Subject: Cultural Heritage Evaluation of the former Canadian Pacific Railway Bridge

File Number: ACS2023-PRE-RHU-0015

Report to Built Heritage Committee on 11 April 2023

and Council 26 April 2023

Submitted on March 28, 2023 by Court Curry, Director, Right of Way, Heritage, and Urban Design Services, Planning, Real Estate and Economic Development

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Ward: Capital (17)

Objet : Évaluation du patrimoine culturel du pont de l'ancien Chemin de fer Canadien Pacifique Limitée

Dossier : ACS2023-PRE-RHU-0015

Rapport au Comité du patrimoine bâti

le 11 avril 2023

et au Conseil le 26 avril 2023

Soumis le 28 mars 2023 par Court Curry, Directeur, Services des emprises, du patrimoine, et du design urbain, Services de la planification, des biens immobiliers et du développement économique

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REPORT RECOMMENDATION(S)

That the Built Heritage Committee recommend that Council:

1. **Receive the Heritage Evaluation and Analysis Report attached as Document 5 for information**
2. **Direct Heritage and Infrastructure & Water Services Staff to ensure that the Municipal Class Environmental Assessment includes:**
    - **Identification and consideration of the Cultural Heritage Value of the Canadian Pacific Railway Bridge, as identified in Document 5**
    - **An evaluation of all renewal options, including a rehabilitation option that would include the retention of the bridge**
3. **Direct Staff to report back to Built Heritage Committee on the findings of the Municipal Class Environmental Assessment and provide a recommendation regarding designation under Part IV of the *Ontario Heritage Act***

RECOMMANDATION(S) DU RAPPORT

Que le Comité du patrimoine bâti recommande au Conseil :

1. **de prendre connaissance du Rapport d'analyse et d'évaluation du patrimoine présenté en pièce jointe comme document 5;**
2. **de demander au personnel de la Planification du patrimoine et des Services d'infrastructure et d'eau de veiller à ce que l'évaluation environnementale municipale de portée générale comprenne ce qui suit :**
    - **Description et étude de la valeur du pont sur le plan du patrimoine culturel, qui se trouve dans le document 5;**
    - **Évaluation des options de renouvellement, y compris l'analyse d'une option de réfection qui permettrait la préservation du pont;**
3. **Demander au personnel de présenter au Comité du patrimoine bâti un rapport faisant état des constatations de l'évaluation environnementale municipale de portée générale et de fournir une recommandation concernant la désignation en vertu de la partie IV de la *Loi sur le patrimoine de l'Ontario***

BACKGROUND

The former Canadian Pacific Railway (CPR) Bridge is located on the Rideau River, south of the Highway 417 and adjacent to the University of Ottawa Lees campus. The east end of the bridge connects to the Rideau River Eastern Pathway and the west end

of the bridge connects to the Rideau River Nature Trail and O-Train pedestrian path (Document 1).

The CPR bridge was constructed in 1898. It is an eight-span, steel girder bridge that crosses the Rideau River (Document 2). The bridge carried a single railway track for the Canadian Pacific Railway until it was removed from service in 1966. The bridge was converted to a pedestrian use sometime between 1966 and 1996 and was retained by the City of Ottawa in 1996. The bridge has no heritage status; it is not designated under the *Ontario Heritage Act* or listed on the City of Ottawa Heritage Register.

In 2018, the City retained Parsons Inc. to conduct a Detailed Condition Assessment and Renewal Option Analysis Report for the bridge (Document 3). The report concluded that the structure is in overall poor condition and presented two options: major rehabilitation or structure replacement. Based on engineering assessments, staff in the Asset Management Branch have made a preliminary determination that the replacement option is preferred; however, a detailed evaluation of both alternatives will take place through the Environmental Assessment (EA) process.

On May 12, 2022, Heritage Staff received a memo from Barry Padolsky, a member of Built Heritage Sub-Committee, requesting that staff undertake an assessment of the cultural heritage value of the bridge and conduct a peer review of the condition assessment, with a focus of evaluating the feasibility of retaining the bridge.
At the August 23, 2022, Built Heritage Sub-Committee meeting, a motion was introduced, which was then carried at the October 3, BHSC meeting, with the following directions to staff:

1. To undertake an evaluation of the heritage value of the former CPR Rail Bridge for possible designation under Part IV of the *Ontario Heritage Act*;

2. To submit a report on the heritage evaluation with recommendations on the proposed designation to the BHSC and City Council before the end of Q1 2023;

3. To consider stabilization works if needed, in addition to the works as recommended in the 2018 engineering consultant’s Condition Assessment and Options Analysis report to prevent additional deterioration of the bridge in the event that staff recommend a notice of intent to designate the property and in the event that the bridge is added to the Heritage Watchlist.

This report addresses these directions to staff.

DISCUSSION

Recommendation 1:

Cultural Heritage Evaluation

Staff researched and evaluated the former CPR bridge using the criteria in Ontario Regulation 09/06 (Document 4) for designation under the *Ontario Heritage Act* (OHA). A property may be designated under Section 29 of the *Ontario Heritage Act* if it meets two or more of the nine criteria, which can be generally grouped into the categories of architecture, history and context. The full evaluation is available in the Heritage Analysis and Evaluation Report, attached as Document 5.

Architecture

The CPR Bridge was constructed in 1898 for the Montreal & Ottawa Railway to facilitate Canadian Pacific Railway's Montreal and Ottawa Short Line crossing. The bridge is composed of eight connected steel girder segments, each measuring approximately 65 feet in length and is designed with a slight curve from end to end.

The bridge is an early example of a through plate girder bridge, which is characterized by the exterior plate girders that frame the outside of the bridge, most commonly steel I-beams. The bridge is one of the oldest rail bridges in Ottawa and is one of ten local examples of a through plate girder bridges, with construction dates ranging from 1898 to 2016. Plate girder bridges originated in the mid-19th century and were regularly constructed as part of North American road and rail projects into the 1960s. The CPR bridge is a functional structure that does not display a high degree of craftsmanship. Although an early example of this type of bridge, the CPR bridge does not have a high degree of technical or scientific merit.

The steel for the bridge was produced by Carnegie Steel in Pittsburgh, Pennsylvania. The Dominion Bridge Company, a significant builder of steel bridges and steel frame buildings in 20th century Canada, was also involved in the assembly and construction of the bridge, although the extent of their involvement is uncertain. Notable local examples of Dominion Bridge Company's work include the Minto Bridges, Alexandra Bridge and Chief William Commanda Bridge. Given the more prominent designs of other Dominion Bridge Company projects, the subject bridge is not considered to be a notable demonstration of their work.

Historical

The bridge is associated with the development of passenger and industrial rail in late 19th and early 20th century Ottawa. The bridge was constructed to facilitate the Montreal and Ottawa Short Line, an intercity passenger line offering direct service between Montreal and Ottawa. Institutionally, the bridge's most significant association is with CPR, its primary user and later owner.

The bridge is one of the last remnants of historical rail infrastructure leading to the core of the City and is a reminder of a wider historic landscape of rail and industrial infrastructure centered around the Rideau Canal corridor. The bridge contributes to an understanding of the transition of Ottawa's waterfronts from industrial to recreational spaces in the mid-twentieth century. Following the 1950 Gréber Plan, industrial and passenger rail was gradually relocated out of the core, culminating with the 1966 closure of Ottawa Union Station.

Context

The CPR bridge is the last remaining bridge in what was once a cluster of four road and rail bridges at this location. It is historically and functionally linked to its surroundings as a rail bridge forming part of a historical rail and industrial landscape in urban Ottawa. The bridge's immediate context has shifted dramatically since its construction in 1898, transitioning from a primarily industrial space at the edge of the City to a semi-naturalized recreational area adjacent to residential and institutional uses. Given this contextual shift, the limited visibility of the bridge from vantage points not on the Rideau River pathway system, and the nearby presence of bridges and buildings more widely identifiable to the general public, the bridge is not considered a landmark, nor does it support the character of the area.

Condition and Alterations

According to City records, the bridge has undergone three major rehabilitations, including the rehabilitation of the piers in 1939 and the encasement of the masonry piers and abutments in concrete in 1952. In 1999, the bridge deck was rehabilitated by the City of Ottawa to allow it to continue to function as a pedestrian and cycling bridge. This included the replacement of the wood decking, timber rail ties, and timber curb on the interior of the bridge.

As outlined in the Detailed Condition Assessment and Renewal Option Analysis Report (Parsons Inc., 2018), the CPR bridge is in overall poor condition with several

components showings signs of advanced deterioration. Some of the major structural deficiencies include:

- Medium to very severe corrosion of structural steel elements below deck including the girder bottom flanges, interior web of the girders, and rivet heads
- Medium corrosion of structural steel elements above deck
- Failure of steel coating system
- Severe to very severe delamination and disintegration of concrete encasement of the abutments and piers.

Staff are not recommending designation under Part IV of the *Ontario Heritage Act* of the former CPR bridge at this time. A property may be designated under Part IV of the OHA if it meets at least two of the nine criteria for designation under Ontario Regulation 09/06. The CPR Bridge meets three of the nine criteria, which indicates that the bridge has some cultural heritage value. It is an early, representative example of a through plate girder bridge and is one of the last remnants of historical rail infrastructure leading to the core of the City. The bridge is also associated with the transition of Ottawa's core and the Rideau Canal waterfront from an industrial to recreational space. The overall cultural heritage significance of the bridge has been negatively impacted by the current condition, alterations, and changes to the surroundings of the bridge. Its association with historical rail infrastructure in the core has been minimized due to the reconfiguration of its connections and the development of major transportation corridors surrounding the bridge, which have visually disconnected it from the core.

In addition, staff believe it would be a more comprehensive approach to fully understand the findings and evaluations of the Municipal Class EA and associated studies in advance of proceeding with designation. As a piece of City-owned infrastructure, there is important information associated with the bridge rehabilitation options that will be provided through this process, including cost, lifespan of proposed repairs, connectivity within the active transportation network, construction impacts, closures and accessibility. Staff recommend that Built Heritage Committee receive the Heritage Evaluation and Analysis Report attached as Document 5 for information so that it can be included in the Municipal Class EA process as outlined below.

Recommendation 2:

The Environmental Assessment (EA) process is a planning tool used to identify the possible adverse effects of proposed infrastructure projects on the environment. The term "environment" is applied in a broad sense and includes the natural, social, cultural, built and economic environments. The EA will present various options for the bridge renewal that will be evaluated based on criteria that include social/cultural, biophysical, technical, and cost factors.

The renewal study for the former CPR bridge will require a Municipal Class Environmental Assessment (EA) to be undertaken in accordance with the requirements of a Schedule B project. Heritage Staff will work with staff in Infrastructure & Water Services to ensure that the Municipal Class EA includes:

1. Identification and consideration of the Cultural Heritage Value of the CPR bridge, as identified in Document 5

Heritage Planning Staff have determined that the CPR bridge is of cultural heritage interest and ‘heritage value’ will be included as one of the criterion for evaluation. The research conducted by Heritage Planning Staff and included as Document 5 can be included as a resource in the appropriate supporting documents of the EA.

2. An evaluation of renewal options, including an analysis of a rehabilitation option that would include the retention of the bridge

The Municipal Class EA process requires that a range of options for a project be identified and evaluated to determine a recommended approach. As part of the EA process, the City will evaluate all possible options for the bridge renewal including, but not limited to, the rehabilitation of the bridge as well as alternative conservation options. Once all factors are considered, the recommended option may not be the rehabilitation of the bridge, but it is important that it be considered fully.
In addition, a Heritage Impact Assessment will be undertaken as part of the EA process that will:

- Consider the cultural heritage value of the bridge
- Assess the impact of the potential renewal options on the cultural heritage value of the bridge
- Propose mitigative measures

A conservation plan will also be required. If the recommended option is rehabilitation, the conservation plan would address the detailed conservation of the bridge. Should the evaluation process determine that the preferred option is to demolish the bridge, the conservation plan will address opportunities for documentation, commemoration, and salvage of the existing bridge.

Recommendation 3:

Staff will report back to Built Heritage Committee on the findings and recommendations of the Municipal Class EA process and provide a recommendation regarding designation under Part IV of the Ontario Heritage Act.

Conclusion

Staff undertook a detailed heritage evaluation of the former CPR Bridge (Document 5) and determined that the CPR bridge is of cultural heritage interest. The overall cultural heritage value of the bridge has been impacted by its condition, alterations, and the change in context. Staff are not recommending designation under Part IV of the *Ontario Heritage Act* at this time but recommend that the heritage evaluation conducted by staff be used to inform the Municipal Class EA process. This will help ensure that the heritage value of the bridge will be considered as part of the EA process among other important considerations such as transportation, economics, environment and community values.

The Municipal Class EA may provide additional historical information through the Heritage Impact Assessment. It will also examine a range of conservation options which may be used to conserve the cultural heritage value of the bridge. The Municipal Class EA will provide important details associated with the different conservation options, including the lifespan of the rehabilitation, cost, impact to the active transportation network during construction and accessibility. This information will provide staff, the public, and Councillors with a better understanding of the rehabilitation options and the impact of a heritage designation.

As required by the Class EA process, a public consultation process will be undertaken. The bridge serves many communities and is an important pedestrian and cycling link in the city. Infrastructure and Water Services intends to establish a group with representation from the various community associations and stakeholders including Heritage Planning, Transportation Planning, NCC, Transport Canada, Rideau Valley Conservation Authority, Parks Canada and Community Associations.

Given the heritage interest in this bridge from the Built Heritage Committee, local residents and the Ward Councillor, staff will bring forward a report at the end the of the EA process to provide the Committee with a summary of the findings and outcomes of the EA process.

Provincial Policy Statement

Staff have reviewed this proposal and have determined it is consistent with the Provincial Policy Statement, 2020.

FINANCIAL IMPLICATIONS

There are no direct financial implications; the works can be completed from within existing resources.

LEGAL IMPLICATIONS

There are no legal implications associated with the information and direction provided in the report.

COMMENTS BY THE WARD COUNCILLOR(S)

The Councillor is aware of the recommendations in this report.

ADVISORY COMMITTEE(S) COMMENTS

This section contains any comments or recommendations made by one or more Advisory Committees relating to this report.

CONSULTATION

The Municipal Class Environmental Assessment will include public consultation and will be undertaken in accordance with the EA Guidelines.

ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with this report.

ASSET MANAGEMENT IMPLICATIONS

There are no Asset Management Implication for the proposed recommendations. Report recommendations are in compliance with the Comprehensive Asset Management Policy (CAMP).

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report.

RURAL IMPLICATIONS

There are no rural implications associated with this report.

SUPPORTING DOCUMENTATION

Document 1 Location Map

Document 2 Photos

Document 3 Detailed Condition Assessment and Renewal Option Analysis Report, Parsons Inc., 2018

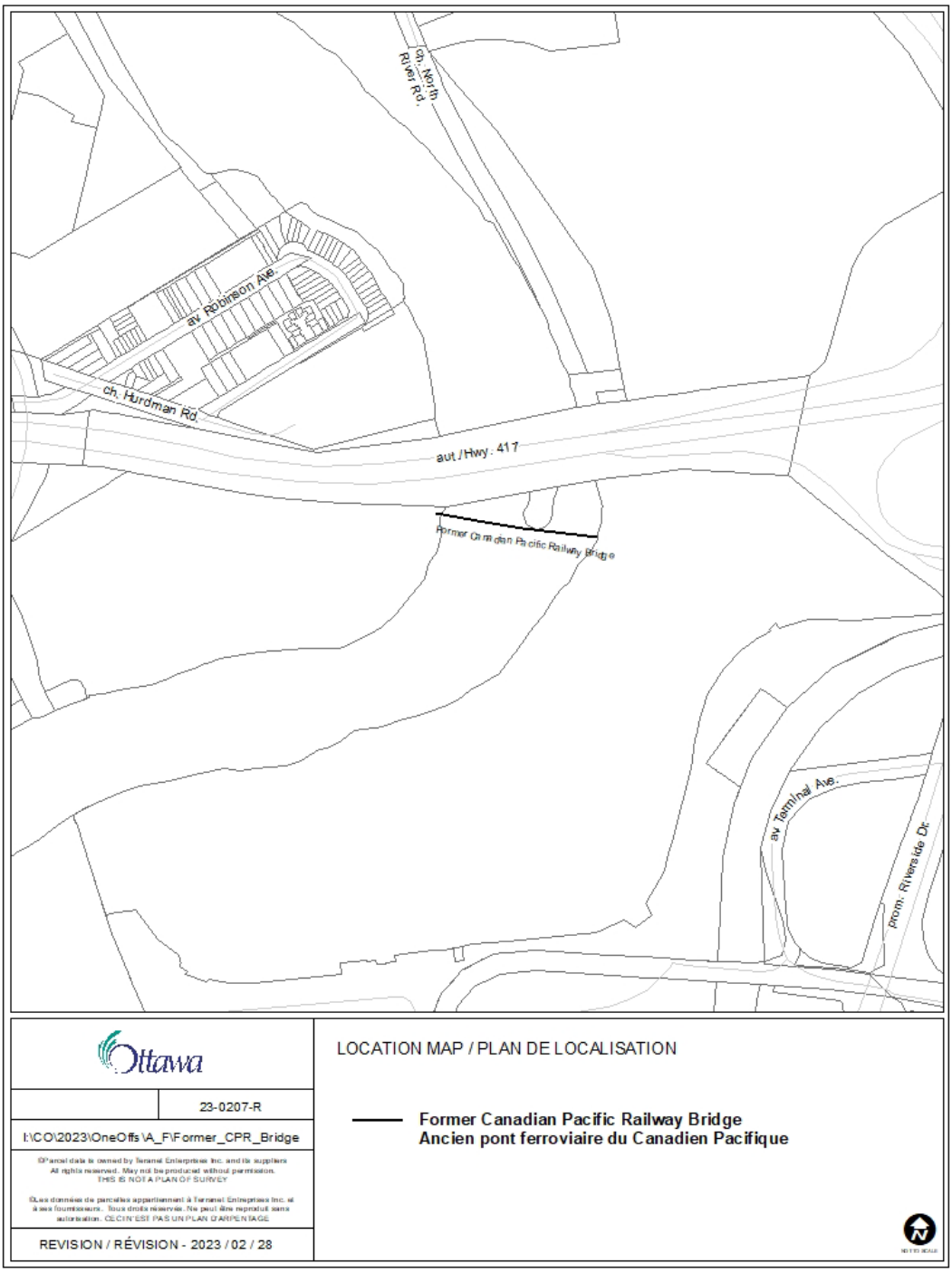
Document 4 Ontario Regulation 09/06

Document 5 Heritage Analysis and Evaluation Report

DISPOSITION

Staff in Heritage Planning will implement the recommendations.

Document 1 – Location Map



Document 2 – Photos

Photos of the bridge looking east

Structural steel elements below deck show medium to very severe corrosion

Abutments and piers exhibit severe to very severe delamination and disintegration of concrete encasement

Document 4 – Ontario Regulation 09/06

CRITERIA FOR DETERMINING CULTURAL HERITAGE VALUE OR INTEREST

Consolidation Period: From January 1, 2023 to the e-Laws currency date.

Last amendment: 569/22.

This is the English version of a bilingual regulation.

Criteria, s. 27 (3) (b) of the Act

1. (1) The criteria set out in subsection (2) are prescribed for the purposes of clause 27 (3) (b) of the Act. O. Reg. 569/22, s. 1.

(2) Property that has not been designated under Part IV of the Act may be included in the register referred to in subsection 27 (1) of the Act on and after the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force if the property meets one or more of the following criteria for determining whether it is of cultural heritage value or interest:

1. The property has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method.
2. The property has design value or physical value because it displays a high degree of craftsmanship or artistic merit.
3. The property has design value or physical value because it demonstrates a high degree of technical or scientific achievement.
4. The property has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community.
5. The property has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture.
6. The property has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.
7. The property has contextual value because it is important in defining, maintaining or supporting the character of an area.
8. The property has contextual value because it is physically, functionally, visually or historically linked to its surroundings.

9. The property has contextual value because it is a landmark. O. Reg. 569/22, s. 1.

(3) For clarity, subsection (2) does not apply in respect of a property that has not been designated under Part IV but was included in the register as of the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force. O. Reg. 569/22, s. 1.

Criteria, s. 29 (1) (a) of the Act

2. (1) The criteria set out in subsections (2) and (3) are prescribed for the purposes of clause 29 (1) (a) of the Act. O. Reg. 569/22, s. 1.

(2) Section 1, as it read immediately before the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force, continues to apply in respect of a property for which a notice of intention to designate it was given under subsection 29 (1.1) of the Act after January 24, 2006 and before the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force. O. Reg. 569/22, s. 1.

(3) In respect of a property for which a notice of intention to designate it is given under subsection 29 (1.1) of the Act on or after the day subsection 3 (2) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force, the property may be designated under section 29 of the Act if it meets two or more of the criteria for determining whether it is of cultural heritage value or interest set out in paragraphs 1 to 9 of subsection 1 (2). O. Reg. 569/22, s. 1.

Criteria, s. 41 (1) (b) of the Act

3. (1) The criteria set out in subsection (2) are prescribed for the purposes of clause 41 (1) (b) of the Act. O. Reg. 569/22, s. 1.

(2) Subject to subsection (3), in the case of a by-law passed under subsection 41 (1) of the Act on or after the day subsection 5 (1) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force, a municipality or any defined area or areas of it may be designated by such a by-law as a heritage conservation district under subsection 41 (1) of the Act if the municipality or the defined area or areas of it meets the following criteria:

1. At least 25 per cent of the properties within the municipality or defined area or areas satisfy two or more of the following:

i. The properties have design value or physical value because they are rare, unique, representative or early examples of a style, type, expression, material or construction method.

ii. The properties have design value or physical value because they display a high degree of craftsmanship or artistic merit.

iii. The properties have design value or physical value because they demonstrate a high degree of technical or scientific achievement.

iv. The properties have historical value or associative value because they have a direct association with a theme, event, belief, person, activity, organization or institution that is significant to a community.

v. The properties have historical value or associative value because they yield, or have the potential to yield, information that contributes to an understanding of a community or culture.

vi. The properties have historical value or associative value because they demonstrate or reflect the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

vii. The properties have contextual value because they define, maintain or support the character of the district.

viii. The properties have contextual value because they are physically, functionally, visually or historically linked to each other.

ix. The properties have contextual value because they are defined by, planned around or are themselves a landmark. O. Reg. 569/22, s. 1.

(3) Subsection (2) does not apply in respect of a by-law passed under subsection 41 (1) of the Act on or after the day subsection 5 (1) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force if a notice of a public meeting required to be held for the purposes of the by-law under subsection 41.1 (7) of the Act was given before the day subsection 5 (1) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force. O. Reg. 569/22, s. 1.

(4) For clarity, the requirement set out in subsection 41.1 (5.1) of the Act,

(a) does not apply in respect of a by-law under subsection 41 (1) of the Act that is passed before the day subsection 5 (1) of Schedule 6 to the *More Homes Built Faster Act, 2022* comes into force; and

(b) does not apply in respect of a by-law under subsection 41.1 (2) of the Act. O. Reg. 569/22, s. 1.