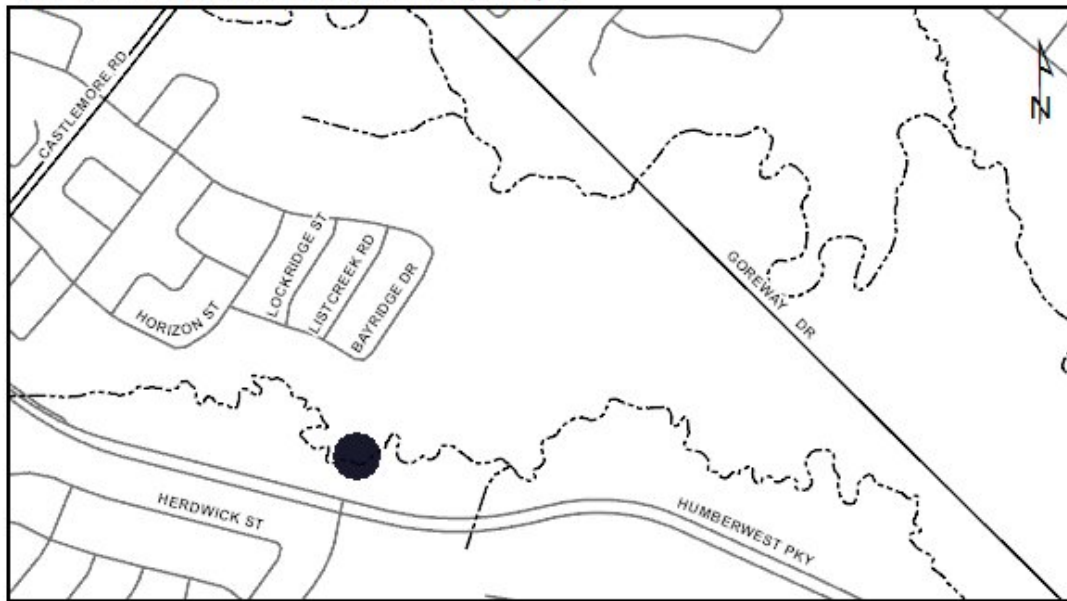


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To construct, reconstruct, erect or place a building or structure, site grade, temporarily or permanently place, dump or remove any material, originating on the site or elsewhere and alter a watercourse as part of the Cottrelle Boulevard extension, in the City of Brampton, Humber River Watershed, as located on property owned by the City of Brampton and being acquired by the City of Brampton. The purpose is to construct Cottrelle Boulevard between Humberwest Parkway and Goreway Drive. This work has been divided into 4 separate permit applications (CFN 43232, 43233, 43234, 43235). This application (CFN 43234) covers the final construction of Cottrelle Boulevard within the regulated area at Tributary A, located east of Humberwest Parkway. The Redside Dace construction timing window will be applied to this work, unless otherwise specified in writing by the Ministry of the Environment, Conservation and Parks.

MAP LOCATION: Cottrelle Boulevard Extension (Tributary A)



The permit will be issued for the period of January 10, 2020 to January 9, 2025 in accordance with the following documents and plans which form part of this permit:

- **Sheet P2-ST1 - Cottrelle Boulevard, Overview, Staging; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**
- **Sheet P2-ST2 - Cottrelle Boulevard, Humberwest Parkway, Staging; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**
- **Sheet P2-ST3 - Cottrelle Boulevard, Tributary 'A' Access Ramp, Staging; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**
- **Sheet P2-R1 - Cottrelle Boulevard, STA. 5+850 to STA. 6+340, Removals; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**
- **Sheet P2-R3 - Cottrelle Boulevard, Humberwest Parkway Intersection, Removals; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**
- **Sheet P2-NC1 - Cottrelle Boulevard, STA. 5+850 to STA. 6+080, 140m West of Humberwest Parkway to 100m East, Phase 2 Road and Bridge Construction; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;**

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- Sheet P2-NC2 - Cottrelle Boulevard, STA. 6+080 to STA. 6+340, 100m East to 360m East Humberwest Parkway, Phase 2 Road and Bridge Construction; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-T1 - Cottrelle Boulevard, Typical Sections, Typical Details Phase 2; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-T4 - Cottrelle Boulevard, Outlet Details, Typical Details Phase 2; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-ESC1 - Cottrelle Boulevard, STA. 5+950 to 6+250, Erosion and Sediment Control Phase 2: Road and Bridge; prepared by SNC Lavalin; dated September 2019; received September 12, 2019;
- Sheet P2-ESC5 - Cottrelle Boulevard, Erosion and Sediment Control Phase 2: Misc. Details; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-EM1 - Cottrelle Boulevard, STA. 5+850 to STA. 6+340, Project Site Restoration Edge Management Plan; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-EM3 - Cottrelle Boulevard, Humberwest Parkway Intersection, Project Site Restoration Edge Management Plan; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-S101 - Cottrelle Boulevard, STA. 6+068 West Humber River Tributary A, General Arrangement; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-S108 - Cottrelle Boulevard, STA. 6+068 West Humber River Tributary A, Retained Soil System I; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet P2-S109 - Cottrelle Boulevard, STA. 6+068 West Humber River Tributary A, Retained Soil System II; prepared by SNC Lavalin; dated March 2019; received April 22, 2019;
- Sheet L1 - Cottrelle Boulevard, Humberwest Parkway to Goreway Drive, Landscape Key Plan; prepared by Strybos Barron King Landscape Architecture; dated September 27, 2019; received April 22, 2019;
- Sheet L2 - Cottrelle Boulevard, Humberwest Parkway to Goreway Drive, Landscape Plan; prepared by Strybos Barron King Landscape Architecture; dated September 27, 2019; received April 22, 2019;
- Sheet L4 - Cottrelle Boulevard, Humberwest Parkway to Goreway Drive, Details; prepared by Strybos Barron King Landscape Architecture; dated September 27, 2019; received April 22, 2019.

RATIONALE

The application was reviewed by staff on the basis of the following information:

Proposal:

Cottrelle Boulevard currently terminates at Humberwest Parkway from the west and at Goreway Drive from the east. The purpose of this project is to construct a new segment of Cottrelle Boulevard between Humberwest Parkway and Goreway Drive (approximately 700 m).

Work will be conducted in 2 Phases. This application covers Phase 2 which involves the final construction of Cottrelle Boulevard, within the regulated area located at Tributary A, east of Humberwest Parkway. Following the 2 years of pre-loading and settlement (covered under CFNs 43232 and 43233), final construction of Cottrelle Boulevard will be completed as a 4-lane

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urban cross section with a 30 m right-of-way including dedicated turning lanes, a sidewalk, a multi-use path and stormwater outfalls. Cottrelle Boulevard will be constructed with a 31.5 m wide open span bridge at Tributary A. The road will be approximately 4 m in height once re-graded at this location and Retained Soil System (RSS) walls will be constructed as part of the final road design to support embankment fill.

Stormsewer outlets will be connected to Oil Grit Separator (OGS) units which will then discharge to swales within the valley. An infiltration gallery will also be used to treat low flows prior to discharge.

The City of Brampton will continue to use an existing temporary access road constructed through TRCA land off Goreway Drive, located south of the proposed Cottrelle Boulevard extension to access the central portion of their work area. This access road was originally constructed by the Region of Peel to facilitate their watermain construction within the same valley several years ago. In anticipation of the future Cottrelle Boulevard construction, the temporary access road was left in place and will be removed once this phase of construction has been completed.

As noted in the permit reports for the Phase 1 work (CFNs 43232 and 43233) pre-loading activities will take approximately 2 years to complete. Since final road construction will commence after the 2 years of pre-loading, and is expected to take approximately 2 to 3 years to complete, this permit will be issued as a 5 year permit.

Control of Flooding:

It is expected that there will be a maximum increase of 0.91 m of water at Tributary A, however, the impacts will be confined to the valley system which is owned by the City of Brampton. No impacts to private properties from the proposed increase are expected. Under ultimate road conditions, Cottrelle Boulevard will be able to convey the Regional flows without overtopping.

Pollution:

Standard erosion and sediment control measures, including filter bags, check dams, coffer dams, double row silt fencing, temporary sediment traps and erosion control blankets will be implemented prior to construction and maintained for the duration of construction through Stage 1.

Dynamic Beaches:

Not applicable.

Erosion:

No geotechnical/slope stability issues are anticipated for the proposal.

Conservation of Land:

Construction of this road will result in the loss of approximately 700 trees, a wetland (near the West Humber River) and overall loss of restorable habitat. In addition, 5 vernal pools were identified within the study area. Construction will result in the direct loss of 2 vernal pools located within the immediate footprint of the new road. A third vernal pool will also be impacted due to its proximity to the footprint of the new road. Of the remaining two pools, one is not expected to be impacted by construction as it is 45 m from the road footprint. The fifth vernal pool is located within the TRCA regulated area and is approximately 5 m from expected grading. Given its proximity to the new road and proposed grades, a low berm will be constructed along the south side of the road ditch to prevent the vernal pool from draining into the ditch, to isolate the pool and ensure the observed overflow elevations of the pool are maintained. Surface water,

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vegetation and wildlife monitoring will take place over a 3-year post-construction period to ensure that there are no significant changes to the function of the pool. Adaptive management measures will take place should results show significant changes to the function of the pool. Results of the monitoring program, as well as recommendations for any future required actions, if any, will be discussed through TRCA.

The existing temporary access road through TRCA lands off Goreway Drive will be removed and restored with a native non-invasive seed mix, once construction has been completed. Approximately 20 m of granular access road will remain in place at the entrance to the property off Goreway Drive for future TRCA vehicle access.

The Redside Dace construction timing window (July 1 to September 15) will be applied to this work, unless otherwise specified in writing by the Ministry of the Environment, Conservation and Parks.

Plantings

The City of Brampton will complete restoration and stabilization of the site once construction has been completed. The site will be stabilized with native non-invasive ground layer seed mixes. An edge management plan has been created for the entire study area that will result in approximately 3,670 tree and 3,595 shrub plantings. In addition, landscape plantings will result in over 200 additional tree and over 1,000 shrub plantings along the new road and outfalls.

Furthermore, as a requirement under the Endangered Species Act, the Ministry of Natural Resources and Forestry (at the time of project review) required that an Overall Benefit plan be developed due to the presence of Redside Dace and bat habitat. It was decided through discussions with the City of Brampton and the Ministry of Natural Resources and Forestry that in order to address both TRCA compensation requirements for loss of restorable habitat, and the Overall Benefit requirements by the province, that off-site compensation would take place on two City owned sites within Chrysanthemum Valley by TRCA's Restoration Projects Group.

Site 1 located east of McVean Drive and south of Castlemore Road will be planted to provide 1.85 ha of upland forest to satisfy the Overall Benefit requirement by the province for bat habitat compensation. Bat rocket boxes will also be placed within the Gore Meadows site as per the Overall Benefit requirements through the province on the north side of Castlemore Road and in Chrysanthemum Valley, south of Castlemore Road. Site 2 located north of Riverstone Golf Course will provide 0.16 ha of upland forest and 0.65 ha of wetland forest habitat to satisfy the additional TRCA compensation requirements. Plans for all of these sites have been coordinated to integrate the two processes to maximize the overall net ecological gain for the area.

Policy Guidelines:

This proposal complies with Section 8.9 Infrastructure Policies of The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority.

CFN: 43234 - Application #: 0926/09/BRAM

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Date: December 19, 2019