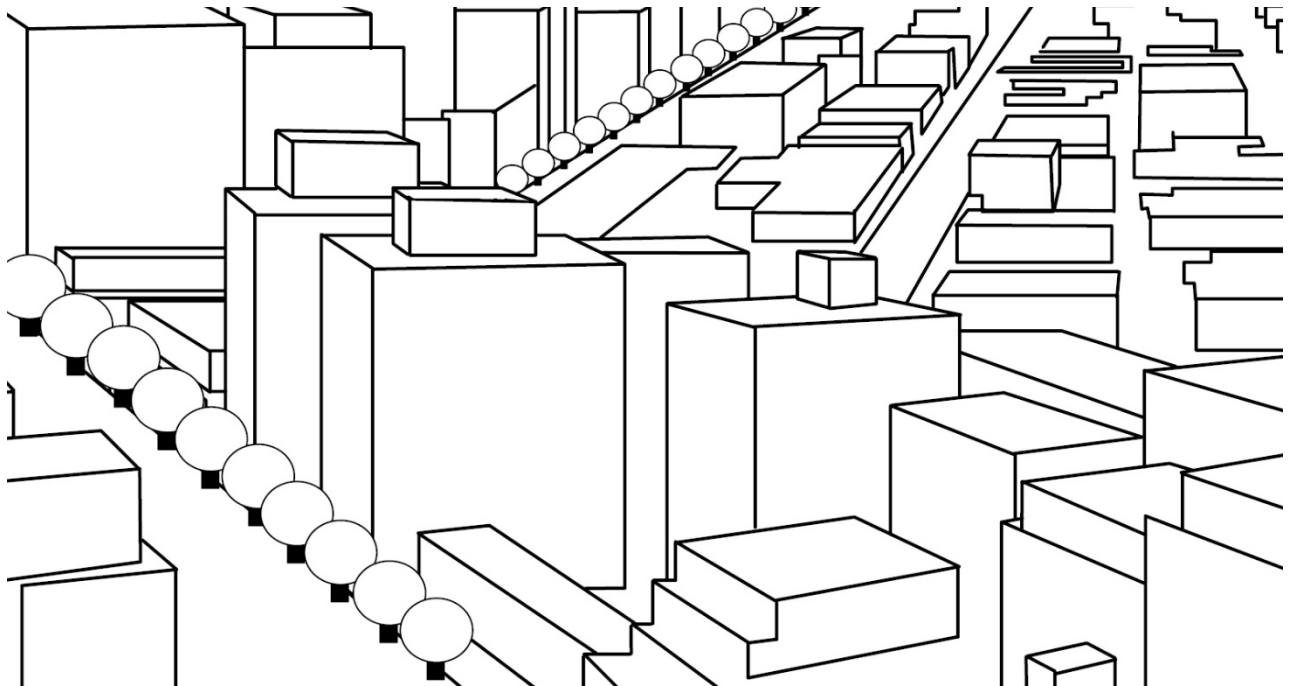


**Audit of**

# **Building Permit Fees**



An independent auditor's report prepared in accordance with the Canadian Standard on Assurance Engagements 3001 published by the Chartered Professional Accountants of Canada

January 2023

## Performance Audits

---

A performance audit is an independent, objective and systematic assessment of how well government is managing its activities, responsibilities and resources. We select audit topics on the basis of their significance. While the OAG may comment on policy implementation in a performance audit, we do not comment on the merits of a policy.

Performance audits are planned, performed, and reported in accordance with professional auditing standards and the OAG's policies. They are conducted by qualified auditors who:

- Establish audit objectives and criteria for the assessment of performance;
- Gather the evidence necessary to assess performance against the criteria;
- Report both positive and negative findings;
- Conclude against the established audit objectives; and,
- Make recommendations for improvement when there are significant differences between criteria and assessed performance.

Performance audits contribute to a public service that is ethical and effective and a civic administration that is accountable to taxpayers and its elected officials.

## Message from the Auditor General

---

To the Mayor and Council of the City of Vancouver,

I am pleased to present this report on my office's performance audit of the City's administration of Building Permit Fees.

As the first audit report issued by the Office of the Auditor General for the City of Vancouver, this report represents an important milestone in the City's ongoing efforts to enhance its performance and accountability. On behalf of my team, I thank the current Mayor and Council, as well as the previous Mayor and Council, for the opportunity to conduct this work and contribute to improving the economy, efficiency and effectiveness of the City's operations.

Local governments regulate the construction and renovation of structures to ensure the safety of occupants and achieve policy objectives. The issuance of building permits is an important early step in this regulatory process. Intended to be a fully cost recovered service, building permit applicants are required to pay fees in accordance with a fee schedule. The City's effectiveness in achieving its cost recovery objective is the subject of a separate audit to be released later this year.

Our findings, whether positive or negative in nature or somewhere in between, are explained in detail in the main body of this report. We found that the Development, Buildings and Licensing department (DBL) met the audit criteria in a number of areas. However, we also found opportunities for improvement and, as a result, have made five recommendations to improve the administration of building permit fees. I thank DBL for its positive response to our recommendations, which is provided in Appendix A.

I would like to express my appreciation to the DBL team for their assistance and full cooperation during the audit. In particular, I thank the General Manager and City's Chief Building Official for their leadership in volunteering for our first audit, and thank them for their support as we built our new team and worked through our processes for the first time.



Mike Macdonell, FCPA, FCA  
Auditor General  
Vancouver, B.C.  
25 January 2023

# Report Contents

---

|   |    |
|---|----|
| Performance Audits .....  | 1  |
| Message from the Auditor General.....   | 2  |
| Executive Summary .....   | 4  |
| Main Report .....   | 8  |
| 1. Introduction .....   | 8  |
| 1.1 Background & Context .....  | 8  |
| 1.2 About the Audit.....  | 10 |
| 2. Findings, Conclusions and Recommendations.....                                   | 12 |
| Summary.....  | 12 |
| 2.1 Administration of Building Permit Fees .....                                    | 13 |
| 2.2 Accuracy of Building Permit Fees.....   | 24 |
| Appendix A: Response from the Development, Buildings and Licensing Department ..... | 28 |
| Appendix B: About the Audit .....   | 32 |

# Executive Summary

---

## Summary

1. Our audit objective was to determine whether the City of Vancouver's (the City) Development, Buildings and Licensing department (DBL) implemented processes to accurately and consistently assess building permit fees in compliance with the *Vancouver Building By-law No 12511 (Building By-law)*.
2. DBL implemented processes to consistently and accurately assess building permit fees, in substantial compliance with most of the relevant requirements of the *Building By-law*. However, we found some significant exceptions related to processes administered by the Housing Review Branch (HRB) and identified areas for improvement in both HRB and the Building Review Branch (BRB). We believe that implementation of the five recommendations contained in this report will enhance the City's building permit process to the benefit of applicants, taxpayers and the City.

## Background

3. The central purpose of a building permit is to ensure projects comply with the *Building By-law* to meet life safety, livability, accessibility and sustainability requirements. Issuance of a building permit is required for new construction, alterations and changes made to land use or occupancy on private property.
4. In 2021, the City of Vancouver reviewed and issued 969 permits for new buildings and collected approximately \$12.4 million in building permit fees from applicants. The vast majority of these were issued by two branches within DBL: HRB and BRB.

## What We Examined

5. The audit covered the period of January 2021 to June 2022. This audit examined the accuracy of building permit fees and associated administrative processes and practices. We examined the way in which the building permit fee process was administered by both HRB and BRB. We examined the branches' processes to determine whether they were designed to comply with relevant sections of the *Building By-law*.
6. We also looked at whether administrative processes were clearly defined, well understood and appropriately resourced to support staff in consistently processing building permit fees.

## What We Found

7. Overall, we found that DBL had developed and implemented processes to support the distribution of building permit fees for building permit applicants in a manner that was straightforward for staff to understand and administer. DBL charged fees accurately, based on the City's Schedule of Fees, once proposed project values were determined.
8. However, the method HRB used to determine construction estimates to which the Schedule of Fees was applied was not authorized by the *Building By-law*. Additionally, we identified inconsistencies in HRB's administration of its processes, which resulted in discrepancies in the calculations of the underlying value on which the fees were based.

## Administration of Building Permit Fees

9. We found:
  - Although HRB had designed a simplified process to consistently assess the estimated value of the proposed work, the *Building By-law* did not provide authority for its approach;
  - Inconsistencies in how the City applied its multiplier to calculate fees;
  - The administrative processes used by BRB complied with the *Building By-law*;
  - BRB did not often request detailed cost information to support the value of the proposed work submitted by applicants;
  - Neither branch had written procedures or guidance for the building permit fee assessment process;
  - DBL did not use the Marshall & Swift valuation method to validate cost estimates provided by applicants, although it was the method specified in the *Building By-law*; and,
  - DBL did not provide detailed guidance to applicants to ensure that project cost estimates submitted in building permit applications were complete, reasonable and supportable.

## Accuracy of Building Permit Fees

10. We found:
  - Building permit fees were accurately calculated using the values prescribed in the City's Schedule of Fees;
  - DBL did not consistently collect or review information, reports, or measures to determine or monitor (at an aggregate level) whether building permit fees were correctly assessed; and,

- For projects we reviewed, the value of the proposed work was within a reasonable range of values calculated using Marshall & Swift.

## Recommendations

11. We designed the recommendations identified in Exhibit 1 to be relevant to specific areas of the building permit fee administration process and to make positive contributions to the City’s overall permitting program. The City has developed an action plan (See Appendix A: Response from the Development, Buildings and Licensing Department) in response to these recommendations.

Exhibit 1: Summary of Recommendations

| Themes  | Recommendations  |
|---|--|
| <b>Administration of Building Permit Fees</b> | <p>1. The Development, Buildings and Licensing department should address discrepancies between the <i>Building By-law</i> and the administrative design of the City of Vancouver’s building permit fee assessment process by either:</p> <ul style="list-style-type: none"> <li>• Redesigning processes to more explicitly comply with the <i>Building By-law</i> and address risks of under-charging or over-charging fees; or,</li> <li>• Researching and recommending to Council amendments to the <i>Building By-law</i> to include a different method for charging building permit fees that is consistent, reliable, equitable and more efficient than using the value of the proposed work submitted by applicants as a basis for charging fees, taking the following into consideration:               <ul style="list-style-type: none"> <li>○ The alignment of the selected method with the purpose of charging fees in order to recover the full cost of providing the service of issuing permits; and,</li> <li>○ Developing a transparent method for calculating fees that can be consistently and accurately applied, with administrative efficiency (which may be unique to different types of buildings).</li> </ul> </li> </ul> |
|   | <p>2. The Development, Buildings and Licensing department should develop written guidelines or standard operating procedures for staff to follow when administering processes to determine building permit fees and provide training to staff on the processes.</p>  |
|   | <p>3. The Development, Buildings and Licensing department should enhance the guidance provided to building permit applicants in order to support applicants’ inclusion of complete and accurate information in their application forms.</p>  |

|  |   |
|--|---|
| <p><b>Accuracy of Building Permit Fees</b></p> | <p>4. The Development, Buildings and Licensing department should develop a process, utilizing information available in POSSE, to monitor for administrative consistency of the building permit fee process to ensure that fees are being assessed correctly.</p>  |
|  | <p>5. The Building Review Branch should review the value of the proposed work submitted for projects that have provided estimates during rezoning applications (for Community Amenity Contribution requirements) to determine if they would assist in assessing the reasonability of the values provided in building permit applications.</p> |



# Main Report

## 1. Introduction

### 1.1 Background & Context

12. The central purpose of a building permit is to ensure projects meet the life safety, livability, accessibility and sustainability requirements of the *Vancouver Building By-law No 12511 (Building By-law)*. Issuance of a building permit is required for new construction, alterations and changes made to land use or occupancy on private property. In 2021, the City of Vancouver reviewed and issued 969 permits for new buildings and collected approximately \$12.4 million in building permit fees from applicants.

**Exhibit 2: Annual Fees Collected for Building Permits, City of Vancouver, 2018-2022**

| Year                                   | 2018         | 2019         | 2020         | 2021         | 2022***      |
|--|--------------|--------------|--------------|--------------|--------------|
| Number of New Building Permits Issued* | 1,674        | 1,192        | 1,037        | 969          | 1,457        |
| Building Permit Fees Collected **      | \$12,161,768 | \$15,599,607 | \$13,755,454 | \$12,370,453 | \$29,258,384 |

\* Permits issued for the year include permits applied for in prior years.

\*\* As the City uses cash-basis accounting to record building permit fees collected, the values presented here are different from those presented in the City's financial reports. The values presented here reflect the total fees collected from the building permits issued by year.

\*\*\* Note: 2022 values are current to January 3<sup>rd</sup>, 2023.

13. The *Building By-law* requires building permit applicants to pay fees calculated in accordance with the by-law's Permit Fee Schedule and requires that fees be calculated based on the estimated value of the proposed work (construction value) stated in the application. Under

the *Building By-law*, the value of the proposed work must reflect the market value of all labour, fees and materials related to the project.

14. The *Building By-law* allows the City’s Chief Building Official (CBO) to review the value of the proposed work using the Marshall Valuation Method (now known as ‘Marshall & Swift’) – a nationally-recognized cost-estimation program used to determine the market value of a building – and to substitute a different value for the proposed work in place of the value stated by the applicant.
15. Like other aspects of the City’s permitting program, the City intends for its building permitting program to be funded through user fees. Accordingly, it sets applicant fees collected through the permitting program to recover expenses (both direct and indirect) incurred in processing permit applications.
16. To keep pace with changing administration costs and to add fees for new services, the City’s Finance, Risk, and Supply Chain Management department (FRS), with support from the Development, Buildings and Licensing department (DBL), reviews and updates the

**Legislative Authority on Building Permits & Associated Fees**

***Vancouver Building By-law 12511 (2019)*** regulates the design and construction of new buildings, alterations, changes of use and demolition of existing buildings as well as the administration of permitting (including fees), inspections and the enforcement of those requirements. The by-law shares key objectives with provincial regulations.

***Vancouver Charter*** establishes the City’s authority to adopt by-laws to regulate the design and construction of buildings, issue permits and fix a fee for permits (Part III, s. 161A and Part IX, s. 306(1)(f)).

***BC Building Code*** is the provincial regulation that governs the completion of new construction, building alterations, repairs and demolitions; it is based on the model National Building Code of Canada.

***National Building Code of Canada*** is an objective-based, non-legally binding, ‘model’ code that promotes consistency among provinces and territories.

**What are Cost-Based Regulatory Fees?**

Cost-based regulatory fees are fees directly connected to a regulatory scheme, such as the Building Permit By-law, and set at a level that recovers all or part of the full cost (direct and indirect costs) of providing the service that benefits applicants.

Municipalities are not generally permitted to set fees on a basis other than cost recovery.

schedule annually, subject to Council approval. This review includes an analysis of forecasted permitting volumes and anticipated internal cost escalations. Cost escalation factors include resource additions, collective agreement salary increases, permitting program improvement costs and introduction of new regulations that add to permit processing requirements.

## ***Administering Building Permits***

17. Section 1.5 of the *Building By-law* gives the City's CBO, the authority to administer the by-law's requirements. Within DBL, the Permitting Services group administers various by-laws, including the *Building By-law*. Permitting Services processes permits and handles enquiries related to developments and buildings on private property. Permitting Services for new construction includes two work groups that administer building permits based on the type and complexity of construction:
- The Housing Review Branch (HRB) administers permits for construction of new one- and two-family dwellings, laneway houses and secondary suites; and,
  - The Building Review Branch (BRB) processes building permit applications for most complex construction projects and residential projects apart from single family and row houses.

## **1.2 About the Audit**

18. The building permitting program is a key part of ensuring that construction in the City meets life safety, livability, accessibility and sustainability requirements. Given the importance of this topic, we included a performance audit of Building Permit Fees in the OAG's 2022 three-year plan. The overall objective of this audit was to determine whether DBL implemented processes to accurately and consistently assess building permit fees in compliance with the *Building By-law*.

19. This audit examined the accuracy of building permit fees and associated administrative processes and practices.
20. The audit covered the building permits reviewed and issued during the period of January 2021 to June 2022. We conducted our examination work between July and November 2022 and completed the audit on January 18, 2023.

### **Building Permit Fees in the Context of the City's Overall Permitting Program**

The City issues more than 24 types of permits related to development, building, and planning under various by-laws. Examples include building, trades and development permits. Each type of permit has a fee and together, these fees are intended to cover the overall cost of the permitting program.

21. The scope of this audit does not include:
- Building permit fee processes for renovation projects, as these projects are typically low-cost and collectively only make up about eight per cent of fees;
  - Other permits, such as zoning and development permits and their associated fees;
  - The collection of fees and financial processes and controls administered by FRS; or,
  - Building permit issuance timeliness and enforcement.

22. This audit aligns with an examination of the City's permitting program cost recovery model, which is the subject of a separate, concurrent audit. The overall objective of the permitting program cost recovery audit is to determine if the City's permitting program cost recovery model was designed and applied to ensure that the full costs of services were recovered, and projected reserve fund balances were sufficient to stabilize future operations. Fees collected through the building permit process are included within this model.

For more information on this audit, including audit methods, please refer to [Appendix B: About the Audit](#)

## 2. Findings, Conclusions and Recommendations

### Summary

23. We concluded that DBL implemented processes to consistently and accurately assess building permit fees in substantial compliance with most of the relevant requirements of the *Building By-law*. However, we found some significant exceptions related to processes administered by HRB and identified areas for improvement in that branch and BRB.
24. Overall, we found that DBL had developed and implemented assessment processes to support the distribution of building permit fees in a manner that was straightforward for staff to understand and administer. DBL charged fees accurately, based on the City's Schedule of Fees, once the proposed value of the project was determined by staff, which was done differently in the two branches.
25. However, the method HRB used to determine construction estimates to which the Schedule of Fees was applied was not authorized by the *Building By-law*. Additionally, we identified inconsistencies in HRB's administration of its processes, which resulted in discrepancies in the calculations of the underlying value that the fees were based on.
26. The City's *Building By-law* provides the CBO with the authority to use the Marshall & Swift method as an alternative approach to determining cost estimates for projects. We selected eight building permit applications from the audit period and found that the value of the proposed work used by both HRB and BRB was within a reasonable range of estimates we calculated using the Marshall & Swift method.
27. For permits processed by HRB, we determined that fees were based on estimated values that fell within the range we calculated using Marshall & Swift, with no exceptions.
28. For permits processed by BRB, we found that fees were calculated in substantial compliance with the *Building By-law*. However, the City did not ask most applicants to provide a breakdown of the project value to confirm that estimates were based on a complete and reasonable assessment of the project's current monetary worth.
29. The use of cost estimates provided by applicants as the foundation for calculating fees has inherent limitations. Estimates can vary widely depending on the estimation method and assumptions used and may not be fully reflective of actual project costs due to the uncertain nature of the estimation process. For example, we reviewed one application that valued the proposed work at \$30 million and found that the same project was valued at approximately

\$23 million using the Marshall & Swift method and at approximately \$48 million using another industry comparator, based on similar assumptions. It is important for the City to implement a fair and consistent process that results in the most efficient method of charging fees that reflect the City's cost of providing building permit services.

## 2.1 Administration of Building Permit Fees

30. HRB and BRB assessed the vast majority of building permit fees for new buildings. The City's Enquiry Centre also processed a small proportion of new construction applications (14 out of 1,174 records, or 1.19 per cent, with a total permit fee value 0.04 per cent).

31. The City charged building permit fees through the following process:

- The City received applications and determined the value of the proposed work to use as the basis for the building permit fee. HRB and BRB carried this out differently, as explained in the "What we found" sections for each branch.
- Project Coordinators (PCs), or certified professionals (CPs) involved in BRB-processed permits, entered the assessed value they had determined into the City's POSSE system, which then applied a formula based on the City's Schedule of Fees. The City reviewed and updated this schedule during the audit period as part of a regular annual process.

### POSSE

POSSE is the City's primary information technology system that receives building permit applications, identifies payments and processes permit applications.

32. The following permits were completed by the two primary branches during the audit period:

**Exhibit 3: Value of Permits for New Buildings by Branch**

| Branch                 | Permits Created and Issued For New Buildings (Jan. 1, 2021 to June 30, 2022) | Total Estimated Value of Construction | Total Value of Permit Fees |
|------------------------|--|---------------------------------------|----------------------------|
| Housing Review Branch  | 1,096  | \$634,049,223                         | \$3,843,951                |
| Building Review Branch | 64   | \$3,181,553,643                       | \$17,203,593               |

### *What we looked for*

33. We examined the way in which the building permit fee process was administered by both HRB and BRB. We examined the branches' processes to determine whether they were designed to comply with relevant sections of the *Building By-law*.

34. We also looked at whether administrative processes were clearly defined, well understood and appropriately resourced, to support staff in consistently processing building permit fees.
35. To better understand how consistently the City implemented its administrative processes, we examined a representative sample of 64 permits (out of 1,096) that were issued by HRB and reviewed all 64 permits issued by BRB.
36. We examined whether DBL provided sufficient guidelines and information and set clear expectations for building permit applicants to provide reasonable and supportable estimates of the value of the proposed work they were to include in their applications, upon which the building permit fees were to be based.

### ***What we found – Housing Review Branch***

#### ***2.1.1 Although the Housing Review Branch had designed a simplified process to consistently assess the estimated value of the proposed work, the Building By-law did not provide authority for its approach***

37. Municipal by-laws provide authority to staff to carry out a range of activities. It is important for the City to ensure that administrative processes are carried out as intended by its by-laws, and that by-laws are up-to-date. Administering by-laws in a consistently fair manner provides good service to the community, inspires trust, and reduces the risk of applicants appealing decisions.
38. The City's *Building By-law* requires building permit applicants to file an application in writing using the building permit application form prescribed by the CBO and submit the requisite permit fee, in accordance with the Schedule of Fees. The application form includes a mandatory question asking the applicant to state the value of the proposed work. The *Building By-law* intends this to be the basis for the fee calculation, unless the CBO decides to substitute a different value using the Marshall & Swift valuation method.
39. However, instead of using Marshall & Swift, HRB used a standard square footage multiplier of \$250 to calculate building permit fees for the applications it processed. The multiplier was applied to the 'net floor area<sup>1</sup>' derived by the PC who assessed the application. The net floor

---

<sup>1</sup> or 'total floor area (net of exclusions)'

area was not an entry on the application form; PCs derived it from information provided in the architectural site plans included in each permit application package.

40. This process allowed HRB to assess applications in a consistent and straightforward manner. Since the multiplier was a single value designed to be applied equally, variability in fees depended solely on the net floor area provided by applicants. Applicants with higher net floor areas paid more fees than those with lower net floor areas.
41. Staff told us that this multiplier had been used without change for ten years or more, and was based on historical data and consultation with industry; however, DBL had no written record of when the multiplier was developed, which sources of information were used to derive it, or the assumptions built into it. Staff who had been with the City for many years recalled the department using Marshall & Swift in the past, and that it was an extensive exercise, involving more significant effort and resources than applying a square footage multiplier. Using a multiplier is a more straightforward and consistent way to process the fee component of building permit applications.
42. We were told that management's expectation was that PCs would review the value of the proposed work – when the applicant had entered a project value on the form – and base the fee calculation on the higher of:
  - The value provided by the applicant; and,
  - The value derived by applying the multiplier to the net floor area of the structure.
43. In our review of applications processed by HRB, we found that only 52 per cent of them included a value of the proposed work and the remaining 48 per cent did not. Staff told us that because the standard process was to calculate fees using the multiplier method designed by the department, they did not always follow up with applicants for their estimates when the value was missing from the application form.
44. The *Building By-law* states that the fee should be based on the value of the proposed work as stated on the permit application, or that a different value may be substituted by the CBO using the Marshall & Swift valuation method. The City's practices of inserting its own values into incomplete applications and replacing applicants' estimates with a calculation developed by the branch – that was not based on the Marshall & Swift valuation method – were not in compliance with the by-law.



### *2.1.2 We found inconsistencies in how the Housing Review Branch applied the multiplier to calculate fees*

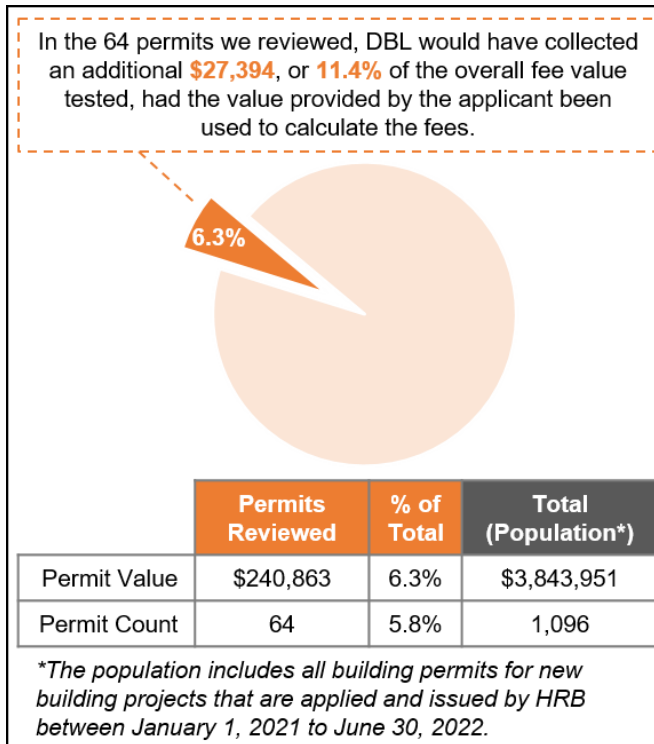
45. To ensure that applicants are charged fairly and in accordance with City by-laws and direction, administrative processes should be implemented with an appropriate level of consistency.
46. HRB did not have a formal, documented process to ensure consistency when assessing building permit fees.

#### ***Use of stated value of the proposed work or HRB's calculation***

47. Staff told us that their administrative process was designed to use the value of the proposed work to calculate the building permit fee if it was a higher value than HRB's calculation using the \$250 multiplier. We reviewed 64 of the 1,096 permit applications and found that the multiplier was used to calculate the fee for 97 per cent of these applications. The cost estimate provided in the application was used for only three per cent. Given that 52 per cent of applications provided a cost estimate, this represents a substitution rate of 94 per cent. Only six per cent of those applicants that provided the value of the proposed work were charged fees based on the estimate they provided.
48. Approximately 20 per cent of those applications that included an estimated value had a higher figure than HRB's calculation. We would expect to see projects with estimated values that were higher than HRB's calculation or a Marshall & Swift valuation, as these tools were intended to calculate an average value. DBL would have collected an additional \$27,394, or 11.4 per cent of the overall fee value, had the value provided by the applicant been used to calculate the fees. As the 64 permits we reviewed represent only 6.3 per cent of the total value of HRB-processed permits in the audit period, the under-collected permit revenue may be significantly higher than the amount we observed (see Exhibit 4)<sup>2</sup>.

---

<sup>2</sup> While our sample of 64 permits was representative, it was not sufficient enough to allow us to extrapolate the results across the entire population of 1,096 permits within a reasonable margin of error.



**Exhibit 4: Housing Review Branch Building Permits – Sampling Results**

49. As a point of reference from the 64 permits reviewed, for projects where staff applied the multiplier as designed, HRB collected \$12,096 more than it would have by using the estimate provided by the applicant.

**Use of net floor area in calculation**

50. We also found that approximately 16 per cent of the permit fees calculated by the City were based on a different figure than the net floor area stated in the finalized architectural plans submitted by the applicant. Examples of the discrepancies included:

- PCs using the gross floor area instead of the net floor area;
- Minor summation errors; and,
- PCs using the net floor area from the architectural plans included in the initial application instead of the final plans.

51. As a result of these inconsistencies, some fees were over-collected and some were under-collected. In the samples we reviewed DBL should have collected \$1,674 less in fees compared to the finalized net floor area calculations.

**Garages**

52. The net floor area of detached garages was excluded from HRB’s calculations, based on a practice that assumed that the cost of excluded garages had been factored into the \$250 multiplier. DBL did not have documentation to support this assumption and we found it to be a common practice by PCs. For applications that included buildings with detached garages, the City used only the net floor area of the main building to calculate the fee; however, when a garage was attached as part of a laneway house, the entire net floor area was used to calculate the fee, including the garage portion. Laneway houses accounted for 40 per cent of permit applications processed by HRB in the audit period.

53. In addition, approximately 33 per cent of the samples we tested did not include any type of garage in the scope of construction, as they included open parking pads. However, the City made no adjustments to the \$250 multiplier to factor in the absence of a garage, meaning some applicants were charged fees that included an estimated cost for a structure that was not included in their projects.

### ***HRB Summary***

54. HRB's development of a multiplier as a substitution for the stated value of the proposed work was intended to be a straightforward, consistent and fair method of calculating fees. However, the City's application of the multiplier was not authorized by the *Building By-law* in the following ways:
- The multiplier was not derived through the Marshall & Swift method; and,
  - The practice of PCs completing applications that were missing the value of the proposed work by inserting an estimate calculated by the City was not in compliance with the by-law.
55. Additionally, the department had not updated the multiplier in many years and implemented it inconsistently, resulting in some applicants being under-charged and some over-charged. By acting outside the authority of its by-law, the City also increased its risk that applicants may appeal their fee.

## ***What we found – Building Review Branch***

### ***2.1.3 The administrative processes used by the Building Review Branch complied with the Vancouver Building By-law***

56. As required by the *Building By-law*, the City used the value of the proposed work provided by the applicant as a basis to calculate building permit fees.
57. Staff told us that PCs and certified professionals were expected to use their professional judgement and experience to assess the reasonableness of applicants' submissions on the value of the proposed work. They were expected to request supplementary cost information from applicants in instances when they had to confirm that the estimates were reasonable. This was to be done at the start of the process when the application fee was charged, or when the application was being assessed (prior to the permit being issued).
58. BRB had developed a 'project value breakdown worksheet' to collect detailed information about the value of the proposed work from applicants, in cases where they requested

supplementary cost information. However, the branch had no documented guidance for the conditions under which worksheets should be requested, or any value ranges or thresholds that would prompt a review of supplementary information.

*2.1.4 The Building Review Branch did not often request detailed cost information to support the value of the proposed work submitted by applicants*

59. Collecting and reviewing detailed cost information can be a good practice for verifying the completeness, general accuracy and consistency of fee assessments applied to different applications. This is most important when incomplete or unreasonable estimates could result in fees of a significant value being undercharged.
  
60. We found that staff collected worksheets in two out of the 64 permit applications we assessed. PCs altered the value of the proposed work in both cases. In these two cases, estimates increased by a total of \$774,000 (21 per cent), resulting in an additional \$4,182 in fees payable to the City. We found no documentation to indicate how the branch determined that the project values indicated in the remaining 62 permits were acceptable. The City did not require supplementary cost information to demonstrate the completeness and reasonableness of those estimates. The lack of documented guidance for staff on how to determine the acceptability of cost estimates and when to seek supplemental cost information may increase the risk of the City undercharging fees.

**Recommendation 1:**

The Development, Buildings and Licensing department should address discrepancies between the *Building By-law* and the administrative design of the City of Vancouver's building permit fee assessment process by either:

- Redesigning processes to more explicitly comply with the *Building By-law* and address risks of under-charging or over-charging fees; or,
- Researching and recommending to Council amendments to the *Building By-law* to include a different method for charging building permit fees that is consistent, reliable, equitable and more efficient than using the value of the proposed work submitted by applicants as a basis for charging fees, taking the following into consideration:
  - The alignment of the selected method with the purpose of charging fees in order to recover the full cost of providing the service of issuing permits; and,
  - Developing a transparent method for calculating fees that can be consistently and accurately applied, with administrative efficiency (which may be unique to different types of buildings).

#### **Ontario's approach to calculating building permit fees**

In recent years, local governments in Ontario have moved away from using overall project estimates submitted by applicants to calculate building permit fees. Instead, Ontario jurisdictions use a tiered floor area calculation that applies standard unit multipliers for different types of structures. Applicants use the gross floor area and multiply by the appropriate standard unit to calculate building permit fees.

This process is simple for staff to administer and transparent for applicants to follow. Also, because the size, type and characteristics of a structure may have a more direct impact on the activities required to approve a permit than the estimated value of the building, this approach may be better aligned with the objective of charging a fee that is generally reflective of the cost to provide the service.

#### **Approach to building permit fees by other B.C. local governments**

We reviewed the by-laws related to building permit fees from eight other B.C. local governments. All eight based their fees on the value of construction; however, some by-laws were less restrictive about the tools the Chief Building Official (CBO, or equivalent position) could use to calculate the valuation. These by-laws allowed for calculations by the CBO that were reasonable, practical and expedient, or based on construction price indices.

One local government identified a value to be applied to calculate the estimated construction value, by square foot or square meter, based on the type of building and type of construction, similar to Ontario.

## ***What we found – Housing Review and Building Review Branches***

### ***2.1.5 Neither branch had written procedures or guidance for the building permit fee assessment process***

61. Standardized procedures can support the consistent application of administrative processes. When procedures are documented, they can be more accessible and provide approved, standardized guidance that can reduce errors resulting from misunderstandings, misinterpretation or informal changes to practices. Documented procedures also help to maintain organizational knowledge, which is important for assisting new staff to become efficient at applying administrative procedures accurately. Reductions in errors would help the City maintain public trust and ensure that fees are charged and collected to fund services for citizens.
62. DBL did not have any written standard operating procedures or guidance for the building permit fee assessment process. Staff told us that PCs relied on informal guidance from supervisors, colleagues, or publicly available checklists to confirm that the required information was captured to calculate and process building permit fees.
63. Staff told us that PCs received training before being independently allowed to process building permit applications. Training materials delivered to PCs focused on building code compliance and did not include information on building permit fees.
64. Management and staff described the City's administrative processes for determining building permit fees. Other than the three types of inconsistencies found in HRB's assessments, we did not observe significant deviations from the described processes for either branch.
65. The *Building By-law* states that adjustments to building permit fees are required if there is an increase in the value of the proposed work after an application was submitted or after a permit was revised. Staff in both branches described reviewing revised applications to look for changes that would increase the value. We did not find evidence that staff made or should have made changes.
66. We found one BRB-issued permit where the architectural plan changed after the permit was approved, but a change to the building permit fee was not required as the change to the structure would likely not have significantly altered the project value.

67. Of the 64 HRB permits we examined, at least ten had updates to permits after they were issued, but none of these included alterations to the net floor area, so no adjustments were made or needed to be made to building permit fees.

**Recommendation 2:**

The Development, Buildings and Licensing department should develop written guidelines or standard operating procedures for staff to follow when administering processes to determine building permit fees and provide training to staff on the processes.

### *2.1.6 The Marshall & Swift valuation method was not used to validate cost estimates provided by applicants*

68. The use of the Marshall & Swift valuation method is included in the *Building By-law* as an optional tool for the CBO to use to calculate the building permit fee. Although staff told us that Marshall & Swift had sometimes been used by DBL in the past, most PCs we asked were not familiar with Marshall & Swift and neither branch used it to validate cost estimates or substitute a different value for the proposed work.
69. As the branches were not using Marshall & Swift as a tool to calculate building permit fees, no resources or training were available for PCs on this methodology.

*2.1.7 The Development, Building and Licensing department did not provide detailed guidance to applicants to ensure that project cost estimates submitted in building permit applications were complete, reasonable and supportable*

70. Clear and complete guidance can help ensure that requirements are transparent and well understood between parties. Clear guidance can reduce the time required to clarify expectations, complete tasks, clear up misunderstandings, and promote consistency of interpretation.
71. The *Building By-law* requires applicants to state a value of the proposed work that includes “the total current monetary worth of all proposed materials, construction and work related to the building.”
72. However, the City’s building permit application form included minimal information on the City’s expectations of what to include in the value of the proposed work.
73. The only direction on the form is that applicants should include “all plans, material and labour costs.” Publicly available information on the City’s website included information and resources related to building permits but did not provide additional details for applicants on what should be included in the project cost estimate on their application form.

**Definition of the Value of the Proposed Work**

The *Building By-law* defines the elements that should be included in the total current monetary worth of the building proposed in a building permit application:

- All proposed materials, construction and work related to the building;
- All labour and all fees and costs incurred for design, investigative testing, consulting services, construction, construction management, contractor’s profit and overhead, sales taxes and construction insurance related to the building;
- The market value of all labour, including unpaid labour provided by an owner or volunteer and the market value of all materials, including donated, recycled or used materials; and,
- The value shall include all components of the building, notwithstanding the fact that some components of the building may be subject to other permits and fees.

Source: *Vancouver Building By-law No 12511*  
Division C: Administrative Provisions Section 1.6.2.3

**Recommendation 3:**

The Development, Buildings and Licensing department should enhance the guidance provided to building permit applicants in order to support applicants’ inclusion of complete and accurate information in their application forms.



## 2.2 Accuracy of Building Permit Fees

### *What we looked for*

74. We assessed whether management had information, reports or measurements to determine the relative accuracy of the assessment of building permit fees by HRB and BRB.
75. We also looked at a selection of permits from both branches that were created and issued during our audit period. We reviewed the building permit submissions to determine whether the fees charged to applicants were within a reasonable range of the estimated construction value using the Marshall & Swift method, as authorized by the *Building By-law* as a substitute for the value of the proposed work submitted by applicants.
76. We analyzed the final permit fees assessed by both branches to see whether, once the proposed value of the work was entered into the City's POSSE system, the City assessed fees correctly in accordance with the values included in the City's Schedule of Fees for Development & Building Related Permits.

### *What we found – Housing Review and Building Review Branches*

#### *2.2.1 Building permit fees were accurately calculated using the values prescribed in the City's Schedule of Fees*

77. We found that 100 per cent of the time (for both HRB and BRB), the City calculated building permit fees using the values prescribed in the City's Schedule of Fees for Development & Building Related Permits, which identified the amount to be charged against the estimated cost of the work. The City completed this process using its POSSE system, which calculated the final fee based on the assessed value (value of the proposed work) after it was entered into the system.

#### *2.2.2 The Development, Building and Licensing department did not consistently collect or review information, reports, or measures to determine or monitor (at an aggregate level) whether building permit fees were correctly assessed*

78. Monitoring and reporting on the results of work performed is an important management tool to help ensure that the correct processes are followed, and that staff have the tools they require to complete their tasks efficiently, consistently and accurately.

79. We found that neither branch had information or reports to support monitoring to ensure that the value of the proposed work, or the values substituted by HRB, were assessed consistently. Although we saw evidence of errors being corrected, we found no formalized process to identify data entry errors in either branch.
80. DBL did not have performance measurements or targets to guide the processing of building permits or building permit fees. This audit did not set out to examine the alignment between revenue collected through building permit fees and the cost of administering building permits. That topic is a component of the OAG's concurrent audit of the City's Permitting Program Cost Recovery Model and any relevant findings for DBL will be reported there.

#### **Recommendation 4:**

The Development, Buildings and Licensing department should develop a process, utilizing information available in POSSE, to monitor for administrative consistency of the building permit fee process to ensure that fees are being assessed correctly.

### ***What we found – Housing Review Branch***

#### ***2.2.3 For projects we reviewed, the value of the proposed work was within a reasonable range of the values calculated using Marshall & Swift***

81. We completed a detailed review of five building permit applications of different types, processed by HRB during our audit period. We undertook this analysis in order to validate whether the value of the proposed work used by the City to calculate fees was reasonably accurate compared to using the Marshall & Swift method of determining estimated construction value. Through this process we also sought to validate the multiplier used by the City in place of values provided by applicants. The types of applications we looked at included:
- Laneway house;
  - One-family dwelling;
  - One-family dwelling with secondary suite;
  - Two-family dwelling; and,
  - Two-family dwelling with secondary suite.

82. We found that in these five permits, the value of the proposed work that was used as a basis to apply the Schedule of Fees was within four to 16 per cent of the amount we assessed using the Marshall & Swift valuation tool, as referenced in the *Building By-law*.
83. Estimated values used by HRB to determine fees were generally slightly higher than the re-assessment using Marshall & Swift. However, the multiplier used by the City was developed many years ago and has not been updated or adjusted. Marshall & Swift valuations for the permits we examined increased by 26 per cent from January 1, 2021, to August 31, 2022, and building construction price indices published by Statistics Canada show that the average construction cost for residential buildings in Vancouver increased by 44 per cent from 2017 to 2022 (Q2).
84. Although the amounts calculated by the City were within a reasonable range during the time period of the audit, this appears to be more by chance than by design. Due to the significant escalations of construction costs noted above, estimated values calculated by HRB were likely higher than Marshall & Swift estimates would have been in previous years and will likely soon be lower if the City continues to use the \$250 multiplier.

### ***What we found – Building Review Branch***

#### ***2.2.4 For projects we reviewed, the value of the proposed work was within a reasonable range of the values calculated using Marshall & Swift***

85. We completed a detailed review of three building permit applications of different types, processed by BRB during our audit period. The types of applications we looked at included:
- A non-dwelling related building processed by a CP;
  - A dwelling-related building processed by a CP; and,
  - A dwelling-related building processed by a PC.
86. The values used by BRB were between eight per cent below and 23 per cent above the values resulting from our application of Marshall & Swift. While this is a wide range, we have concluded that it is reasonable given that the Marshall & Swift valuation is based on an average estimate of projects with similar build quality, and the uncertainties inherent with construction estimates.

***Estimates provided for rezoning applications compared to building permit fee applications***

87. We identified that some building permit applicants were required to submit cost estimates to the City's Rezoning Centre at an earlier rezoning phase for buildings that required Community Amenity Contributions (CAC) to be paid to the City, and noted discrepancies between the estimates provided for the same buildings at different stages. While there may be reasonable explanations for these differences, such as changes in project scope and differing definitions of cost, BRB did not review these sets of estimates to determine if the differences were indeed reasonable.
88. We decided not to expand the scope of this audit to examine CACs, and we are considering undertaking a subsequent review that will examine in more depth the inconsistencies we observed.

**Recommendation 5:**

The Building Review Branch should review the value of the proposed work submitted for projects that have provided estimates during rezoning applications (for Community Amenity Contribution requirements) to determine if they would assist in assessing the reasonability of the values provided in building permit applications.

## Appendix A: Response from the Development, Buildings and Licensing Department

---

### *Overall Comments*

I'd like to thank the Auditor General's office for the high level of professionalism displayed throughout the audit process and for the patience with the availability of staff and subject matter experts during this time.

It is important to acknowledge that senior management in DBL was receptive to the opportunity to participate in an independent assessment of the current cost valuation process and procedures for calculating building permit fees for new construction, and to gain insights into the administration of the program.

The audit process was inclusive, transparent and well received by impacted staff teams. The audit offered an opportunity to gain a fulsome understanding of the departmental administration of the cost valuation program and to identify inconsistencies and opportunities for improvement.

DBL senior management team acknowledges the value of this audit process, the findings detailed in the report, and is supportive of the five recommendations put forward regarding changes and modifications to the administration of the program.

The DBL team also acknowledges the complexities of the current cost valuation tool recognized in the *Vancouver Building By-law*, which may have contributed to some of the inconsistencies identified, and will be exploring other acceptable industry tools that may offer a simplified cost valuation methodology.

**Andrea Law**

General Manager

Development, Buildings and Licensing  
City of Vancouver

## Auditee’s Action Plan

Exhibit 5: The Development, Buildings and Licensing Department’s Action Plan

| Recommendation  | Management Response and Next Steps  | Responsibility  | Target Date                   |
|---|---|---|-------------------------------|
| <p><b>Recommendation 1</b></p> <p>The Development, Buildings and Licensing department should address discrepancies between the <i>Building By-law</i> and the administrative design of the City of Vancouver’s building permit fee assessment process by either:</p> <ul style="list-style-type: none"> <li>• Redesigning processes to more explicitly comply with the <i>Building By-law</i> and address risks of under-charging or over-charging fees, or</li> <li>• Researching and recommending to Council amendments to the <i>Building By-law</i> to include a different method for charging building permit fees that is consistent, reliable, equitable and more efficient than using the value of the proposed work submitted by applicants as a basis for charging fees, taking the following into consideration:               <ul style="list-style-type: none"> <li>○ The alignment of the selected method with the purpose of charging fees in order to recover the full cost of providing the service of issuing permits; and,</li> <li>○ Developing a transparent method for calculating fees that can be consistently and accurately applied, with administrative efficiency (which may be unique to different types of buildings).</li> </ul> </li> </ul> | <p>The Development, Buildings and Licensing department agrees with the recommendation, and will implement actions for both components:</p> <p>Action: Staff to develop standardized processes to ensure consistency in how fees are charged across business units.</p> <p>Action: Staff to provide recommendations to Council reflecting amendments to the <i>Vancouver Building By-law</i> to consider alternate methods for calculating fees.</p> | <p>Chief Building Official; and,</p> <p>Director, Permitting Services</p> | <p>Q2 2023</p> <p>Q4 2023</p> |

|  |   |  |                |
|--|---|--|----------------|
| <p><b>Recommendation 2</b></p> <p>The Development, Buildings and Licensing department should develop written guidelines or standard operating procedures for staff to follow when administering processes to determine building permit fees, and provide training to staff on the processes.</p> | <p>The Development, Buildings and Licensing department agrees with the recommendation.</p> <p>Action: Create standard operating procedures for staff charged with administering building permit fees.</p>               | <p>Chief Building Official; and,<br/><br/>Director, Permitting Services</p>    | <p>Q2 2023</p> |
| <p><b>Recommendation 3</b></p> <p>The Development, Buildings and Licensing department should enhance the guidance provided to building permit applicants in order to support applicants' inclusion of complete and accurate information in their application forms.</p>                          | <p>The Development, Buildings and Licensing department agrees with the recommendation.</p> <p>Action: Amend the application process and forms to provide greater clarity for applicants regarding fee calculations.</p> | <p>Chief Building Official; and,<br/><br/>Director, Permitting Services</p>    | <p>Q2 2023</p> |
| <p><b>Recommendation 4</b></p> <p>The Development, Buildings and Licensing department should develop a process, utilizing information available in POSSE, to monitor for administrative consistency of the building permit fee process to ensure that fees are being assessed correctly.</p>     | <p>The Development, Buildings and Licensing department agrees with the recommendation.</p> <p>Action: Staff to explore mechanism in POSSE to report out on accuracy in the</p>  | <p>Director, Permitting Services; and,<br/><br/>Director, Digital Services</p> | <p>Q3 2023</p> |

|   |  |   |                |
|---|--|---|----------------|
|   | <p>calculation of fees and monitor to ensure fees are assessed correctly and consistently.</p>   |   |                |
| <p><b>Recommendation 5</b></p> <p>The Building Review Branch should review the value of the proposed work submitted for projects that have provided estimates during rezoning applications (for Community Amenity Contribution requirements) to determine if they would assist in assessing the reasonability of the values provided in building permit applications.</p> | <p>The Development, Buildings and Licensing department agrees with the recommendation.</p> <p>Action: Work with Planning, Urban Design and Sustainability to review and assess estimates provided for Community Amenity Contributions at rezoning and consider the merits of aligning values at the building permit stage.</p> | <p>Senior Manager, Business Services and Strategic Compliance</p> | <p>Q2 2023</p> |



## Appendix B: About the Audit

---

This report presents the results of a performance audit conducted by the Office of the Auditor General for the City of Vancouver (OAG) under the authority of the *Auditor General By-Law No 12816*. All work in this audit was performed to a reasonable level of assurance in accordance with the Canadian Standard on Assurance Engagements (CSAE) 3001 – Direct Engagements, set out in the CPA Canada Handbook – Assurance.

The Office of the Auditor General applies Canadian Standards on Quality Management, CSQMs 1 and 2 which require it to maintain a comprehensive system of quality management, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

The OAG complies with the independence, other ethical requirements and rules of professional conduct of Chartered Professional Accountants of British Columbia (CPABC) applicable to the practice of public accounting and related to assurance engagements and the standards of conduct of the City of Vancouver.

### Objective

The objective of the audit was to determine whether the City of Vancouver's (the City) Development, Buildings and Licensing department (DBL) implemented processes to accurately and consistently assess building permit fees in compliance with the *Vancouver Building By-law No 12511 (Building By-law)*.

### Period Covered by the Audit

The audit covered the period of January 2021 to June 2022. The audit included materials produced prior to January 2021 that were used as policies, guidance or administrative processes during the audit period (for example, the *Building By-law*). We conducted our examination work from July to November 2022, and completed the audit on January 18, 2023.

### Audit Scope and Approach

The scope of this audit includes processes related to building permit fees for new construction administered by BRB and HRB under DBL's Permitting Services.

The scope of this audit does not include:

- Building permit fee processes for renovation projects, as these projects are typically low-cost and collectively only make up about eight per cent of fees;
- Other permits, such as zoning and development permits and associated fees;

- The collection of fees and financial processes and controls administered by FRS; or,
- Building permit issuance timeliness and enforcement.

The audit also did not include an examination of the City's permitting program cost recovery model, which is the subject of a separate, concurrent audit.

We used several methods to obtain sufficient and appropriate audit evidence. We reviewed available documentation, interviewed key internal stakeholders, including building permit stream managers and other staff and met with external stakeholders. We reviewed building permit samples and undertook analytical procedures to assess the reasonability of cost estimates by comparing the value of the proposed work of eight projects with estimates we generated using the Marshall & Swift valuation method.

We believe the audit evidence obtained is sufficient and appropriate to provide a basis for our conclusion.

### ***Audit Criteria***

A performance audit uses specific criteria that are determined in advance to assess how the department or program is performing in the area being examined. Criteria are intended to be reasonable expectations of how a program, operation, system or practice is managed to achieve intended results.

We used the following criteria in this audit:

#### **Exhibit 6: Audit Criteria**

| Lines of Enquiry  | Criteria   |
|---|--|
| <p><b>Line of Enquiry:</b></p> <p><b>Building permit fee administrative processes and practices</b></p> | <p>Administrative processes for determining building permit fees were designed to reasonably comply with the <i>Vancouver Building By-law</i></p> <p>Administrative processes for determining building permit fees were clearly defined, well understood, and appropriately resourced</p> <p>The processes used to determine the building permit application fees were applied with appropriate consistency in different streams</p> <p>DBL effectively utilized the Marshall &amp; Swift valuation method, where appropriate, to validate cost estimates provided by applicants</p> |

|   |   |
|---|---|
|   | DBL provided sufficient guidelines and information and set clear expectations for applicants on the provision of reasonable and supportable estimates |
| <b>Line of Enquiry:</b><br><br><b>Accuracy of building permit fees assessed</b> | The correct building permit fees were assessed and applied by DBL   |

DBL acknowledged its responsibility for the subject matter of this report and agreed with the suitability of the criteria we applied.

### ***Follow Up***

The recommendations within this report will be included as part of the OAG's semi-annual follow-up process agreed to by Council.