

# **Public Works & Engineering**

Environment & Development Engineering

10 February, 2021

Ray Ferri Al Ferri & Sons 8605 Heritage Rd. Brampton, ON L6Y 0E4

#### Re: Application for Stormwater Charge Exemption for 8548 Heritage Rd

Dear Ray Ferri:

The City has reviewed your application for a technical exemption from stormwater charges on your property at 8548 Heritage Rd. The following summarize the basis of your application and are followed by my responses in *italics*:

#### 1. a) Gravel Surfaces on Neighbouring Properties

Summary of Comment: Gravel surfaces are inconsistently identified as impervious surfaces on neighbouring properties.

Response: Thank you for bringing this to our attention. Some of your neighbouring properties are classified as single family residential. In accordance with the Stormwater Charge By-law 82-2020, the stormwater charge for single family residential properties is based on the roofprint (i.e. the area of buildings) to define a tier for each property (see Schedule A of the By-law). This is why the mapping shown in the online Stormwater Charge Estimator only shows the roofprints within single family residential properties and does not show other impervious surfaces, such as gravel driveways. However, the other impervious surfaces are not ignored. The tiered billing structure for single family residential properties outlined in Schedule A of the By-law was developed to account for the other impervious areas. This is because the area of other impervious surfaces on residential properties varies much less than for non-residential properties. Upon reviewing your neighbouring properties to address this comment, we identified and corrected the records for one property so that it is classified as single family residential.

Other nearby properties are non-residential, including agricultural properties. In accordance with the Stormwater Charge By-law 82-2020, the stormwater charge for non-residential properties is based on all impervious surfaces measured on each individual property. Impervious surfaces include paved or hard surfaces, building rooftops, compacted gravel, artificial turf, and other surfaces on a property which are considered highly resistant to the infiltration of water, increasing stormwater runoff. These impervious areas were identified based on analysis of



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aerial imagery collected in 2018 and are currently being updated with 2020 aerial imagery. Upon reviewing your neighbouring properties to address this comment, we identified and corrected errors in impervious mapping for two properties so that driveways were identified in addition to buildings. Please let us know if you have additional questions about specific properties.

#### 1. b) Imperviousness of Access Road

Summary of Comment: Gravel surfaces on your property should not be identified as impervious. The access road from your driveway to the Bell Cell Tower is dirt (not gravel), overgrown with vegetation, not used, and not compacted.

Response: Impervious surfaces include compacted gravel and other surfaces which are considered highly resistant to the infiltration of water, increasing stormwater runoff. Infrastructure access roads such as the one on your property are typically compacted during construction to ensure the road is safe to use if/when necessary. Your letter does not demonstrate that the access road is not impervious. As such, the access road is and will continue to be considered an impervious surface unless you provide supporting documentation from a qualified professional.

#### 1. c) Runoff from Driveway and Access Road

Summary of Comment: Runoff from your driveway and the Bell Cell Tower access road does not leave the property because it infiltrates into the ground, as shown by topographic mapping.

Response: The City's topographic mapping indicates that your driveway and the access road generally drain southwards and then drain west of the access road, across lawn and naturalized vegetated areas towards the watercourse adjacent to your property (Levi Creek). Your request for a technical exemption was not accompanied by the opinion of a qualified professional to demonstrate that the driveway and access road do not drain to the City's stormwater drainage system. The qualified professional would need to demonstrate that all stormwater from the driveway and access road is fully retained on your property until such time as it evaporates or infiltrates into the ground. This includes extreme events, up to and including the 100-year rainfall event. Please submit the opinion of a qualified professional to support your application for a technical exemption.



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If stormwater from this portion of your property is retained and/or filtered during small and frequent rainfall events, but not extreme events, please consider submitting an application for a credit rather than a technical exemption. The City of Brampton has a Stormwater Charge Credit Program through which eligible property owners can seek a reduction in their stormwater charge based on stormwater management measures on their property, such as vegetated filter strips and swales. For additional information on the credit program and application process, please refer the Stormwater Charge Credit Program manual<sup>1</sup>.

You may be eligible for funding to offset the up-front design and installation cost of some stormwater management measures. You can contact Mark Eastman at Credit Valley Conservation at mark.eastman@cvc.ca or (416) 294-7335 to discuss possible financial support options, such as the Peel Rural Water Quality Program<sup>2</sup>.

#### 2. Runoff from Bell Cell Tower

Summary of Comment: Runoff from concrete pad at the base of the Bell Cell Tower does not leave the property because it infiltrates into the ground.

Response: Please see my response to comment 1 (c) as it also applies to this comment. Please provide the opinion of a qualified professional to support this aspect of your application for a technical exemption. Alternatively, you may seek a reduction to the stormwater charge through the Stormwater Charge Credit Program.

#### 3. Runoff from Residential Structure

Summary of Comment: Runoff the roof of the house does not leave the property because it infiltrates into the ground, and it is the City's responsibility to prove otherwise.

Response: Please see my response to comment 1 (c) as it also applies to this comment. Please provide the opinion of a qualified professional to support this aspect of your application for a technical exemption. The City calculated the stormwater charge for your property in accordance with the Stormwater Charge By-law 82-2020. It is your responsibility as the property owner to demonstrate, with the support of the opinion of a qualified professional, that this or other portions of your property do not drain to the City's stormwater drainage system up to and including the 100-year rainfall event in order to qualify for a technical exemption.

<sup>2</sup> <u>https://cvc.ca/your-land-water/countryside-stewardship/agriculture-equine-stewardship/funding-and-technical-</u> assistance/peel-rural-water-quality-program/

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<sup>&</sup>lt;sup>1</sup> https://www.brampton.ca/EN/residents/Stormwater/Documents/Stormwater-Credit-Program-Guidance.pdf



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Alternatively, you may seek a reduction to the stormwater charge through the Stormwater Charge Credit Program. This is an appropriate approach to reduce your stormwater charge where vegetated areas, also referred to as vegetated filter strips, or other stormwater management measures infiltrate or evaporate small rainfall events but not extreme rainfall events. Please refer to the Stormwater Charge Credit Program manual<sup>3</sup> for more information on the application process and required documentation.

#### 4. Runoff from Heritage Road

Summary of Comment: Runoff from Heritage Road flows onto 8548 Heritage Road along the northeastern property line. The road runoff overwhelms the ability of 8548 Heritage Road to absorb all runoff from on-site impervious surfaces and causes runoff to flow into stormwater facilities.

Response: The City's topographic mapping indicates that road runoff drains onto 8548 Heritage Road. However, you are not being charged for runoff from the City's Road right-of-way. The stormwater charge is calculated based on the impervious area on your property, not adjacent areas that drain onto your property. If you choose to engage a qualified professional to support your technical exemption application per my previous responses, they will be able to factor this into their assessment so that they only assess the ability of your own property in retaining direct rainfall onto the property.

#### 5. Opinion of a Qualified Professional

Comment: "In closing I point out that I am not an engineer but these are very valid points and I expect the same response you would give if presented by an engineer."

Response: You raise valid points that may apply under certain circumstances, however the City requires the opinion of a qualified professional to demonstrate your points apply to the extent needed for a technical exemption, as I explained here further. While some runoff from impervious surfaces may be retained by adjacent vegetated areas, the literature on this approach to stormwater management shows a wide range in its effectiveness. The effectiveness varies based on slope, underlying soils, vegetative cover, relative size of impervious and vegetated areas, the flow length across a vegetated area, the amount of rainfall, and multiple other considerations. As I mentioned in other responses, while vegetated areas may in some cases retain stormwater from small and frequent

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events, this may not be the case during extreme events when a heavy rainfall would saturate vegetated areas to the extent that they cannot retain runoff from other areas. The City's stormwater drainage system manages both small and extreme events. A qualified professional would consider these variables in determining and demonstrating whether your property, or a portion of it, does not drain to the City's stormwater drainage system in order to support your application for a technical exemption.

#### 6. Lack of Studies Specific to Subject Property

Summary of Comment: "Since you performed no studies specific to my property you do not have documentation to disprove any of my points."

Response: The Stormwater Charge By-law 82-2020, including the method for calculating the charge for each property (Schedule A), was based on the Stormwater Management Financing Study published in February 2020<sup>4</sup>. This study considered the alternative methods used by municipalities to calculate stormwater charges and recommended the approach now used by the City per By-law 82-2020. No municipality in Ontario conducts municipal-led studies of each individual property to determine their stormwater charge because this would greatly increase the administrative cost of a program, which in the end would be borne by property owners through elevated stormwater charges. Instead, each approach used by municipalities balances the need to recognize that properties contribute different amounts of runoff to the municipal stormwater drainage system with the need for a cost-effective assessment process. In addition to technical exemptions, some municipalities also establish credit programs so that eligible property owners can seek a reduction in their stormwater charge based on stormwater management measures on their property. Based on the recommendations of the Financing Study, the City of Brampton's Stormwater Charge By-law 82-2020 enables property owners to apply for technical exemptions where properties do not drain to the City's stormwater drainage system and credits where stormwater management measures control stormwater from a property. It is the property owner's responsibility to demonstrate the merit in their application for a technical exemption based on the opinion of a qualified professional and/or support a credit application with the supporting documentation outlined in Appendix 1 of the Stormwater Charge Credit Program manual<sup>5</sup>.

<sup>&</sup>lt;sup>4</sup> <u>https://www.brampton.ca/EN/residents/Stormwater/Documents/Stormwater-Infrastructure-Financing-Study.pdf</u>

<sup>&</sup>lt;sup>5</sup> <u>https://www.brampton.ca/EN/residents/Stormwater/Documents/Stormwater-Credit-Program-Guidance.pdf</u>



#### 7. Large Agricultural Property

Comment: "Given that this is an agricultural property of approximately 7 acres it is not unreasonable to assume that the runoff from the impervious surfaces does not leave the property."

Response: In accordance with the Stormwater Charge By-law 82-2020, single family residential is the only land use distinguished when determining the stormwater charge applicable to a property, otherwise land use is not used to determine the stormwater charge. The stormwater charge is based on the area of impervious surfaces on each property.

The Stormwater Charge By-law 82-2020 enables property owners to apply for technical exemptions where properties do not drain to the City's stormwater drainage system and credits where stormwater management measures control stormwater from a property. Please refer to my other responses which address each aspect of your application for a technical exemption. Please also refer to my response to Comment #5 which speaks to the considerations needed to assess the effectiveness of vegetated areas in retaining runoff from impervious areas.

Please contact the undersigned if you have any questions.

Regards,

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