### ITEM 9.1 AN OVERVIEW OF STORMWATER MANAGEMENT PONDS AND UNDERGROUND TANKS (10.0)

Development Services Committee Date: June 13, 2022

> Don Given, MCIP, RPP On behalf of FUA Landowner Groups



### Supportive of UG SWM/Dual-Use Facilities

- Request that DSC approve Staff's Recommendation to permit underground (UG) stormwater management (SWM) facilities, and parkland uses on top subject to negotiations
- Request that DSC adopt Item 12.1 Motion that:
  - The City accept municipal UG SWM facilities as an alternative to open SWM ponds
  - Staff be directed to include UG SWM facilities within Standards of the City of Markham
  - Staff be directed to negotiate parkland credit for the land above underground stormwater management facilities on a case-by-case basis
    - 100 % parkland credit for land above UG SWM facilities should be provided
      - Generates more parkland for community where park would otherwise not have been possible
      - Allows the City to achieve the parkland provision target of 1.2 ha per 1,000 residents
      - Offers opportunities for active and passive open space uses, as both soft or hardscape landscaping



### Benefits of UG SWM/Dual-Use Facilities

- Promotes a more efficient use of land through multiple uses with underground facilities and at-grade park uses to benefit the community
- Consistent with Provincial, Regional, and Markham planning policies, to optimize land supply, build compact greenfield communities, promote efficient development and land use patterns, and efficiently use land and resources
- Beautifies the community
- Eliminates nuisances of an open SWM pond e.g. York Region Public Health concerns related to mosquitos/vector borne diseases; other nuisance wildlife; garbage accumulation, etc.
- Supported and encouraged by TRCA and LSRCA
- Supported and encouraged in other York Region municipalities such as Newmarket and Vaughan



#### **Robinson Glen Demonstration Plan**



# Bill Crothers Secondary School

- A 1,300m3 stormwater storage tank located below the artificial turf practice area and Olympic caliber running track. The tank is located below the elevation of the groundwater table and includes an innovative weeper and pump system that supplies the tank using groundwater, in the event that the water level in the tank is depleted below a specified level. Stormwater that is collected within the storage tank is used to irrigate the natural turf sports fields, as well as to cool down the artificial turf field prior to each cycle of play during the summer months.
- Photo Source: Schollen & Company Inc.

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## Honda Canada Campus

The Honda Canada Campus was designed to reflect Honda's corporate vision for environmental efficiency and sustainability. Stormwater runoff is managed through and integrated system of LID technologies that include permeable pavement, biofilters, rain gardens and a rainwater storage and recycling system. The storage system comprises an 1,800m3 storage tank that is overlain by a baseball field and trails. The tank stores water that is used for landscape irrigation throughout the campus.

• Photo Source: Schollen & Company Inc.

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## Berczy Square

- Example of a recent open SWM pond that could have been built as a dual purpose by incorporating an UG SWM facility with at-grade active/passive park or programmed space
- Photo Source: Google Maps









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