is necessary to ensure appropriate change management on contracts.
- 9. Infrastructure reports a Key Performance Indicator (KPI) each year for Change Orders as a % of Total Tender Value. From 2019 to 2020 the reported actual, planned and projected rates for this KPI were between 5% and 8% which would indicate the project was well planned.

Objective

10. To review the processes and controls related to the approval of capital project payments.

Methodology

- 11. Our scope of review included City Infrastructure capital projects in construction between 2019 and 2020 (the "Period of Review"). The review of capital project payments included both construction progress payments and change orders.
- 12. The following activities were performed:
 - Meetings with staff in Vertical, Linear and Developer & Special Projects in the Infrastructure department;
 - b) Reviewed available City policies and procedures for Construction capital payments including the Standard Operating Procedure for Progress Payments, the Contract Administration Manual and Change Control Board Guidelines;
 - Judgmentally selected 3 capital projects in Infrastructure during the Period of Review based on the dollar value of construction costs, type of construction (linear, vertical, special project) and stage of completion;
 - d) Tested a sample of progress payments and change orders for the 3 selected projects to assess compliance with City policies and procedures for approval of capital payments; and

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

- e) Analyzed the City's SAP financial data related to Infrastructure capital projects.
- 13. We reviewed only payments to General Contractors on awarded capital project construction tenders for the selected capital projects and did not review payments to other parties nor internal cost allocations. We did not test processes and controls in Finance related to the disbursement of capital project payments after Infrastructure department approvals as these controls were included in our previous 2018 review of Accounts Payable.

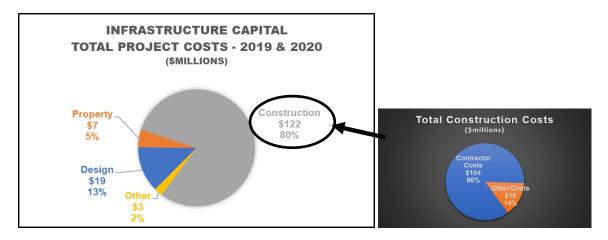
Conclusion

- 14. The Vertical, Linear and Developer & Special Projects branches of Infrastructure have implemented procedures to ensure the validity and appropriateness of capital payments, but there has been considerable change in this business area in recent years and these procedures have not been fully updated to reflect organizational changes.
- 15. Based on the work performed, Infrastructure must strengthen compliance with policies and procedures related to the approval of capital project payments. The implementation of Internal Audit's recommendations will further improve the City's controls over capital project payments.

Findings

Capital Project Costs

16. Infrastructure department capital projects are comprised primarily of construction, engineering, and property costs. As set out in the graph below, the largest project cost in capital projects is construction contractor costs.



- 17. For our review, we identified capital projects in the Vertical, Linear and Developer & Special Project branches during the Period of Review. We selected a judgmental sample of 3 projects with a total spend of \$65 million in construction costs during the Period of Review. The 3 projects selected included 1 lump sum and 2 unit-price construction contracts. Our focus was specifically on Contractor construction costs for these projects to conduct testing of compliance with City policies and procedures.
- 18. Our testing of payments covered 53 progress payments which totaled \$58 million and was inclusive of 77 change orders with a value of \$8.8 million.

Progress Payments

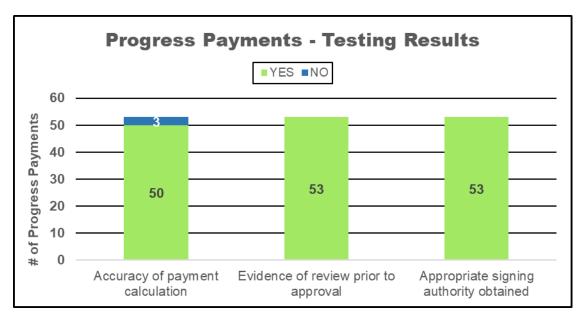
19. Progress payments are typically paid on a monthly basis to the Contractor throughout a capital construction project. The process for the approval of progress payments is set out in the City's



File: F00 Pending #:

Construction Progress Payment Standard Operating Procedure and the Contract Administration Manual. The Engineering Inspector and Contractor measure and agree to quantities and the quantities are input into the progress payment template. Changes are included in the progress payment once all parties have signed and agreed to the change order or change directive. The Technical Clerk prepares the payment, which includes a manual verification of the quantities and totals, and assembles a progress payment for distribution to Infrastructure approvers and Finance. The progress payment detail is compiled in a Microsoft Excel spreadsheet and manually updated by the Technical Clerk with quantities and pricing.

20. The results of our progress payment testing are set out below:



21. Our testing found 50 (or 94%) of the 53 progress payments were accurately calculated and 3 (or 6%) of the progress payments contained inaccuracies at the time of payment. Discrepancies in the progress payment calculation were caused by errors in the spreadsheet formulas and were resolved by the project teams once identified prior to Internal Audit's testing. Our testing found all 53 (or 100%) of the progress payments contained evidence of review prior to change order approval and obtained the appropriate signing authority.

Contract Changes

22. The City uses two key documents for formalizing changes to the scope of the original contract: change directives and change orders. Change directives provide written direction from the City to Contractors to proceed with changes from the original scope of the contract. Change orders are used to amend the contract to reflect the change in work, specifying the terms of payment and extension of time for the work. Change orders can also be used to amend contracts to reflect decreases or credits for deleted work scope. The Contract Administration Manual and the Change Control Board Guidelines both state that a change directive or change order must be approved prior to commencement of a change in work.

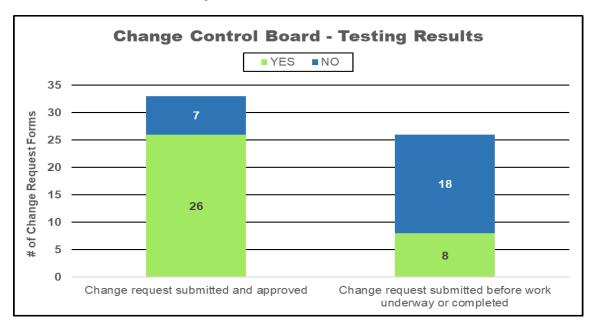
Change Control Board

23. A key control implemented in 2020 by the Infrastructure department is the creation of the Change Control Board (CCB). As set out in the CCB Guidelines, which were formalized for the department in June 2020, the purpose of the CCB is to provide opportunity for pre-consultation and/or as to whether there is a "Change" and to approve a "Change" and its value. The CCB is intended to promote timely and consistent change management processes.



File: F00 Pending #:

- 24. The CCB Guidelines define a "Change" as a change to scope, change to a contract, change to a schedule, or change to a contract price. The CCB consists of the Director and the Managers of the Vertical, Linear and Developer & Special Project branches (the Project Controls Manager is an alternate) who authorize "Changes" to capital projects. The CCB ensures rigorous change management on capital projects and works to control changes to scope and cost while bringing consistency in change management across the department.
- 25. In addition, the CCB Guidelines state that:
 - All changes are to be approved prior to initiating any work associated with the proposed change;
 - No change will be considered retroactively by the CCB. However, it is recognized that there
 may be an emergency situation where a timely decision for a change is required;
 - In this rare situation, the Manager's approval may be sufficient. The exception will be dependent upon urgency and even in these cases communications to contractors to accept the change and describe how the change will be valued (i.e. time and materials etc.) is required prior to undertaking work and commitment by all to complete the documentation as soon as practical.
- 26. Construction Contractor changes anticipated to be greater than \$10,000 must be submitted to the CCB in a Change Request Form with supporting documentation. As set out below, our testing identified changes which were not submitted to the CCB, or were not submitted to the CCB prior to the associated work commencing.



27. 33 change orders tested in the Period of Review were greater than \$10,000 and fit the criteria requiring Change Control Board approval. The graph above on the left shows 26 (or 79%) of the 33 change orders contained documentation of a Change Request Form submitted to and approved by the CCB. 7 (or 21%) of the 33 change orders did not contain documentation of a Change Request Form. In some cases, we were advised the project team understood that particular types of changes did not require CCB approval however these items are not noted as exclusions in the CCB Guidelines. Other changes without CCB approval related to situations where meetings with members of the CCB took place but were not formally documented or situations where the requests were not initiated by the project team.



File: F00 Pending #:

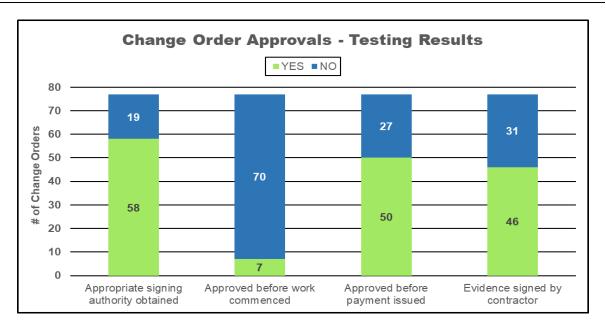
28. The graph on the right shows that only 8 (or 31%) of the 26 Change Request Forms included in our testing were submitted before work was underway or completed and 18 (or 69%) were submitted after the associated work was underway or completed. The CCB Guidelines identify that in rare situations, an emergency may require immediate action before CCB approval can be obtained but documentation should be completed as soon as practical. In our testing we noted delays anywhere from 2 weeks to 16 months between work commencing and documented approval from the CCB. Certain long delays relate to changes that occurred before the CCB was implemented, and the details of the change were in dispute with the Contractor, and were brought to the CCB before the final change order was executed.

Change Orders

29. Change orders can result from various situations once a capital project is underway and the type of work, quantity of work, or work conditions differ from estimations used in the initial contract tender. The table below summarizes reasons identified in the sample of 26 Change Request forms tested:

Reason for Change	#	%
Scope	10	38%
Scope & Contract Price	5	19%
Contract Price & Other	2	8%
Other	7	27%
No Option Selected	2	8%
Total	26	100%

- 30. The most common reason for a change request to be submitted to the CCB is a scope change as noted in 10 (or 38%) of the 26 change request forms tested. When considered along with the 5 additional change requests resulting from scope and contract price changes, for a total of 15 changes involving scope, it forms nearly 58% of the total change request forms tested. The remaining reasons for change requests were contract price, other or were not identified in the change request submission documentation. Detailed description of the proposed change and the justification for proposed change are included in the change request submission documentation. The CCB undertakes an analysis of the reasons for change in addition to assessing the validity of the change and the value of the change. However, the department does not have a formal documented process to identify potential trends in the root causes of change orders across the department.
- 31. The results of our testing for the approval of change orders are set out below:



- 32. Of the 77 change orders tested in the Period of Review, 58 (or 75%) contained appropriate departmental signing authority. 19 (or 25%) did not contain the appropriate departmental signing authority the largest of which was valued at approximately \$285,000. This largest change was however approved by the CCB prior to the execution of the change order and the change order was processed prior to undertaking the work. 13 of the 19 change orders without appropriate department signing authority were approved by the CCB and we were advised it was understood by the project team that the appropriate approvals were obtained by the CCB approval and therefore the change order did not need to be approved separately. The remaining 6 change orders did not contain approval from the CCB or the appropriate departmental signing authority. We note that appropriate corporate financial signing authority was obtained for payment of the 77 change orders tested.
- 33. The Contract Administration Manual specifies the appropriate signing authorities for change orders as follows:
 - Construction Engineer / Senior Construction Engineer ≤ \$5,000,
 - Manager of Design & Construction > \$5,000 ≤ \$50,000,
 - Director of Engineering > \$50,000 ≤\$500,000
- 34. Of the 77 change orders tested, only 7 (or 9%) change orders were approved before the associated work commenced. 70 (or 91%) change orders were approved after the work commenced. 17 of the 70 change orders did, however, have a Change Directive issued by the City prior to the work commencing. Our testing identified situations where work associated with change orders is taking place before the approval documentation is formalized. The Infrastructure team identified the following reasons why change orders are not approved before the associated work commences:
 - The validity of a change is in dispute between the Contractor and the Owner;
 - The cost and time extension of a change is in dispute between the Contractor and the Owner;
 - The change is due to a claim brought about by the Contractor and the resolution of the claim is processed through a change order;
 - Emergency or urgent work;
 - Greater financial benefit for the work to proceed because costs may increase significantly if the work is delayed or deferred;
 - Decisions made in the field to progress the work without delay; and
 - Waiting for actual time and material costs when change orders are paid on this basis.

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

- 35. 50 (or 65%) of the 77 change orders tested were approved before the payment was issued by the City. 27 (or 35%) of the change orders tested were approved after payments were issued by the City. For the change orders where payments were issued prior to the City's approval, a percentage of the change order value was paid in proportion to the specified work complete at the time. We note, for the 27 change orders not approved before payment, Change Directives were approved prior to payment.
- 36. The City's records reviewed during our testing of the 77 change orders identified 46 (or 60%) change orders with evidence of the Contractor's signature indicating agreement with the terms. For the remaining 31 (or 40%) change orders tested we were unable to locate evidence of the change order signed by the Contractor. The Contract Administration Manual specifies that all parties, including the Contractor, must sign the change order before it is paid.
- 37. Change orders as a percentage of total tender values during the Period of Review for the projects selected for testing ranged from 9% to 15% which is greater than Infrastructure's KPI of 5% to 8% target set out in the 2021 Budget.
- 38. Observations identifying areas for improvement, recommendations and management's response are summarized in Appendix "A". The recommendations relate to the following areas:

Area	# Recommendations
Change Orders	6
Progress Payments	1
Policies and Procedures	3
Total	10

CONTINUOUS AUDITING

Background

- 39. Traditionally, audits look at historical activity and assess compliance, efficiency and effectiveness. Past results are used to make recommendations to improve future operations. Imagine the potential benefits of auditing data in real time, or reducing the delay between present day and the transactions examined, with continuous/never ending audits?
- 40. The Institute of Internal Auditors (IIA) defines continuous auditing as "the combination of technology enabled ongoing risk and control assessments…designed to enable the internal auditor to report on subject matter within a much shorter timeframe than under the traditional retrospective approach."
- 41. Continuous auditing can allow internal audit to move from periodic evaluations of risks and controls based on samples of transactions, to ongoing evaluations using a full population of transactions. Continuous auditing typically utilizes data analytics software to perform specified activities on a continuous basis. Technology is leveraged to analyze data frequently for early detection of outliers or inconsistencies which can help internal audit complete more frequent and broader testing to reduce risks and improve controls in an organization.

Objective

42. To assess options for Internal Audit's continuous/real time automated monitoring of specified financial transactions and activities at the City.



File: F00 Pending #:

Methodology

- 43. The following activities were performed:
 - a) Meetings with Finance staff;
 - b) Meetings with Information Technology staff;
 - c) Review of continuous auditing guidelines issued by the IIA;
 - d) Benchmarking with other municipalities regarding continuous auditing practices;
 - e) Meetings with service providers regarding audit technology offerings; and
 - f) Evaluation of audit technology tools.

Findings

44. Key differences between the City's current audit environment and a continuous audit environment are summarized in the chart below:

Current Audit Environment	Continuous Auditing Environment
 Limitations for Internal Audit's immediate access to data Testing using judgmental sampling Manually intensive – compiling and reviewing data can be time consuming Retroactive audit process examining historical transactions 	 Direct connection to data sources Testing using 100% population of data Continuous auditing of transactions in specified areas Real time audits striving for predictive outcomes

- 45. Potential benefits of continuous auditing can include the following:
 - a) Technology enables Internal Audit to identify trends and outliers in large volumes of data providing greater insight and more timely reporting of findings to management (for example for fraud detection or investigation).
 - b) Increased efficiency as data analytic criteria developed for continuous auditing can be reused for periodic audits and other recurring activities can be automated.
 - c) Reduction of staff audit time, through increased automation using technology, which can be redirected to higher value activities.
 - d) Increase audit effectiveness by testing 100% of transactions rather than a sample of transactions (for example compliance testing of expense reports or purchase cards).
- 46. Potential obstacles to implementing a continuous auditing environment can include:
 - a) Resources from other departments (such as Information Technology and Finance) would be required to assist with the initial configuration of the chosen technology solution and integration of the required data sources.
 - b) Data from internal systems may not be consistent and, in some cases, may be maintained manually in a format not efficiently integrated with a continuous auditing tool.
 - c) Continuous auditing can result in an increased identification of potential anomalies requiring follow up for departments to assess and conclude whether there is a true anomaly or whether the identified transaction has a legitimate business explanation. Management engagement will be essential for the success of a continuous auditing program to ensure data issues identified are addressed in a timely manner.
 - d) Initial financial costs to set up a continuous auditing program, as well as those to maintain it on an annual basis, can be significant while cost savings achieved from the increased audit capabilities may take longer to materialize.



File: F00 Pending #:

Continuous Auditing Tool Options

47. A summary of different tool options considered by Internal Audit in this assessment to support continuous auditing objectives is set out below:

		LOW — Cost & Expertise — HIGH				
			OPTIONS			
		1	1 2 3 4 5			
		Spreadsheet	Spreadsheet Addition	Business Intelligence	Data Analytics	Artificial Intelligence
	Incremental Cost	N/A	Low	N/A	Medium	High
ACTORS	Timeline	Immediate	Immediate	Immediate to Mid-Term	Mid-Long Term	Long Term
KEY FAC	Data Acquisition	Manual	Manual	Integrated with SAP	Import data from sources	Import data from sources
	Expertise Required	Low	Low	Med	Med	Med/High

- 48. From a time and cost perspective, an investment in spreadsheets and business intelligence tools has already been made by the City so there is no incremental cost nor a significant amount of lead time required with these options to pursue continuous auditing objectives. The audit processes using these tools, however, remain substantially manual in nature. The spreadsheet addition has a low cost and improves functionality however also results in audit work which remains manual in nature. Data analytics and artificial intelligence options carry the highest incremental cost but offer the greatest automation of tasks thereby reducing staff time needed to achieve audit objectives for a larger population of data.
- 49. The potential for integration of different sources of data from City systems increases with the complexity of the audit tool considered. Data analytics and artificial intelligence provide the greatest opportunities to extract data and automate audit testing for irregularities or anomalies however external expertise may be required to develop the systems and programs.
- 50. The various options assessed each offer opportunities to conduct meaningful audit testing however as the level of automation increases with a tool, the less manual intervention is required allowing for larger scopes of work to be undertaken. In the evaluation of these options, the acquisition costs are readily quantifiable but the potential costs savings to be achieved cannot be measured with the same certainty.

Conclusion

51. There are benefits and efficiencies that can be achieved with the implementation of continuous auditing at the City. The ability to audit entire data populations rather than samples, to examine transactions immediately rather than retroactively, and the opportunity to better detect potential fraud in the organization would strengthen the City's objectives to address risk and improve value to stakeholders.

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

52. Given the low cost of investment, the spreadsheet addition option has been purchased and is now currently in use by Internal Audit. A business case for data analytics or artificial intelligence will be prepared in the future to specify the required resources and benefits to be gained from Internal Audit's goal of continuous auditing.

PCARD AND EXPENSE REIMBURSEMENT

Background

- 53. The Purchasing Branch of the Finance Department oversees the City of Barrie's ("the City") Purchasing Card (PCard) Program. The City provides PCards to eligible City employees if justified by an approved business case. The City's PCard Procedures describe a PCard as a "credit card" that provides City employees a convenient and efficient method to purchase low value goods and services. The City's PCard Policy and PCard Procedures provide governance and guidance related to the City PCard Program.
- 54. The Payroll Branch of the Human Resources Department ("Payroll") oversees the City's Expenses policy. The Expenses Policy states that "the City reimburses only those Corporate expenses that are both allowable, reasonable and necessary to provide high quality services to residents and taxpayers." Expense reimbursements are approved by the individual's supervisor and processed by Payroll.
- 55. The City Clerk and Treasurer approve Council expenses which are processed by Payroll. The Reimbursement of Council Expenses policy states that "the City of Barrie is committed to the reimbursement of its elected officials for all reasonable costs incurred in the course of fulfilling their duties."
- 56. PCard and expense reviews are conducted by Internal Audit on an annual basis to monitor and measure compliance with City policies and procedures.

Objective

57. To assess compliance with City policies and procedures for PCards and expense reimbursement.

Methodology

- 58. Our scope of review included PCard transactions and expense reimbursements for the 16-month period between January 1, 2020 and April 30, 2021 (the "Period of Review").
- 59. The following activities were performed:
 - a) Meetings with staff in Purchasing;
 - b) Meetings with staff in Payroll;
 - c) Meetings with staff in Finance;
 - d) Discussions with City departments;
 - e) Reviewed applicable City policies and procedures for PCard and expense reimbursement including the PCard Policy, PCard Procedures, Expenses Policy, and Reimbursement of Council Expenses Policy:
 - f) Judgmentally selected 25 PCardholders, based on the dollar value of purchases, and department, for testing of compliance with City policies and procedures;
 - g) Judgmentally selected 10 expense reimbursements to review based on the dollar value of reimbursement and type of reimbursement for testing of compliance with City policies and procedures; and



File: F00 Pending #:

- h) Conducted data analysis of PCard transactions to identify possible transaction splitting or other irregularities.
- 60. Our PCard review included only transactions for City of Barrie cardholders and did not include cardholders in the Barrie Public Library which are administered by the City.

Conclusion

- 61. The City provides effective purchasing methods for staff to facilitate low value procurement needs. Detailed City policies and procedures exist to provide coordinated governance over PCard usage and expense reimbursement.
- 62. Based on the work performed, compliance with policies and procedures for PCard use and expense reimbursement needs to be improved. Implementation of Internal Audit's recommendations will assist with the monitoring of compliance for PCard use and expense reimbursement at the City.

Findings

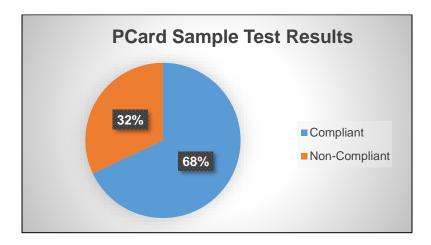
PCards

63. City PCard transactions during the Period of Review are summarized in the table below:

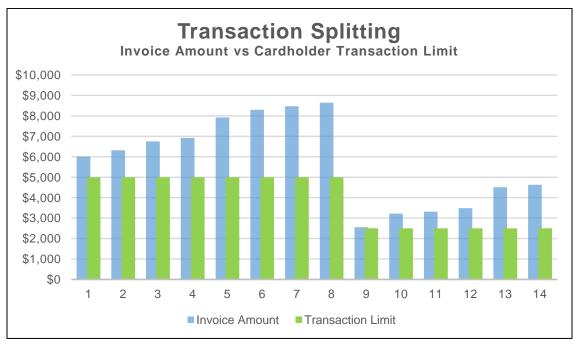
Description	Amount
# active PCards	341
# transactions	9,472
Value of transactions	\$2,661,197

- 64. The City's PCard Program has been established to provide a convenient and efficient means with which to acquire low value goods and services, at the same time, reduce the costs associated with initiating and paying for those types of transactions. Typically PCard transactions are one-off immediate purchases unavailable through current City arrangements, and cost ineffective to process through a traditional purchasing process (for example travel, membership dues, online purchases).
- 65. PCard transaction limits range from \$500 to \$5,000 and monthly credit limits range from \$1,000 to \$10,000 per cardholder. PCards are set up with automatic payments to the credit card provider, so that outstanding balances on all City cards are paid in full by the City each month.
- 66. The City's PCard policy and procedures require all PCardholders to code their PCard transactions each month in the credit card provider's software (Spend Dynamics) to the appropriate financial accounts. In addition, PCardholders are required to submit their PCard statement and supporting transaction receipts to their supervisor for review and approval. Once transactions are coded and approved in Spend Dynamics, and supporting receipts have been reviewed and approved, all supporting records are sent to the Finance department or retained by the cardholder.
- 67. Our PCard sample testing included 25 PCardholders selected across the organization and involved a detailed review of one month's PCard transaction statement within the Period of Review to assess compliance with City PCard policies and procedures. Our testing found 17 out of 25 (or 68%) PCardholders were compliant and 8 (or 32%) out of 25 PCardholders were not compliant.





- 68. Reasons for non-compliance identified included:
 - a) Insufficient purchase documentation to support the transaction (6 PCardholders) for example, a credit card receipt only without detail of the items purchased; and
 - b) Transaction splitting (2 PCardholders) purchases costing more than the PCardholder's transaction limit where the purchase is split into a dollar amount to remain within the authorized limit (i.e. attempting a \$4,500 purchase with a transaction limit of \$3,000 and transacting \$3,000 one day and the remaining \$1,500 in a separate transaction the same or next day).
- 69. In addition to our sample testing of PCardholders, we conducted data analytics across all 341 PCardholders to analyze transactions to identify potential instances of transaction splitting or other irregularities.
- 70. Our data analysis found 14 additional instances where purchases were split into a dollar amount to allow the Cardholder to remain within their authorized transaction limit as set out in the graph below:





File: F00 Pending #:

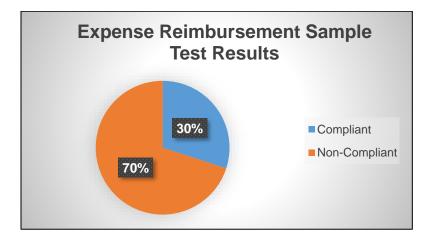
71. The identified split transactions were approved by the appropriate authority however the method of purchasing does not comply with the PCard Policy which does not permit transaction splitting.

Expense Reimbursement

72. Expense reimbursement transactions during the Period of Review are summarized in the table below:

Description	Amount
# individuals receiving reimbursement	440
# transactions	1,728
Value of transactions	\$395,898

73. Our expense reimbursement testing included 10 individuals selected across the organization and involved detailed review of an expense reimbursement period during the Period of Review to assess compliance with City PCard policies and procedures. Our testing found 3 out of 10 (or 30%) of expense reimbursements were compliant and 7 (or 70%) were not compliant.



- 74. Reasons for non-compliance identified included:
 - a) Appropriate approval not obtained (1 employee) for example, the approver was not the City supervisor of the individual claiming the expense reimbursement; and
 - b) Insufficient documentation to support the transaction (6 employees) for example, a credit card receipt only without detail of the items purchased or lack of pre-approval authorization for tuition fees.
- 75. Observations identifying areas for improvement, recommendations and management's response are summarized in Appendix "B". The recommendations relate to the following areas:

Area	# Recommendations
PCards	3
Expense reimbursement	3
Total	6

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

FRAUD PREVENTION MONTH

Background

- 76. The Canadian Fraud Prevention Forum, chaired by the Competition Bureau, designates March as Fraud Prevention Month in an annual campaign to help Canadians recognize, reject and report fraud. Fraud is an evolving business risk and it is important organizations assess their exposure and undertake appropriate mitigation activities.
- 77. To communicate methods of fraud prevention to City staff, with the support of the City's Communications team and participation from the Human Resources and Information Technology departments, Internal Audit launched a campaign during the month of March to raise awareness of fraud and communicate practical methods of addressing fraud risks.

Objective

78. To provide education to City staff about fraud prevention.

Methodology

- 79. The following activities were performed:
 - a) Prepared fraud prevention materials for use during the month of March;
 - b) Communicated fraud facts and prevention tips each week to City staff; and
 - c) Delivered fraud awareness sessions to City departments.

Outcomes

80. Relevant and engaging communication about fraud allows the City to raise awareness of fraud risks and empower staff to become Fraud Fighters. As a result of the fraud awareness sessions delivered, new fraud risks were identified and incorporated into the City's fraud risk assessment. Fraud is a risk continuously monitored by businesses across the City and is incorporated into planning for each of Internal Audit's projects.

ENVIRONMENTAL MATTERS

81. There are no environmental matters related to this Staff Report.

ALTERNATIVES

82. As this Staff Report is being presented for information purposes only, no alternatives are presented.

FINANCIAL

83. There are no immediate financial implications for the Corporation related to this Staff Report.

LINKAGE TO 2018-2022 STRATEGIC PLAN

84. The information included in this Staff Report supports the following goal identified in the 2018-2022 Strategic Plan:



File: F00 Pending #:

Offering innovative and citizen driven services

85. Implementation of the recommendations identified in the Internal Audit projects will achieve enhanced processes and controls to protect the City's assets as well as increase efficiency in the delivery of services to make tax dollars go further.



File: F00 Pending #:

Appendix "A" - Capital Project Payments Observations, Recommendations and Management Response

Observation	Recommendation	Management Response
Change Orders 1. Approval of Change Orders As set out in the Contract Administration Manual, Change Orders should be approved by an appropriate authority prior to the payment of the Change Order. Our testing identified 19 change orders which were not approved by an appropriate signing authority. Our testing also identified 27 change orders which were paid before they were approved. We note that Change Directives, for these 27 Change Orders, were approved prior to payment. Payment of change orders prior to obtaining the appropriate approval increases the risk of unjustified costs and inappropriate payments to Contractors.	Existing Infrastructure procedures must be followed consistently to obtain change order approvals from the appropriate authority prior to payment for the associated work.	The three audited projects started construction in 2018 and 2019. The audit period of review was from January 2019 to December 2020. The management team continue to implement control processes and procedures to ensure timely and appropriate change management including the implementation of the Change Control Board in 2020. In 2021, the management team has strictly enforced the procedures in relation to the Change Control board (CCB) and Change orders or directives. Changes above the relevant thresholds must receive CCB approval and change order/directive documentation must be completed in a timely manner. The purpose of the CCB is to review and analyze proposed changes as well as emphasize the importance of prior approval. The audit revealed instances where documentation was not being completed on time. Historically, some of the changes relied on verbal concurrence or authorizations to move forward with the changes to keep construction moving forward. Starting in 2021, strict timelines are being enforced to complete the documentation related to change orders/directives and contract communications. In rare cases, where time is of the essence for the work to proceed, any agreement between the City and the Contractor must be documented in clear contract communications. The management team continues to stress adherence to the change management procedures with internal and external contract administration teams. It is noted that there are few instances where the project teams exercise resistance in recognizing a change as Contractors are frequently



Observation	Recommendation	Management Response
		raising in-scope items or work as changes to the contract. Where there is some uncertainty in relation to a change, a change may be formally recognized after the work is complete and in negotiations with the Contractor. Processes and procedures are being further refined to address this.



Observation	Recommendation	Management Response
2. Timing of Work As specified in the City's Design and Construction Standard Operating procedures and the Contract Administration Manual, construction work should be performed by the Contractor only after appropriate approval has been provided by the City through either a Change Directive or a Change Order. Our testing identified 70 instances where work was commenced by the Contractor between 2 weeks and in one case up to 2 years before approval from City management was obtained in a Change Order. 17 of the 70 Change Orders did, however, have a Change Directive issued by the City prior to the work commencing.	Existing Infrastructure policies requiring Change Orders to be approved by the City and the Contractor prior to work commencing should be followed.	In addition to the response in (1): Use of change directives and change orders on a time and materials basis means that the final change orders are finalized well after the work is completed. However, in these instances the management team will continue to enforce the requirement to have documentation in place for the change directive or documentation in place to confirm the acceptance by the contractor to proceed on a time and materials basis. Work may be initiated prior to the issuance of a formal change order/directive, in special cases, if the change has been agreed with the Contractor through written communications such as Emails or Meeting minutes and risk is mitigated where the basis of payment is agreed upon or already exists within the Contract.
In 31 Change Orders, we did not find evidence that the Contractor's signature was obtained as evidence of their acceptance of the Change Order terms. The risk of overall construction costs exceeding justified or reasonable amounts increases if the Contractor performs work before it has been appropriately approved by the City.		With respect to the Contractor's signature on the Change Order, there are some instances where the Contractor refuses to accept all terms of the change order and thereby refuses to sign the documentation. This challenge is being addressed through improvements to contract administration processes. Contractor performance evaluations have also been implemented and these evaluations will include the Contractors' willingness to adhere to contract requirements. Contractor poor performance in extreme cases could result in bidding prohibitions.

REPORT TO FINANCE AND CORPORATE SERVICES COMMITTEE

File: F00 Pending #:

3. Change Control Board
The CCB Guidelines state all
Change Directives or Change
Orders greater than \$10,000
must be submitted in a
Change Request form for CCB
approval.

Of the 33 change orders in our testing which met the requirements to obtain CCB approval, we found 7 did not have a Change Request Form submitted to the CCB.

- We were advised 2 change orders identified in our testing were planned quantity adjustments which are not required to obtain CCB approval because there is already an approved unit price, but we do not see this exclusion specified in the current CCB Guidelines.
- We were advised that
 1 change order
 identified in our testing
 was to be paid by
 another party and did
 not required CCB
 approvals because it
 would be fully
 recovered from
 another party but we
 do not see this
 exclusion specified in
 the current CCB
 Guidelines.
- In 4 change requests, agreement regarding project changes was captured either in emails between the City and the Contractor or in meetings but these discussions are not consistently

Existing CCB Guidelines must be followed consistently to ensure appropriate approval and valuation of work for capital projects.

Approvals must be obtained from the CCB prior to the associated work commencing unless the reason for the change is specifically excluded in the CCB Guidelines.

If situations do not require CCB approval, they should be specified in the CCB Guidelines for clarity and consistency of use by the Infrastructure department.

The Change Control Board is new to the Infrastructure Department. It was first introduced in 2019 and formalized with procedures in June 2020. Given its recent introduction, it has been a period of transition for the project managers to become familiar with the procedures and process changes. This has been the case with a small number of changes in the past and the management team is committed to rooting out some of these past problems. Additionally, it is noted that there are instances where the validity or the value of a change is in dispute, and in some of these instances the City's project management team may retroactively recognize the validity of a change. Where the value of a change order cannot be agreed with the Contractor, the Contractor is often directed to proceed with the work on a "time and expenses" basis.

The CCB guidelines will also be reviewed for their application to claims from contractors. Claims are dealt with differently, however, once a claim is settled, it is often paid as a change order for the purpose of inclusion of the claim amounts within payments. The CCB procedures will be strengthened to address this ambiguity.

Change orders that were approved by the CCB well after the work was undertaken relate to items that were in dispute with the Contractor and the disputes were resolved through negotiations with the Contractor. The department is focused on eliminating these occurrences through continued improvements to the contract documents and contract administration practices. In this regard, the CCB Guidelines and the CA Manual will be reviewed for consistency and realistic practices.



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Observation	Recommendation	Management Response
documented or formalized to amend contracts. Our testing also identified 18 Change Requests approved by the CCB between 2 weeks and 16 months after the associated work had commenced or been completed. Without CCB approval of project changes prior to the work commencing by the Contractor, the City risks assuming a cost that may already potentially be included in the project tender value or which may not be valued appropriately since it is not subject to open competition with other vendors.		
4. Root Causes Prior to the creation of the Change Request form used for CCB approval, the reasons for construction changes in capital projects were not consistently identified. The root causes for change orders are not always documented in Change Request forms submitted to the Change Control Board as we noted in 2 out of 26 Request forms in our testing. We also noted changes requested which resulted from internal requests for modifications to scope after the tender was awarded. Infrastructure does not have a formal documented process to understand the factors resulting in additional costs to the project.	Strict monitoring of the reasons for changes in capital projects should be performed to help identify potential areas for improvement in bid preparation and contract management processes. At the conclusion of capital projects, root causes of change orders should be reviewed and documented to address practices or procedures for the future.	At the end of contracts, "lessons learned" are captured for posterity and for improving contract documents and designs on future projects. While the Managers within the branch implement changes based on "lessons learned" on an Ad Hoc basis, this process will be strengthened as recommended by the audit team to include a formal tracking system of the root causes of change orders by the Change Control Board and shared with the Infrastructure team. The team has been continually improving the template contract documents to address extras or claims encountered on previous projects to eliminate recurrence of known causes for extras and claims.



Observation	Recommendation	Management Response
Without an understanding of drivers for change orders across the department, the City may miss opportunities for accountability and process improvements.		
Infrastructure's KPI for Change Orders as a % of total tender value is 5-8% as set out in the 2021 Budget but we found that change orders as a % of total tender value during the Period of Review for the projects selected in our testing was 9-15%. The higher the percentage of change orders to total tender value, the greater the resulting total project costs and risk that that the costs may not be valid and reasonable.	Performance measures to monitor change order rates should be implemented and maintained for capital projects and compared against target rates on a periodic basis to ensure change order costs are reasonable. Analyzing change order costs may assist with trend analysis by project, contract, or Contractor. The frequency and value of change orders associated with certain Contractors may also help identify high-risk areas.	The rate of change orders as a percentage (%) is one of three KPI's for the project delivery team. This will be reported to the senior management team on a quarterly basis. This KPI is critical to ensuring the financial sustainability of the City, the Infrastructure Department and the Capital Delivery Program. The management team is committed to good performance in relation to this KPI. For construction contracts, the following scale is used to measure performance with respect to change orders: Good Performance – less than 5% Fair Performance – greater than 10% The three audited projects are noted to be complex and had extensive challenges and risks related to existing utilities, third party infrastructure, design changes and scheduling challenges and difficulties during construction.



Observation	Recommendation	Management Response
Pricing Schedules Pricing schedules do not consistently contain specifications for work included in the tender. When the pricing schedule does not specifically identify work, the Contractor and City may disagree on what is included in the tender price vs what requires a change order to address. In our sample testing, we noted an instance where a change order for use of a shuttle buggy was approved. Although the requirement had been specified in the tender document, it was not listed as separate item in the associated pricing schedule. Lack of clarity or insufficient detail about project scope in the tender documentation may result in cost overages in City capital projects where costs are paid through change orders instead of the contract tender value.	Specific requirements identified in tender contracts should also be detailed in the accompanying pricing schedule to reduce potential inconsistencies or change order requests during the project. Cross referencing specific requirements to the pricing schedule should be incorporated into verification procedures when finalizing bid documents to ensure completeness of the scope and pricing for the capital project.	This occurs in very few instances and does not result in significant cost escalation. Regardless, the management team has continued to work towards eliminating this cause for extras through more diligent review of contract documents prior to tender with a focus on accurate quantities, elimination of poorly defined item quantities and missing items that could be exploited by the Contractor for gain.
Progress Payments 7. Progress Payments Complex Microsoft Excel worksheets are used to support monthly progress payments to Contractors for capital projects.	Investigate available options to automate invoice preparation for capital project progress payments to eliminate or reduce manual intervention which will improve accuracy and reduce staff time required to assemble the payments.	The management team is reviewing various software available in the market to improve the payment management process. This will take time and additional resources and funds to implement. The management team will make this a priority for the department.
Our testing identified 3 manual errors in the compilation of progress payments in the Excel template which resulted in overpayments to the Contractor. The preparation of progress payments is a manual and time consuming task for City staff. These errors were identified and corrected by staff prior to our testing but	Implement standardized progress payment templates for consistency and to facilitate review for approvers. For example, ensure both monthly and cumulative payment details are included in supporting documentation.	



Observation	Recommendation	Management Response
demonstrate the complexity and risk associated with the manual progress payment preparation process. Verification of progress payment detail for approval is also manual in nature, is challenging to review, and may result in the approval process being susceptible to potential abuse or errors.		
Policies and Procedures 8. Inspection Reports Inspection reports are not consistently available in a manner that allows for audit/reconciliation back to tender pricing schedules. Inspection reports are also not standardized between inspectors (City and external) and not fully utilized as designed (for example, sections in the inspection template with references to work item or change order numbers are not consistently included). Inconsistent preparation of inspection reports results in challenges for the validation of project details such as the timing of specific work	City templates for capital project inspection reports should be used for projects with both internal and external contract administrators and internal and external inspectors to ensure consistency with City documentation and records. Inspection reports should consistently reference pricing schedules and/or tender sections for the work performed to allow efficient reconciliation to approved scopes of work.	Project teams are required to complete and store Inspection Reports. The storage of inspection reports are to be transferred to a Central Drive once the project is completed. During construction these reports are stored on the project manager's or field staff's computer drives. The department is continuing to improve record management processes during and after completion of a project to address the challenges associated with delivering construction project with internal and external (consultant) resources.



Observation	Recommendation	Management Response
9. Procedures Existing documentation of procedures for capital project payments are not approved or current. The Standard Operating Procedure for Construction Progress Payments is dated January 2014 and does not reflect all current controls and approvals followed by the Infrastructure teams nor the current organizational structure (for example referencing requirement for the Manager of Design & Construction approval but this position no longer exists in the department). The Contract Administration manual is dated 2019, is in draft form, and does not reflect the current controls and approvals of the Infrastructure department.	The Infrastructure policies and procedures relevant to capital project payments should be reviewed, updated, approved and communicated to staff and other external parties involved in the administration of construction projects. Formal documentation of protocols will contribute to consistency and clarification of requirements for staff regarding controls for capital project payments.	The Infrastructure Department initiated the continuous process improvement initiative in 2020 to improve existing procedures and guidelines. This initiative has resulted in various improvement to improve cost certainty and schedule certainty. Dedication of adequate resources is a constraint to the rapid implementation of the initiative. There has been considerable change in this business area in recent years and staff are working on updating their procedures to reflect organizational changes and ensure consistency going forward.
10. Record keeping Electronic records supporting capital projects are stored in multiple locations. We also noted duplicate records residing in different project folders. Supporting documentation for construction changes is not consistently retained (i.e. minutes of meetings or email communication). In projects with external project managers, project documentation was not always readily accessible to City staff. In our sample testing, we required access to 2 different network drive locations, 6 subfolders, and additionally made requests for documents	Formalize record keeping protocols for both electronic and hard copy records across the Infrastructure department. Consistent record keeping protocols across Infrastructure will allow more efficient access to information and facilitate monitoring and auditing of project costs.	The Department has been working on a formal record keeping process for both electronic and hard copy records. The Department recently implemented a standardize filing system for Design & Construction. Improvements to document management during the course of construction projects are also underway. It is noted that the audits were completed on three projects during construction and prior to completion.



Observation	Recommendation	Management Response
stored on personal drives of project team members for selected projects. The storage of records was not consistent which increased the time required to complete our testing.		
Inconsistencies in record keeping practices can limit the City's ability to access necessary records in a timely manner and independently verify supporting documentation for capital project payments.		



File: F00 Pending #:

Appendix "B" – PCard and Expense Reimbursement Observations, Recommendations and Management Response

Observation	Recommendation	Management Response
PCARDS 1. Supporting Documentation The PCard policy states the "cardholder is responsible for obtaining and retaining all transactional supporting documentation." The PCard procedure further states that "original purchase documentation should at a minimum indicate the transaction date, description, vendor, payment method, individual item amounts, taxes and totals. Including only a credit card transaction confirmation receipt is insufficient, detailed receipts are required. A description of the nature of the transaction must be included." 12 instances of insufficient supporting documentation involving 6 staff were identified in our testing. Insufficient purchase documentation increases the risk that PCard purchases are not valid City expenses.	PCard approvers must ensure cardholders provide sufficient supporting documentation for each PCard transaction. Supplementary training needs to be delivered to PCardholders clarifying the necessary documentation required to support PCard transactions.	Finance Prior to receiving a card or being assigned as an approver, employees must take the online training, and submit a copy of the confirmation of completion. The training is also available anytime a staff person wishes to review it. Without additional resource support, providing ongoing supplementary training will be a challenge as the Finance department has limited resources available. However, Finance will look to partner with Internal Audit to help with any additional training.



2. Transaction Splitting The PCard Policy states "Transaction splitting is not permitted and is defined as purchases costing more than the PCard transaction limit where the purchase is split into a dollar amount to allow a cardholder to remain within their authorized transaction limit." In total, 16 instances of transaction splitting involving 16 staff were identified in our sample testing and data analytics. In one instance, a transaction was split between 3 different staff PCards to accumulate the necessary transaction authority for the purchase value. Transaction splitting results in staff exceeding their approved spending authority and potentially increasing the risk of inappropriate and unauthorized purchases. 3. Cardholder approval The PCard Policy states that Cardholders may not be their own approver and cannot be a subordinate with a reporting line to the Cardholder being approved. 3. Cardholder approval The PCard Policy states that Cardholders may not be their own approver and cannot be a subordinate with a reporting line to the Cardholder being approved. 3. Cardholder approval The PCard Policy states that Cardholders were identified to have approved their own transactions. We understand approving a cardholder's own transactions is possible if authority is specifically	
The PCard Policy states "Transaction splitting is not permitted and is defined as purchases costing more than the PCard transaction limit where the purchase is split into a dollar amount to allow a cardholder to remain within their authorized transaction limit." In total, 16 instances of transaction splitting involving 16 staff were identified in our sample testing and data analytics. In one instance, a transaction was split between 3 different staff PCards to accumulate the necessary transaction authority for the purchase value. Transaction splitting results in staff exceeding their approved spending authority and potentially increasing the risk of inappropriate and unauthorized purchases. 3. Cardholder approval The PCard Policy states that Cardholders may not be their own approver and cannot be a subordinate with a reporting line to the Cardholder being approved. In our data analytic testing, 7 cardholders were identified to have approved their own transactions. We understand approving a cardholder's own transactions is possible if	Management Response
The PCard Policy states that Cardholders may not be their own approver and cannot be a subordinate with a reporting line to the Cardholder being approved. In our data analytic testing, 7 cardholders were identified to have approved their own transactions. We understand approving a cardholder's own transactions is possible if to turn off the delegation of functionality to PCardholder their own transactions, invested whether Spend Dynamics he exception reporting available which can be created by the card company or the City, to any instances where PCardholder heir own publications. Department management is review exception reporting or functionality to PCardholder their own transactions, investing their own transactions, investing their own transactions, investing their own transactions whether Spend Dynamics he exception reporting available which can be created by the card company or the City, to any instances where PCardholder have approved their own transactions.	Prior to receiving a card or being assigned as an approver, employees must take the online training, and submit a copy of the confirmation of completion. The training is also available anytime a staff person wishes to review it. Purchasing has recently completed a PCard Cardholder/Approver Review whereby Department Heads are provided a listing of cardholders and their approvers for their department. 20+ changes were made (approvers, limits, etc.). We are still working on one division as they had a related project.
delegated to the employee in Spend Dynamics. We understand from the Purchasing team that the segregation of authority has achieved in all PCard transaction approvals.	authority rs for stigate as stigate as se, or e credit or identify lholders archases. Consider that an email indicating their approval should be uploaded to system for those transactions. Consider the defendance of the consideration of authority should only be used in exceptional circumstances, and, if used in cases where PCardholders are approving their own purchases, that an email indicating their approval should be uploaded to system for those transactions. Considerate mail will be sent to approvers to remind them that the use of delegation of authority should in exceptional circumstances, and, if used in cases where PCardholders are approving their own purchases, that an email indicating their approval should be uploaded to system for those transactions. Considerate to remind them that the use of delegation of authority should only be used in exceptional circumstances, and, if used in cases where PCardholders are approving their own purchases, that an email indicating their approval should be uploaded to system for those transactions. Considerate the use of delegation of authority should only be used in exceptional circumstances, and, if used in cases where PCardholders are approving their own purchases, that an email indicating their approval should be uploaded to system for those transactions.



Observation	Recommendation	Management Response
in Spend Dynamics cannot be turned off. Without segregation between the purchaser and approver there is a risk purchases are not appropriate or legitimate.		any instances are found, an email will be sent to the approver and Department Head to advise them to avoid this in the future and/or to upload an email that provides approval from the approver. If instances continue, matters will be escalated as per PCard Policy.
EXPENSE REIMBURSEMENT 4. Supporting Documentation Appropriate, detailed supporting documentation is required to clearly describe the items for which reimbursement is requested and to confirm the purpose of the good or service complies with City policies and procedures. 6 of the 10 expense reimbursements tested lacked sufficient supporting documentation to comply with City policies and procedures. Insufficient purchase documentation increases the risk that expense reimbursements are not valid City expenses and do not comply with Canada Revenue Agency requirements.	Expense reimbursement approvers must ensure sufficient supporting documentation is provided for each expense claimed. Supplementary training would be beneficial to clarify the necessary documentation required to support expense reimbursement claims.	Payroll Expense Procedures are currently in the process of being updated and then approved for posting. We anticipate this will be complete before the end of this year. As part of that process, communication/training will be provided to people leaders to ensure they are aware and reminded of the requirements related to expense reimbursements as per the procedure.
5. Approvals As set out in the City's Expenses Policy, approvers of expense reimbursements must ensure expenses are both allowable, reasonable and reflect only those expenditures that are necessary. 1 of the 10 expense reimbursements tested lacked appropriate approval authority for the reimbursement. While an approval was obtained, it was not from the appropriate	Expense reimbursement approvers must ensure the claim complies with City policies and that they are entitled to approve the transactions in the claim. Supplementary training would be beneficial to clarify, both to those seeking reimbursement as well as those approving reimbursement, the approval level required. Assess the feasibility of capturing expense report approvals in SAP to provide improved visibility and	Payroll Please see the response for 4 above. People leaders will be reminded of the approval requirements as part of the communication/training. HR will further discuss with Finance reviewing the feasibility of moving expense reimbursement to become a part of SAP or a 3 rd party software add-on that will capture expenses and approvals digitally, thus improving visibility and reporting.



Observation	Recommendation	Management Response
authority. Without sufficient approval authority, the risk of inappropriate expense reimbursement increases.	reporting of the costs in management reporting.	
6. Policies and Procedures There are multiple reimbursement forms required for staff to complete depending on the specific nature of the claim. For example: Employee Membership Support Request Form, Expense Reimbursement Form, and Tuition Reimbursement Forms each contain unique requirements for compliance. If an employee chooses the incorrect form, and it is approved, then not all Canada Revenue Agency and City requirements may be achieved.	Consider whether the existing types of reimbursement forms can be consolidated into one form, which accommodates each type of expense, to simplify form selection for employees and improve compliance with necessary requirements.	Payroll HR will review the current forms to determine if it is feasible to amalgamate multiple forms into one in order to eliminate the risk of staff claiming an expense using the incorrect form.
For example, we noted in our testing an instance where tuition reimbursement was claimed on an expense reimbursement form. In this case, the requirement for proof of successful completion of the course/exam was not specified on the expense reimbursement form and was not provided by the staff member with their claim.		