



City of Richmond

Report to Committee

To: General Purposes Committee **Date:** August 31, 2023
From: Peter Russell **File:** 10-6125-07-02/2023-
 Director, Sustainability and District Energy Vol 01
Re: **2023 Zero Carbon Step Code and BC Energy Step Code Requirements for New Buildings**

Staff Recommendations

1. That Building Regulation Bylaw 7230, Amendment Bylaw 10467, which amends Sections 10.1.1 and 16.1 regarding updates to existing BC Energy Step Code and greenhouse gas intensity requirements for Part 9 residential buildings and Part 3 residential, hotel, commercial retail and office buildings, be introduced and given first reading;
2. That an owner would be permitted to submit a Building Permit application in compliance with prior requirements if:
 - (a) A Development Permit was issued by Council prior to adoption of Amendment Bylaw No. 10467; or,
 - (b) An in-stream Development Permit application in accordance with existing Zoning Bylaw provisions is issued by Council within one year of the adoption of Amendment Bylaw No. 10467, and an acceptable Building Permit application has also been submitted to the City within this timeframe.

Peter Russell
 Director, Sustainability and District Energy
 (604-276-4130)

Att. 3

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Law	<input checked="" type="checkbox"/>	
Building Approvals	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Richmond was the first local government to adopt the BC Energy Step Code in 2018, and pioneered the use of Step-level relaxations to encourage installation of, or connection to, low carbon building energy systems as a means of reducing greenhouse gas (GHG) emissions in new buildings. With adoption of the new Zero Carbon Step Code into the BC Building Code in May 2023, local authorities now have discretion to set the level of GHG emission performance that would apply to new buildings within their jurisdiction, and under what circumstances.

This report includes a proposed amendment to the City's Building Regulation Bylaw 7230 that would introduce new Zero Carbon Step Code (ZCSC) into local regulation, effective October 31, 2023. The amendment would integrate the ZCSC with current Bylaw requirements with respect to the BC Energy Step Code (Energy Step Code) for new Part 9 residential buildings such as single-detached, duplex and townhouse dwelling units, as well as Part 3 larger residential, hotel, commercial office and retail uses in Richmond.

With Provincial adoption of the ZCSC, staff proceeded to develop a proposed framework for integrating the ZCSC with current and proposed Energy Step Code requirements and engage Richmond's development community at a series of workshops and webinars in June / July 2023. With industry consultation completed, a proposed framework of ZCSC requirements for new buildings is now ready for Council consideration.

This report supports Council's Strategic Plan 2022-2026 Focus Area #5 A Leader in Environmental Sustainability:

Leadership in environmental sustainability through innovative, sustainable and proactive solutions that mitigate climate change and other environmental impacts.

5.1 Continue to demonstrate leadership in proactive climate action and environmental sustainability.

This report supports the implementation of Richmond's Community Energy and Emissions Plan 2050, and Official Community Plan emission reduction policies through:

Strategic Direction 3: Carbon Neutral New Buildings

Action Categories:

- Accelerate Transition to the Top Level of Building Performance
- Support Continuous Improvement to the BC Energy Step Code
- Advance Implementation of Low Carbon Energy Systems

Analysis

Zero Carbon Step Code – Provincial GHG Emission Reduction Framework for New Buildings

The Energy Step Code sets energy efficiency requirements in a stepped framework of increasingly more stringent performance targets for new buildings. While the Energy Step Code reduces the overall energy use intensity of a building, thereby incrementally reducing GHG emissions, it does not directly address greenhouse gas emissions by setting specific limits.

However, with adoption of the ZCSC into the BC Building Code, local governments can now voluntarily adopt greenhouse gas emission (GHG) reduction targets into local bylaw regulation by integrating ZCSC steps with Energy Step Code requirements for new buildings. With adoption of the ZCSC, the City can now set GHG emission limits for all Energy Step Code levels, without relying solely on Step-level relaxations to drive installation of low carbon mechanical systems.

The ZCSC defines specific GHG emissions limits, using a tiered approach similar to the Energy Step Code. However, unlike the Energy Step Code, where the number of performance level steps varies between building occupancies, the ZCSC has four performance levels of increasing stringency for all building types¹, as shown in Table 1.

Table 1: Zero Carbon Step Code Performance Levels for New Buildings

Emission Reduction Outcome	<ul style="list-style-type: none"> ▪ No GHG target [measure and report only] 		<ul style="list-style-type: none"> ▪ Electric HVAC <u>or</u> ▪ Electric DHW 		<ul style="list-style-type: none"> ▪ Electric HVAC <u>and</u> DHW ▪ Natural gas OK for ancillary use [e.g. gas range] 		<ul style="list-style-type: none"> ▪ Electric HVAC <u>and</u> DHW ▪ <u>No</u> natural gas equipment [for Part 3 only] 	
	Building Occupancies	EL-1	EL-2	EL-3	EL-4			
Part 9 Residential*	n.a.	6 kg / m ² / yr	2.5 kg / m ² / yr	1.5 kg / m ² / yr				
Part 3 Residential	n.a.	7 kg / m ² / yr	3 kg / m ² / yr	1.8 kg / m ² / yr				
Part 3 Office	n.a.	5 kg / m ² / yr	3 kg / m ² / yr	1.5 kg / m ² / yr				
Part 3 Retail	n.a.	6 kg / m ² / yr	3 kg / m ² / yr	2 kg / m ² / yr				
Part 3 Hotel	n.a.	9 kg / m ² / yr	4 kg / m ² / yr	2 kg / m ² / yr				

* Note: Small Part 9 homes under 175 m² of conditioned floor area have a base GHG allowance, and larger homes over 400 m² of conditioned floor space have a maximum GHG cap. All other floor areas must use kg / m² / year limit.

kg Kilograms of CO₂ equivalent emissions HVAC (heating, ventilation & air conditioning) DHW (domestic hot water)

While GHG emission intensity limits may vary slightly between building occupancies, the overall mechanical system implications at each ZCSC level are the same:

- EL-1 only requires measurement and reporting of a building’s modelled GHG emissions.
- EL-2 can be achieved through electrification of either the domestic hot water system or the space heating system within the building.
- EL-3 requires electrification of both space heating and domestic hot water systems.
- EL-4 is the most stringent level, reflecting very low GHG emission intensities that can be achieved in an all-electric building connected to BC’s electrical grid.

¹ Specific sections of the BC Building Code define minimum standards and performance requirements for the following building occupancies: Part 9 residential buildings (i.e. single-family dwellings, duplexes and multiplexes, townhomes, and small-floorplate apartment buildings up to three stories tall), as well as larger Part 3 residential apartments, commercial office and retail buildings, as well as hotel/motels.

The *CleanBC Roadmap to 2030* commits the Province to implementing increasingly stringent GHG limits for all new buildings over time. As periodic updates to the BC Building Code are made in 2024 and in 2027, Provincial staff have indicated that EL-2 and then EL-3, respectively, will become minimum requirements for all new buildings in BC, with the most stringent EL-4 level of carbon performance required for all new building types by 2030. Current Council direction is for new buildings in Richmond to reach the top level of the Energy Step Code and near-zero operational emissions (EL-4) in 2027, three years ahead of the Provincial target.

Step Code Relaxations and Administrative Provisions

Richmond pioneered the use of Step-level relaxations to encourage installation of, or connection to, a low carbon building energy system (LCES) as a means of reducing operational emissions in new buildings. In practice, this approach provides applicants the option of meeting a required level of performance, or requesting a Step-level relaxation, as long as it can be shown that the new development will include, or be ready to connect to, a LCES, as defined in the City's Building Regulation Bylaw 7230. With the introduction of the ZCSC in the BC Building Code, a municipally-defined LCES requirement is no longer necessary, as the ZCSC serves that purpose.

The proposed Building Regulation Bylaw Amendment for October 31, 2023 continues to utilize Step-level relaxations to provide applicants with multiple options for Energy Step Code and ZCSC compliance. Further details on requirements and timing are provided in Tables 2 and 3. Consistent with previous updates to Bylaw requirements in July 2020 and July 2022, the expected timing of subsequent requirements in 2025 and 2027 are also included and noted as subject to future Council approval. Similarly, the proposed framework for implementing the ZCSC considers phased timing of these requirements, thereby allowing the development community sufficient time to cost-effectively transition to higher levels of performance by improving design and construction practices, and mitigating potential supply chain issues.

Tables 2 and 3 show that Step-level relaxations will be available for both the Energy Step Code and ZCSC in 2023 and in 2025. However, once proposed new Bylaw requirements come into effect in 2027, relaxations would no longer be available, as all new buildings would need to achieve the top performance level for both Energy Step Code and ZCSC at building permit, pending future Council endorsement.

Attachment 1 includes further information on how City of Richmond has utilized Step-level relaxations.

Proposed Building Regulation Bylaw Amendment for Part 9 Residential Buildings

The proposed Building Regulation Bylaw Amendment 10467 would introduce new ZCSC requirements into local regulation, with an in-force date of October 31, 2023. Table 2 shows current and proposed bylaw requirements for new Part 9 residential buildings in Richmond. With approval of the proposed amendment, ZCSC requirements would be integrated with current Energy Step Code requirements, replacing the City's previous LCES definition.

Table 2 also shows proposed future requirements and expected timing for 2025 and 2027. As noted, the City's practice of signaling expected timing of proposed bylaw changes is appreciated

by builders, as it is helpful for project planning and understanding building envelope and mechanical system performance measures that potentially may be needed on their next project.

Given that Energy Step Code requirements for new Part 9 residential buildings in Richmond were increased in 2022, staff are not proposing further changes to building energy requirements in 2023. However, new ZCSC requirements would apply, effective October 31, 2023. Proposed requirements with respect to ZCSC are consistent with what staff communicated in the May 9, 2022 Report to Committee as a future bylaw requirement for 2023.²

Table 2: Current, Proposed and Future Performance Requirements for New Part 9 Buildings

<i>Building Types</i>	<i>Current Bylaw</i>	<i>Proposed Bylaw</i>	<i>Future Bylaw Amendments Subject to Council Approval</i>	
	<i>July 2022</i>	<i>October 2023</i>	<i>January 2025</i>	<i>January 2027</i>
Single Family Dwellings, Duplexes and Multiplexes, including Townhomes and Apartments	ESC Step 5 -or- ESC Step 4 -or- ESC Step 3 and LCES <2.5 kg/m ²	ESC Step 5 and ZCSC EL-2 -or- ESC Step 4 and ZCSC EL-3 -or- ESC Step 3 and ZCSC EL-4	ESC Step 5 and ZCSC EL-3 -or- ESC Step 4 and ZCSC EL-4	ESC Step 5 and ZCSC EL-4

ESC: BC Energy Step Code

ZCSC: BC Zero Carbon Step Code

LCES: City of Richmond Low Carbon Building Energy System requirement

Consultation

Over 70 homebuilders, designers and energy advisors attended a two-hour Builder Breakfast engagement workshop at the Library & Cultural Centre on June 27, 2023. Staff presented proposed 2023 bylaw requirements and engaged questions from participants. Attendees expressed support for the City's proposed bylaw requirements and relaxation options available, as well as timing of higher energy and carbon performance levels proposed for 2025 and 2027. Builders generally recognize that performance standards are increasing throughout Metro Vancouver and across BC due to the majority of local governments adopting the Energy Step Code, and setting GHG emission reduction targets and objectives in their climate action plans. Additionally, proposed ZCSC requirements for 2023 are identical to what staff had presented in spring 2022, resulting in no surprises.

² In that report, the ZCSC was in development and had yet to be given a name, and was referred to as 'future BC greenhouse gas intensity requirements' or 'BC GHGI', with GHGI performance levels set at 'mid-carbon', 'low-carbon' and 'zero carbon ready', which corresponds to ZCSC levels EL-2, EL-3 and EL-4 respectively.

Proposed Building Regulation Bylaw Amendment for Part 3 Buildings

The proposed Building Regulation Bylaw Amendment 10467 would introduce new ZCSC requirements into local regulation, with an in-force date of October 31, 2023. Table 3 shows proposed bylaw requirements for new Part 3 multi-unit residential apartment buildings, commercial retail and office buildings, and hotels/motels in Richmond. With approval of the proposed bylaw amendment, ZCSC requirements would be integrated with Energy Step Code requirements for these major occupancies, replacing the City's previous LCES requirements. Updated Step-level relaxations would also be available with adoption of the amendment. Table 3 also shows proposed future requirements and expected timing for 2025 and 2027.

Given that Energy Step Code requirements for new Part 3 buildings in Richmond were increased for most archetypes in 2022, staff are not recommending changes to building energy requirements in 2023. However, new ZCSC requirements would apply, effective October 31, 2023. Overall, these new requirements are consistent with what staff communicated in the May 9, 2022 Report to Committee regarding proposed 2023 requirements, aside from the following additions:

- Creating a second Energy Step Code relaxation option for Hotels/Motel occupancies in 2023, allowing new hotels to build to a less stringent Energy Step Code level 2 energy efficiency, while also achieving a more stringent ZCSC emissions performance level of EL-3. This is noted as 'Additional 2023 Option' in Table 3.
- Extending the availability of proposed Step-level relaxations for mid-rise residential wood-frame, office and retail uses in 2025. This is noted in Table 3, as 'Additional 2025 Option'.³

Together, these additions to 2023 bylaw requirements provide new compliance options for these occupancies, as building design and construction practices transition to achieve the 2027 target of the top level of Step Code energy efficiency and the most stringent level of the ZCSC.

Consultation

Staff engaged the larger building development community (Urban Development Institute members) on two separate occasions regarding the proposed amendment that would integrate ZCSC requirements with the City's Energy Step Code framework. Staff presented proposed bylaw requirements at an in-person UDI-City of Richmond Liaison Committee meeting on June 28, with 12 members of the development community attending. A second one-hour engagement session (webinar) was held on July 12, with 16 participants.

UDI representatives thanked the City for advance notice on proposed ZCSC requirements, and the Step-level relaxations that have been integrated into the framework of current, proposed and future requirements. Questions posed to staff for further analysis included high natural gas uses (e.g., restaurants) in meeting the most stringent level of the ZCSC in 2027, and capacity of the BC electrical grid to meet province-wide demand for electricity. UDI also requested staff to monitor interaction of higher Energy Step Code requirements on overall building design over

³ For Part 3 buildings, proposed bylaw requirements for October 31, 2023 pair the least stringent ZCSC EL-1 level with the highest or second highest Step Code energy efficiency level, depending upon the building type. ZCSC EL-1 requires modelling and reporting the building's GHG emissions to the City as part of Building Permit submittals.

time, as follow up to the well-received analysis done by the City in 2022 on form and character guidelines for highly energy efficient new buildings. Introduction of the ZCSC is not expected to impact building form and character, as the ZCSC focuses on reducing the greenhouse gas emissions from the building’s heating, cooling and domestic hot water systems.

Table 3: Current, Proposed and Future Performance Requirements for New Part 3 Buildings

<i>Building Occupancies</i>	<i>Current Bylaw</i>	<i>Proposed Bylaw</i>	<i>Future Bylaw Amendments Subject to Council Approval</i>	
	<i>July 2022</i>	<i>October 2023</i>	<i>January 2025</i>	<i>January 2027</i>
Hotels and Motels	ESC Step 3	ESC Step 4 and ZCSC EL-1 -or- ESC Step 3 and ZCSC EL-2	ESC Step 4 and ZCSC EL-2 -or- ESC Step 3 and ZCSC EL-3	ESC Step 4 and ZCSC EL-4
	-or- ESC Step 2 and LCES	ESC Step 2 and ZCSC EL-3	Additional 2023 option	
Residential: Concrete Frame	ESC Step 3	ESC Step 3 and ZCSC EL-1 -or- ESC Step 2 and ZCSC EL-2	ESC Step 4 and ZCSC EL-2 -or- ESC Step 3 and ZCSC EL-3	ESC Step 4 and ZCSC EL-4
	-or- ESC Step 2 and LCES			
Residential: Wood Frame (mid-rise)	ESC Step 4	ESC Step 4 and ZCSC EL-1 -or- ESC Step 3 and ZCSC EL-2	ESC Step 4 and ZCSC EL-2 -or- ESC Step 3 and ZCSC EL-3	ESC Step 4 and ZCSC EL-4
	-or- ESC Step 3 and LCES		Additional 2025 Option	
Office and Retail	ESC Step 3	ESC Step 3 and ZCSC EL-1 -or- ESC Step 2 and ZCSC EL-2	ESC Step 3 and ZCSC EL-2 -or- ESC Step 2 and ZCSC EL-3	ESC Step 3 and ZCSC EL-4
	-or- ESC Step 2 and LCES		Additional 2025 Option	

ESC: BC Energy Step Code

ZCSC: BC Zero Carbon Step Code

LCES: City of Richmond Low Carbon Building Energy System requirement

In-Stream Provisions for Development Permit Applications

When Richmond introduced Energy Step Code requirements in September 2018, and with subsequent increments in requirements in December 2020 and July 2022, in-stream provisions were available for buildings requiring a Development Permit. In-stream provisions would be applicable to buildings subject to the proposed bylaw amendment, such that an owner would be permitted to submit a Building Permit application in compliance with prior requirements if:

- a) A Development Permit was issued by Council prior to adoption of Amendment Bylaw No. 10467; or,
- b) An in-stream Development Permit application in accordance with existing Zoning Bylaw provisions is issued by Council within one year of the adoption of Amendment Bylaw No. 10467, and an acceptable Building Permit application has also been submitted to the City within this timeframe.

Next Steps

Staff will monitor compliance with new ZCSC requirements to understand the impact on permitting procedures and address any building performance, market or regulatory issues that may arise during the construction phase. Staff will also update the following bulletins to include the October 31, 2023 bylaw requirements: Building-37 Energy Step Code: Part 9 Buildings Overview; and Building-40 Energy Step Code: Part 3 Buildings.

Financial Impact

None.

Conclusion

Together with other leading municipalities, the City has advocated as far back as 2017 to the Province of BC to add GHG emission limits for new buildings to the BC Building Code, so that local governments could voluntarily adopt these requirements in local bylaw regulation, thereby supporting implementation of the BC Energy Step Code. With adoption of the new Zero Carbon Step Code into the BC Building Code in May 2023, local authorities can now set GHG emission performance requirements together with Energy Step Code requirements for new buildings.

This report includes a proposed amendment to the City's Building Regulation Bylaw 7230 that would formally introduce the Zero Carbon Step Code into local regulation, effective October 31, 2023. The amendment would integrate greenhouse gas intensity limits with current Bylaw requirements with respect to the BC Energy Step Code for new Part 9 residential buildings, as well as Part 3 multi-unit residential, hotel, commercial office and retail uses in Richmond.



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Att. 1: Other Uses of Step Code Relaxations by the City of Richmond

Other Use of Step Code Relaxations by the City of Richmond

The Province of BC Building Act states that local governments cannot set additional building requirements for new buildings where the Province already has a standard in place within the BC Building Code. However, it is possible for local governments to create additional compliance options that builders can choose to comply with, as long as the compliance option is not lower than minimum Provincial requirements.

Richmond pioneered the use of Step-level relaxations as a means of incenting low carbon energy systems (i.e., space heating and hot water) in new buildings regulated by the BC Energy Step Code (Energy Step Code). Applicants could qualify for a Step-level relaxation in the City's current bylaw requirement if their permit submittals and energy model showed planned installation of, or readiness to connect to, a low carbon energy system (LCES). This approach helped incentivize LCES when there was no mechanism within the BC Building Code to directly regulate GHG emissions from new buildings.

However, the City's ability to incent carbon reduction outcomes by providing options for applicants is not restricted to emission reductions. Since 2022, the City has leveraged the use of Step-level relaxations to discourage the use of the inferior 'Percent Better than Reference House' metric, which was added to the BC Building Code in December 2019 as an additional thermal envelope metric for the Part 9 residential Energy Step Code. Analysis by City staff showed that this new metric was inferior to existing thermal energy demand metrics already within the Energy Step Code, and would likely be utilized by applicants as an easier path to achieve compliance. This situation still exists, and the Province has not addressed this issue to date, despite advocacy by both City Council and staff regarding this matter.¹

The most recent amendment to the Building Regulation Bylaw in July 2022 included an administrative requirement limiting the use of the Percent Better than Reference House metric only to buildings reaching the highest Energy Step Code level. This approach is consistent with the City's ability to administratively set additional performance conditions as part of Energy Step Code regulation, as long as there is at least one option available with no such condition.

¹ See report titled: City of Richmond Concerns on Recent Changes to the BC Energy Step Code, from the Director, Building Approvals, and the Director, Sustainability and District Energy. Recommendations approved by Council on October 26, 2020. https://citycouncil.richmond.ca/agendafiles/Open_Council_10-26-2020.pdf



**Building Regulation Bylaw No. 7230,
Amendment Bylaw No. 10467
(2023 Step Code Requirements for New Buildings)**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. *Building Regulation Bylaw No. 7230*, as amended, is further amended by deleting Section 10.1.1 and replacing it with the following:

“10.1.1 Part 3 and Part 9 **buildings** and **structures** must be designed and **constructed** in compliance with the applicable step of the **energy step code** and the applicable GHG emission level of the **zero carbon step code** as set out in the schedule below:

<i>Buildings subject to Part 9 of the Building Code</i>				
Building Type	Building permit application filed on or after September 1, 2018	Building permit application filed on or after December 15, 2020	Building permit application filed on or after July 1, 2022	Building permit application filed on or after October 31, 2023
Townhomes and apartments	Step 3	Step 3 OR Step 2	Step 5 OR Step 4 (using absolute metrics for the building envelope performance requirement)	Step 5 and EL-2 OR Step 4 (using absolute metrics for the building envelope performance requirement)
Single family, duplex and other dwelling units	Step 1	and a low carbon building energy system	OR Step 3 (using absolute metrics for the building envelope performance requirement) and EL-3	and EL-3 OR Step 3 (using absolute metrics for the building envelope performance requirement) and EL-4

<i>Buildings subject to Part 3 of the Building Code</i>				
Building Type	Building permit application filed on or after September 1, 2018	Building permit application filed on or after December 15, 2020	Building permit application filed on or after July 1, 2022	Building permit application filed on or after October 31, 2023
Hotels and Motels	n.a.	Step 3 OR Step 2 and a low carbon building energy system	Step 3 OR Step 2 and a low carbon building energy system	Step 4 and EL-1 OR Step 3 and EL-2 OR Step 2 and EL-3
Other Group C Residential occupancies greater than 6 stories or non-combustible construction (not including hotel and motel occupancies)	Step 3 OR Step 2 and a low carbon building energy system		Step 3 OR Step 2 and a low carbon building energy system	Step 3 and EL-1 OR Step 2 and EL-2
Other Group C Residential occupancies 6 stories or less and combustible construction (not including hotel and motel occupancies)	Step 3		Step 4 OR Step 3 and a low carbon building energy system	Step 4 and EL-1 OR Step 3 and EL-2
Group D Business and personal services occupancies or Group E mercantile occupancies	Step 2		Step 3 OR Step 2 and a low carbon building energy system	Step 3 and EL-1 OR Step 2 and EL-2

2. *Building Regulation Bylaw No. 7230*, as amended, is further amended at Section 16.1 by adding the following definitions in alphabetical order:

“EL-1 means the requirements of GHG emission level EL-1, as set out in the **Zero Carbon Step Code**.

EL-2 means the requirements of GHG emission level EL-2, as set out in the **Zero Carbon Step Code**.

EL-3 means the requirements of GHG emission level EL-3, as set out in the **Zero Carbon Step Code**.

EL-4 means the requirements of GHG emission level EL-4, as set out in the **Zero Carbon Step Code**.

ZERO CARBON STEP CODE means the requirements set out in Sections 9.37 and 10.3 of the **building code** and includes GHG emission level EL-1, EL-2, EL-3 and EL-4.”

3. *Building Regulation Bylaw No. 7230*, as amended, is further amended at Section 16.1 by deleting b) of the definition of “Low Carbon Building Energy System” and replacing it with the following:

“b) for **buildings** subject to Part 9 of the **building code**, modelled annual GHG emissions from **building** energy use of:

- i) no more than 1200 kg CO₂e per dwelling unit per year; or
- ii) no more than 6 kg CO₂e per spare meter of conditioned floor space per year;”

- 4. This Bylaw may be cited as **“Building Regulation Bylaw No. 7230, Amendment Bylaw No. 10467”**.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

CITY OF RICHMOND
APPROVED by

APPROVED by Manager or Solicitor
BRB