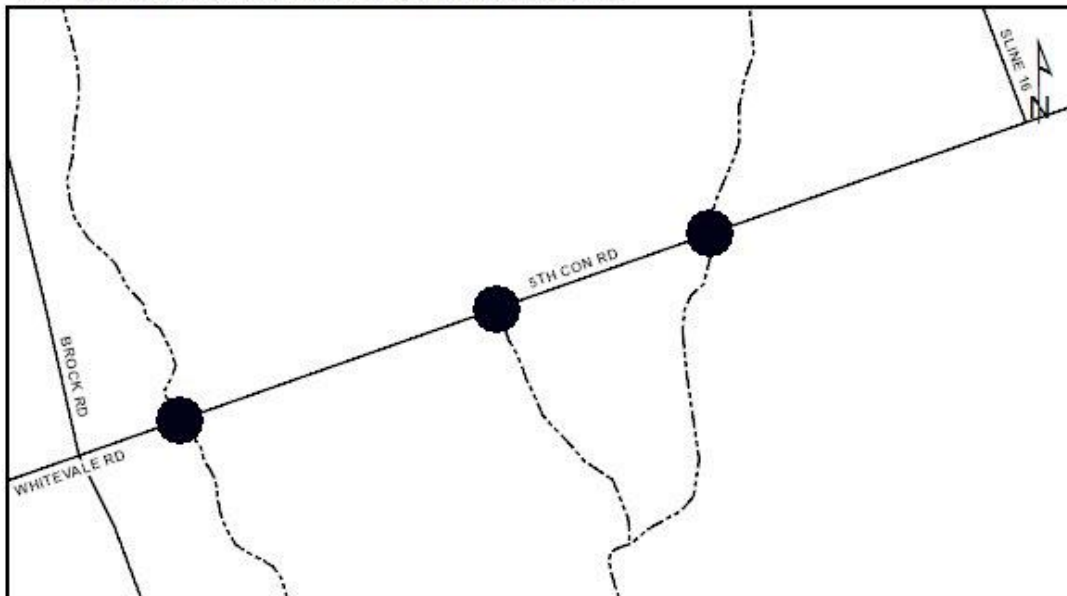


CITY OF PICKERING

10.3 SEATON TFPM INC.

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, interfere with a wetland and alter a watercourse on 5th Concession Road between Brock Road and Sideline 16, in the City of Pickering, Duffins Creek Watershed, as located on the property owned by the City of Pickering, Regional Municipality of Durham, Infrastructure Ontario and Seaton TFPM Inc. The purpose is to undertake culvert improvements and grading along 5th Concession Road between Brock Road and Sideline 16. These works are part of the servicing for the new Seaton community in the City of Pickering and were previously reviewed through the Central Pickering Development Plan Class Environmental Assessment (EA) for Regional Services (June 2014).

MAP LOCATION: 5th Concession Road (Brock Road to Sideline 16)



The permit will be issued for the period of June 11, 2021 to June 10, 2023 in accordance with the following documents and plans which form part of this permit:

The documents and plans which form part of this permit will be listed in a separate report

RATIONALE

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

Proposal:

Currently 5th Concession Road operates with a single lane of traffic in each direction between Brock Road and Sideline 16. Although the widening of 5th Concession Road to an ultimate 4-lane urban section is required in the future to service the Seaton development community, this proposal focuses on three (3) culvert replacements and associated grading due to the need to advance work at the watercourse crossings to meet provincial timing window requirements. Details regarding the 5th Concession Road widening and servicing will be reviewed under a separate permit application.

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Fifth Concession Road bisects three (3) headwater tributaries of Urfe Creek. The existing 61 m long by 1,000 mm wide CSP culvert located at the western crossing is perched and is currently acting as a barrier to fish species. This culvert will be replaced with a 67 m long by 1,800 mm high by 2,400 mm wide box culvert. Wildlife passage was considered at this crossing location, but was not pursued given that the natural heritage system corridor generally terminates at Brock Road with limited terrestrial habitat upstream of the crossing. The focus at this crossing is the replacement of the perched culvert with a larger and properly embedded culvert.

The central crossing functions to primarily convey surface and drainage flows to the downstream system and as such the existing 54.9 m long by 600 mm wide central culvert will be removed and replaced with a culvert of the same size. The downstream headwall will also be modified to include armour stone wingwalls.

The eastern crossing is associated with a wetland complex and flows are currently conveyed under the road through an existing 35 m long by 1,000 mm wide CSP. This crossing will be replaced with a 52.4 m long by 5,400 mm wide by 2,400 mm high concrete box culvert. Efforts were made at this crossing to widen the structure to the extent possible to accommodate wildlife passage and maintain habitat continuity. It is expected that this culvert will provide suitable passage of small mammals as well as amphibian and reptile species. Channel realignments both upstream and downstream of the culvert will be required to ensure appropriate tie-in with the existing system.

Cofferdams and a pump around system will be used to isolate work areas at the crossings while culvert replacements take place. Grading will also be required at the crossing locations to widen these areas for the culvert work and eventual road widening. At the crossing locations, grading was reduced in some areas to 2:1 slopes to minimize encroachment into sensitive natural features such as wetland and woodland communities.

These works are part of the servicing for the new Seaton community in the City of Pickering and were previously reviewed through the Central Pickering Development Plan Class Environmental Assessment (EA) for Regional Services (June 2014).

Control of Flooding:

The proposed project is not anticipated to impact flooding, conveyance or storage of floodwaters.

Pollution:

Standard erosion and sediment control measures, including filter socks, double row silt fencing, check dams and mud mats will be implemented prior to construction and maintained for the duration of construction, and until the site is stabilized and restored. Stabilized cut-off swales will be constructed to accommodate drainage in the area and three (3) sediment traps will also be constructed to filter drainage prior to release to adjacent watercourses. Erosion and sediment control measures have been provided in accordance with the Toronto and Region Conservation Authority Erosion and Sediment Control Guide for Urban Construction (2019).

Dynamic Beaches:

Not applicable

Erosion:

No geotechnical/slope stability issues have been identified.

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Conservation of Land:

To protect local fish populations during their spawning, nursery and migratory periods, the contractor/proponent should ensure that in- water/near-water activities occur within the applicable timing window. The proponent/contractor should confirm timing window application and dates directly with appropriate Provincial and Federal agencies.

Plantings

Given future development within this area, it was agreed that a holistic approach for the general area would be used to ensure enhancement strategies are incorporated at a larger scale with improved continuity between features. As 1,147 square metres of wetland habitat associated with the eastern crossing will be removed, wetland losses will be compensated through efforts immediately east of the crossing and south of 5th Concession Road associated with the open space between the natural area and the future stormwater management facility (SWMF) 30 pond outlet channel. This new wetland which includes construction of a bioswale/wetland between the existing marsh community and SWMF 30 will be created to provide greater wetland area and function. Stormwater will be used to feed the new wetland complex. Water will be conveyed through the new wetland by means of a meandering thalweg with adjacent wetland pockets to provide habitat to terrestrial species and flood mitigation under high water conditions. The wetland will also provide an enhanced treatment train that complements the site-level stormwater management plan. In total 3,056 square metres of wetland will be created within the proposed design which will fully compensate for both the impacts associated with the culvert/grading work, as well as anticipated future development, with a surplus of 943 square metres of wetland habitat.

In addition, a total of 3,023 square meters of forest habitat located adjacent to the road will be lost. Compensation plantings are being coordinated with other losses as a result of the future adjacent development. Forest compensation plantings will take place immediately south and west of the future Phase 1A parcel associated with the Thompson's Corners work (under separate review) with the intention to restore the existing natural heritage system through plantings within an active agricultural field which has high habitat improvement potential. Restoration will also take place along graded slopes including seeding with native grasses and wildflower mixtures and shrub plantings. Other areas will also be restored with native, non-invasive riparian and wetland seed mix. Edge management plantings will take place along the toe of slope at the new forest edge where culvert and grading work associated with the road is expected.

Monitoring of the wetland vegetation, amphibians (breeding habitat) and water levels within the wetland will be undertaken pre-development, during and post-construction and adaptive management measures implemented if field observations and data indicate that water levels are insufficient to sustain the wetland habitat. Plantings associated with woodlands will also be monitored post-construction.

Policy Guidelines:

This proposal complies with Section 8.7 Development and Interference with Wetlands, Section 8.8 Interference with a Watercourse, and Section 8.9 Infrastructure Policies of The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority.

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