

RIVERWALK UPDATE: Downtown Brampton Flood Protection & Urban Design Master Plan

Environment and Development Engineering
Public Works & Engineering Department, City of Brampton



The Riverwalk Program: **Refresher**

- Key infrastructure and transformative initiative for Downtown Brampton
- Integrates flood protection, urban revitalization, nature and open space, place making, public amenities
- Integrates with other strategic initiatives
- Catalyst for Downtown revitalization, development
- Two primary components: **Flood Protection** and **Public Realm**
- Return on Investment (ROI) Study (2019) identified significant economic benefits of the Riverwalk unlocking development in Downtown Brampton



Riverwalk Program: Downtown Brampton Flood Protection (DBFP)

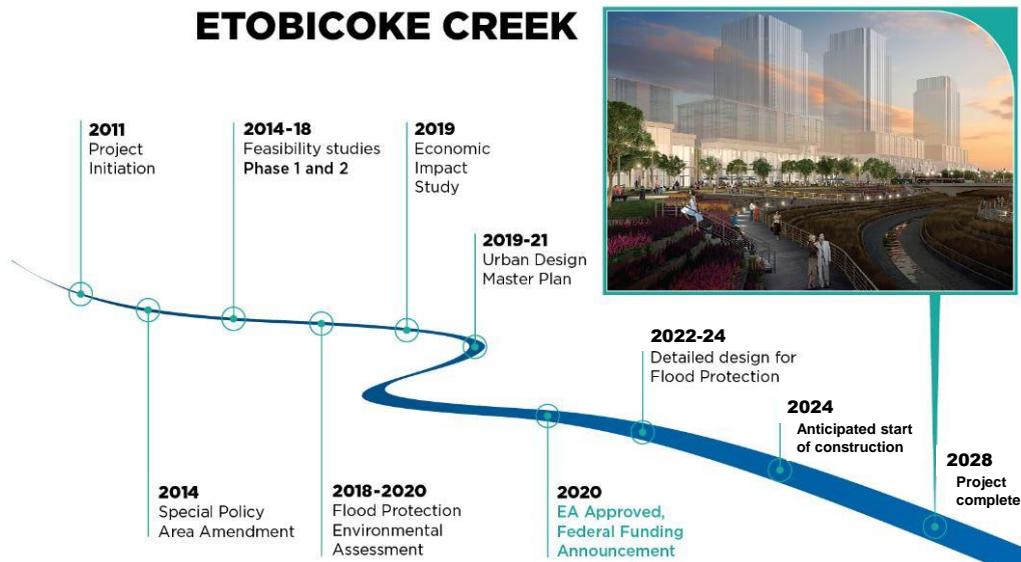


DBFP includes:

- Widen and deepen Etobicoke Creek from north of Church to south of CN
- Replace bridges at Church, Scott, Queen with larger spans
- Provide additional flow capacity at CN rail via large relief culverts or bridge expansion
- Relocate Ken Whillans Drive to west
- Raise Church Street at Etobicoke Creek

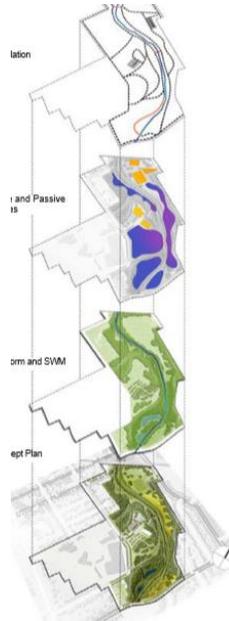
Riverwalk: Downtown Brampton Flood Protection Project Schedule

ETOBICOKE CREEK



Riverwalk: Urban Design Master Plan

- A linear place integrating a succession and variety of natural and man-made spaces and amenities along the valley
- Designed around a sustainable transportation backbone with gateways, loops, views and vistas.
- An Eco-Park, most important Downtown open space with ample programming opportunities and strong character and identity enhancements
- Together with the mobility and the innovation hubs will be key revitalization factor, attraction for people, business, re-defining downtown and Brampton



Riverwalk UDMP: Environment, Resilience, Sustainability, Public Health Framework

- Framework stage with integration of issues, recommendations:
 - ✓ climate change mitigation and adaptation, resilience
 - ✓ natural heritage enhancement and access to nature
 - ✓ sustainable mobility
 - ✓ sustainability, green energy and infrastructure
 - ✓ low impact development, storm water management
 - ✓ urban agriculture
 - ✓ active living, public health and wellbeing
 - ✓ economic sustainability, social equity
 - ✓ environmental education and engagement
- Key demonstration project for the Eco Park strategy as premier Eco Space
- Collaboration, partnerships: TRCA, Region of Peel, community
- Potential pilot/demonstration projects including in the interim
- Resilience, Sustainability and Healthy Development Framework to become complete Strategy including performance indicators

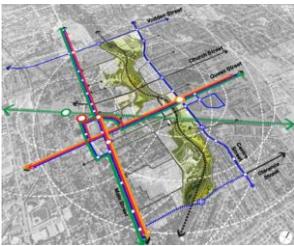
Protect, Preserve & Enhance	Discovery, Education & Interpretation	Safety & Accessibility
<p>Riverwalk is and will remain a vibrant green ribbon weaving through downtown Brampton.</p> <p>Riverwalk will:</p> <ul style="list-style-type: none"> Expand and enhance terrestrial and aquatic habitat for native flora and fauna. Increase biodiversity through the creation of new pollinator meadows and native savannah landscapes. 	<p>Riverwalk will reveal and express its natural and cultural heritage, both past and present.</p> <p>Riverwalk will:</p> <ul style="list-style-type: none"> Showcase the rich natural and cultural heritage associated with Downtown Brampton and the Etobicoke Creek. Share the story of the Etobicoke creek through public art and other installations. 	<p>Riverwalk is a safe and inclusive place for everyone to experience and enjoy.</p> <p>Riverwalk will:</p> <ul style="list-style-type: none"> Provide clear and safe access to the trail for different levels of mobility and ability. Implement a unified wayfinding and signage system for parks and trails to provide consistent identification, orientation and navigation through the Riverwalk



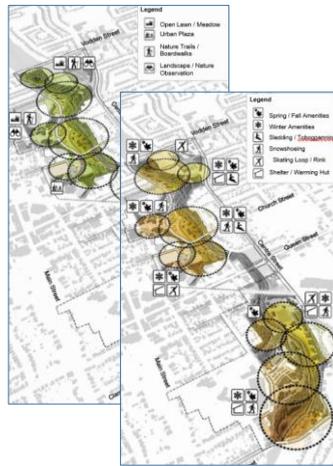
Riverwalk UDMP: Key Outcomes

Active Transportation/Mobility

- Opportunities for active transportation:
 - Improvements to Etobicoke Creek Trail
 - Ken Whillans complete street
 - New John Street bridge
 - walkways, promenades, pedestrian friendly crossings, loops, connections
- Major gateway at Queen and Centre
- Connections - Downtown mobility hub/ GO Station and Transit Terminal and Queen/Centre stop



Programming



Flexible, multi-use, year round programming:

- Organized sports and active living for all ages
- Inclusive play spaces, nature based
- Horticulture, urban gardening
- Opportunities for celebrating indigenous culture
- Public art opportunities and cultural events
- Public amenities
- Wayfinding and signage

Placemaking



Riverwalk UDMP: Demonstration Concepts for Five Areas and Parks

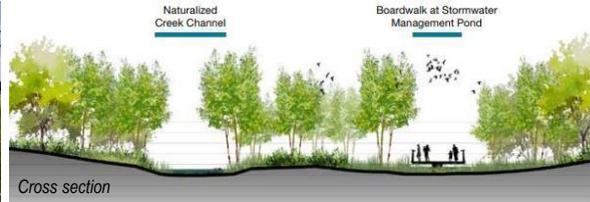
1. Duggan Park
2. Central Public School/ Ken Whillans parkway
3. Rosalea Park
4. Bypass Channel
5. Centennial Park



UDMP: Urban Design Demonstration Concepts – Duggan Park

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- Enhance and increase natural features (woodlot, wetland, riparian edge, etc.)
- New boardwalks and woodland trails, improved access to the water's edge
- New nature-based playground, urban gardening, integrated SWM
- Increase flexible space by relocating existing baseball fields, reconfiguring dogs-off leash area (long-term 10+ years)
- Retrofitted Ken Whilans Drive North portion as complete, pedestrian friendly, sustainable street/parkway with trail, signature landscapes

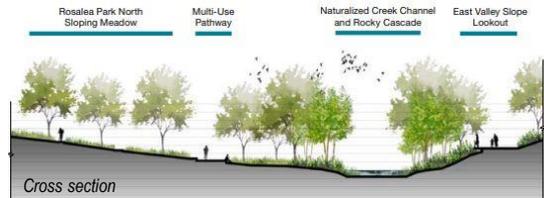


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Riverwalk UDMP: Urban Design Demonstration Concepts Central Public School/Rosalea North Area

2

- Realignment and reconfiguration of Ken Whilans Drive into a complete street
- Regrading of the space on the west side of the creek to create a new meadow landscape
- Improvements to the Etobicoke Creek trail, pedestrian improvements
- Improvements to the Central Public School fields and facilities and connections with adjacent community
- Restoration/enhancements to the natural area along the creek
- Creation of a rocky cascade feature at the mouth of the bypass channel



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UDMP: Urban Design Demonstration Concepts – Rosalea Park Area

3

- Extension of Downtown public open space and events spaces
- Multi use lawn, water features, seasonal programming
- New urban plaza and event space, amenities
- Extension of Ken Whillans Drive, new flexible, shared street
- New trail, walkways, connection to the Etobicoke Creek, Maple St.



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UDMP: Urban Design Demonstration Concepts – Bypass Channel

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- The intersection between the valley/ creek and the city, “a canyon through the city”
- Rehabilitation of Etobicoke Creek bypass channel to provide a better urban and ecological amenity
- Reconnect/improve the Etobicoke Creek Trail, walkways, promenade
- New pedestrian/ cycling bridge at John Street
- New public space and transit stop at Queen/ Centre Streets



View from the west bank looking N-E with the proposed John Street pedestrian / cycling bridge



Cross section



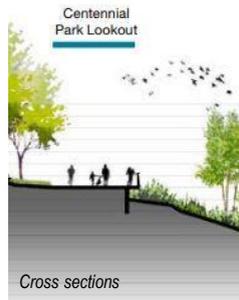
Channel Area: demonstration plan

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UDMP: Urban Design Demonstration Concepts - Centennial Park Area

- Restored and enhanced natural heritage features (wetland, woodland, arboretum, etc.)
- Active and passive programming opportunities
- Improved access and new crossings
- New signature landscape entrances to the park and Riverwalk area
- Improved access to Wellington, James, Main streets
- Interpretation and education opportunities



Cross sections

Centennial Park demonstration plan



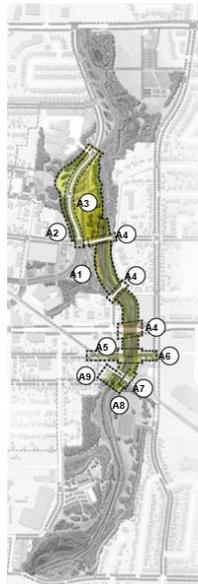
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UDMP: Implementation

Extensive provisions with items categorized by approaches, timing and phasing:

- Phase 1: items related to Flood Protection work
- Phase 2: advanced items associated with Ken Whilans EA and other known initiatives
- Phase 3: longer term projects with future design, approvals and funding
- Interim/incremental projects – smaller, interim or associated with other projects and initiatives
- Preliminary financial considerations



Phase 1 (2022-24 design, 2025-28 construction)



Phase 2 (2023-25 design, 2026-30 construction)



Phase 3 (2024-28 design, 2028-35 construction)

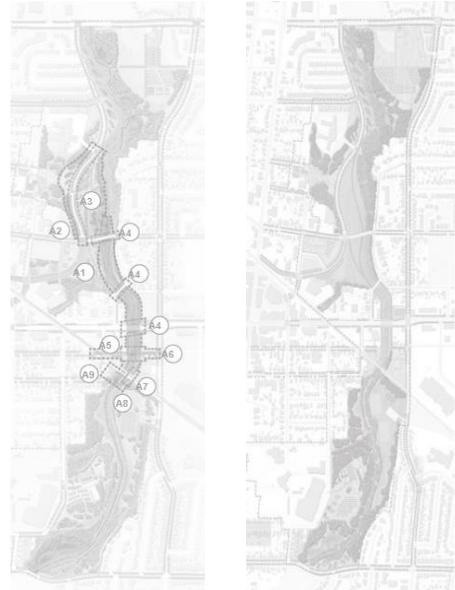


Interim/incremental/associated projects



UDMP: Implementation, Financial Considerations

- EA estimate of \$106 million includes base costs required for flood protection
- UDMP includes additional **functional and urban design items** essential for the success of the Vision 2040 and the Riverwalk.
- Challenging to forecast future design solutions, construction approaches, plausible cost estimates at this high level, master plan stage
- Costs for the UDMP elements will be high, but implemented in phases, over **a long period of time**, through a variety of projects and initiatives, funded from a **variety of sources**
- For the first phase, flood protection implementation, urban design improvements may add significant costs to the initial EA estimate - they are **key for achieving the vision**, for the extensive benefits, for Downtown Revitalization
- The upcoming Detailed Design Phase with the urban design of the UDMP will allow a much more realistic assessment of the costs
- Staff will look at opportunities for funding, potential partnerships
- The advocacy for funding sources and grants will continue



Riverwalk Program: Urban Design Master Plan Benefits

The Riverwalk will bring significant benefits to Downtown, the City and the region, to the the functionality as well as the attraction of the area:

- Improvements to environment, ecology, the natural heritage system
- Significant improvements for Climate Change mitigation/resilience, sustainability, public health
- The creation of an extensive open space system with landmark public spaces and features
- Well connected, high quality spaces for a wide variety of uses and events for equity, diversity and inclusiveness, based on integrated eco-design process
- Redefining Downtown's character and identity including heritage, culture, arts, design excellence opportunities
- Economic development opportunities: job creation, support for City, Provincial, Federal initiatives, investment
- Significant contribution to the Downtown revitalization, a major attraction for residents, visitors, businesses, key factor in investment stimulation, partnerships.



Downtown Revitalization and Development: Riverwalk Area Environmental Benefits

Environment and ecology:

- Vegetation, urban tree canopy, aquatic, terrestrial habitat

Climate change/resilience related:

Adaptation:

- Disaster mitigation: flood protection
- Urban flood reduction

Mitigation:

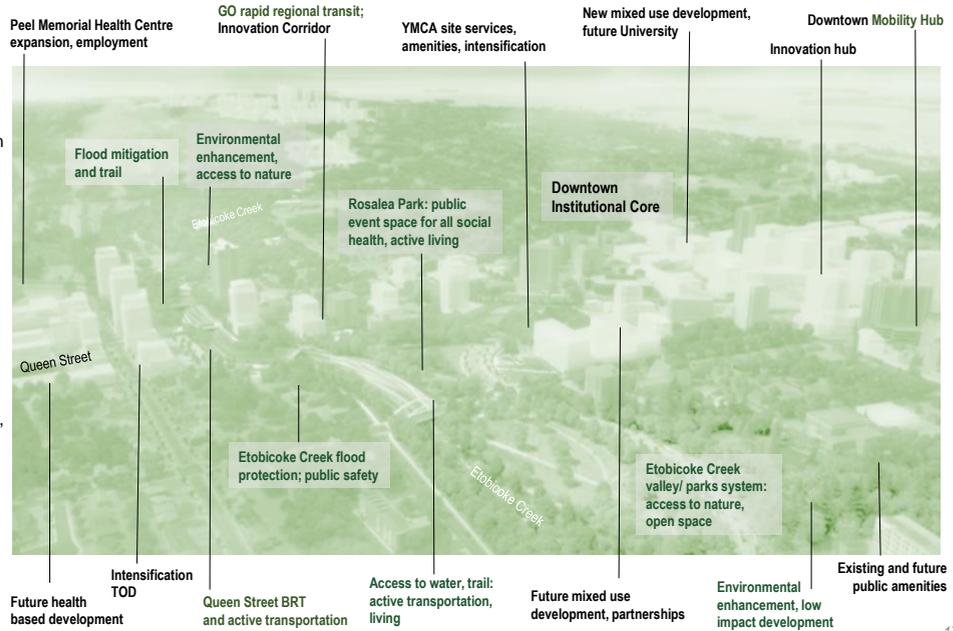
- Gas emissions, heat island reduction, clean energy
- Sustainable mobility: transit, cycling
- Integrated storm water management, low impact development
- Green development / infrastructure

Equity, social, economic resilience:

- Access to jobs, housing, amenities, open space, recreation, nature

Public health:

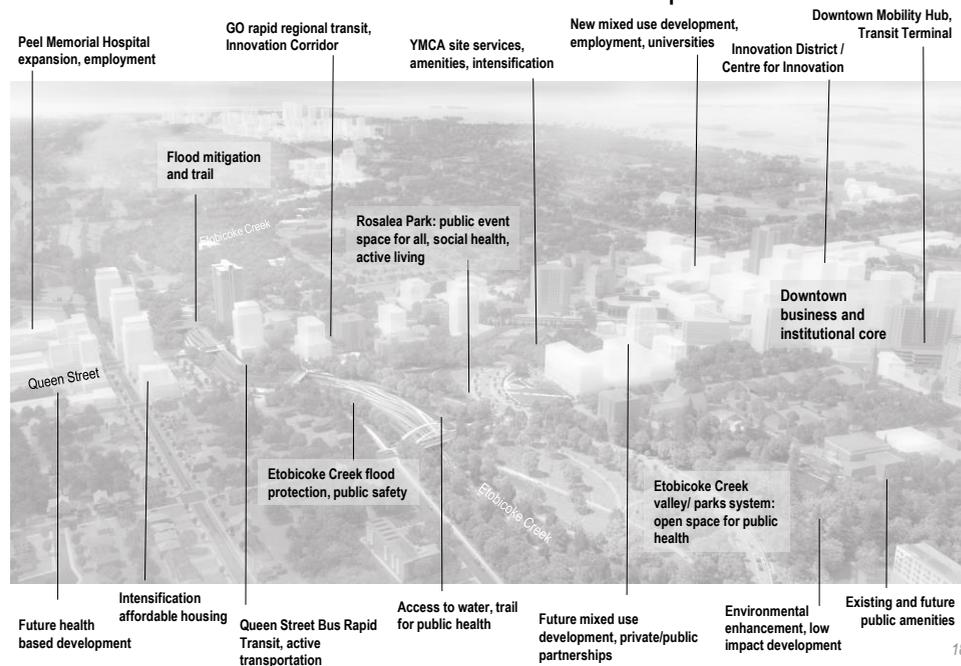
- access to health care facilities
- accessibility, walkability, cycling, active living
- access to nature, clean air, water
- healthy food, urban agriculture
- social and mental health



Riverwalk Program Benefits: Downtown Revitalization and Development

Economic development benefits:

- Job creation (construction, employment attraction)
- Investment, business, talent attraction
- Recreation and culture (including heritage, indigenous culture) development for diverse population
- Development opportunities
 - Public/institutional
 - Private/partnerships
 - Affordable housing and services
 - Seniors, youth
- Support for provincial initiatives and investment
 - GO service extension
 - Bus Rapid Transit
 - Infrastructure improvements



The Riverwalk Program: Conclusion

When completed the Riverwalk will:

- **Protect** from flood and disasters
- **Revitalize** Downtown and surrounding area
- **Trigger** infrastructure renewal including blue green
- **Generate** employment, attract people, investment
- **Develop** central park system, demonstrate **Eco Park Space**
- **Build** community, support diversity, bring people together
- **Make a resilient, sustainable, healthy Downtown and City**
- **Support** equity, diversity and culture, improve social life
- **Stimulate** new approaches, innovation, change

