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Krosno Creek Stormwater Management Facility K-16

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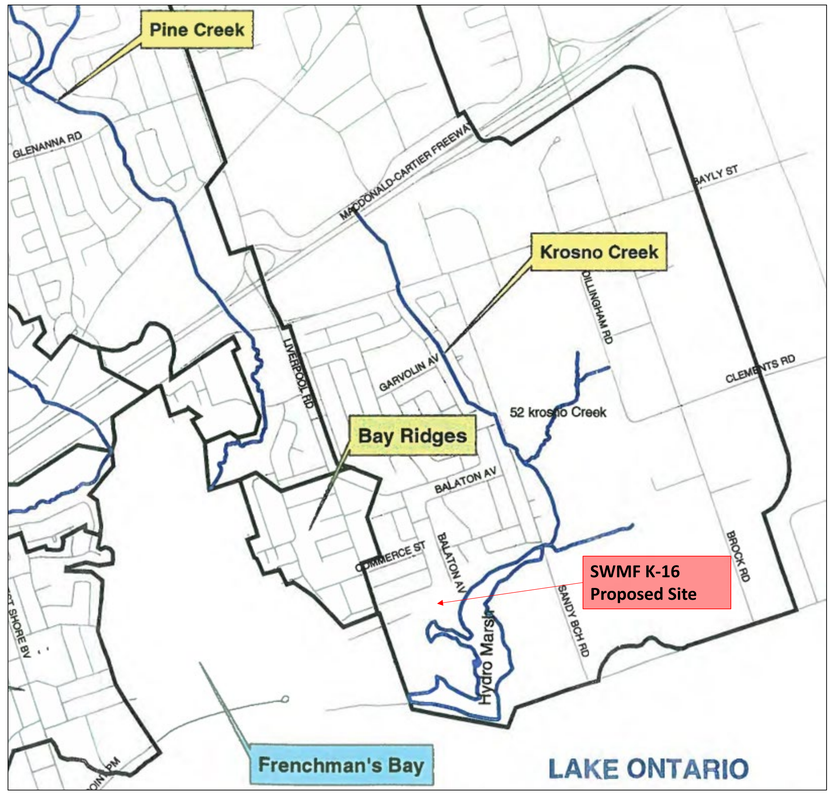
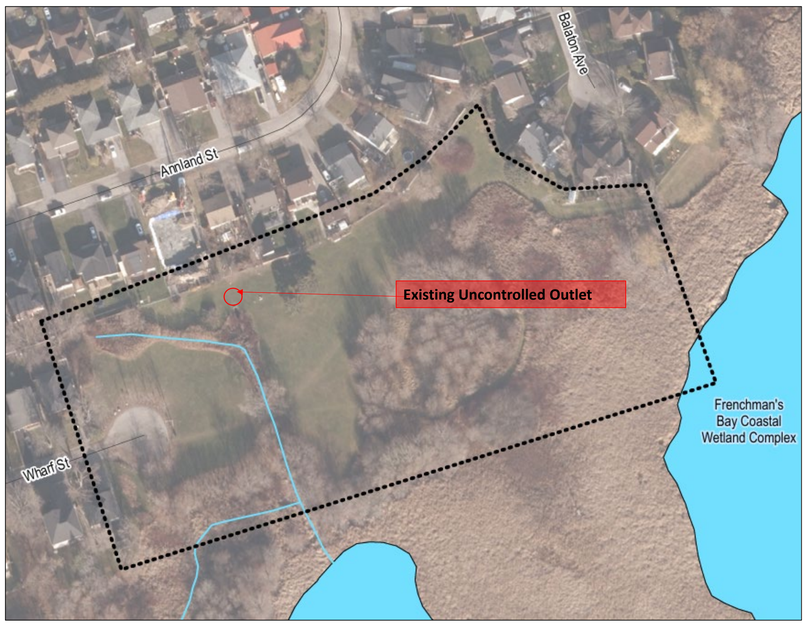
History and Background

- ❑ Stormwater runoff from roads, including Highway 401, carry salt, oil and debris, and other pollutants into local waterways.
- ❑ The Frenchman's Bay Watersheds Stormwater Management Master Plan (FBSWMMP) prepared by MMM Group Ltd. (2009) identified that uncontrolled stormwater runoff into the Bay has led to a decline in water quality over time, negatively impacting the local ecosystem.
- ❑ SWM Facility K-16 was identified in the FBSWMMP as an opportunity to improve water quality control.
- ❑ Krosno Creek is one of the main four tributaries of Frenchman's Bay and was recommended for water quality control through an End-of-Pipe (EOP) facility or alternative.



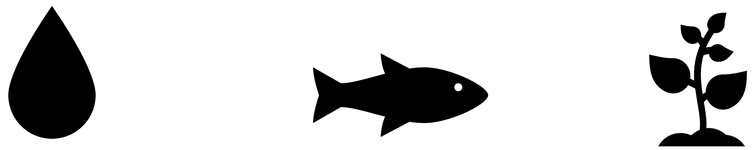


Alderwood Park

- ❑ Located at the eastern end of Wharf Street.
- ❑ Existing use is an open green space with unofficial walking paths.
- ❑ Borders the Frenchman's Bay coastal wetland complex.
- ❑ Contains an existing uncontrolled outlet into Frenchman's Bay.

Project Goals and Progress

Here are the goals of the SWM Facility K-16 :



Enhanced water quality control to protect Provincially Significant Wetlands (PSWs) in Frenchman's Bay.

Maintain a safe outdoor space that can continue to be used by community members.

Planting trees and a mixture of native and pollinator plants to improve biodiversity in the park.

SWM Facility K-16 Project Timeline:

Project Initiation — Spring 2025

- ✓ Frenchman's Bay SWM-MP
- ✓ Project Goals
- ✓ Alderwood Park Site Chosen

Pre-Design — Summer 2025

- ✓ Feasibility Assessment
- ✓ Site Investigations
- ✓ Conceptual Design Chosen

PIC — Spring 2026

We are here!

Final Design — Summer 2026

- ❑ Final Design Development
- ❑ Construction Procurement

Construction — 2027

- ❑ Mobilization
- ❑ Construction Works
- ❑ Restoration

What is an End-of-Pipe Facility?

- ❑ Stormwater runoff from a neighbourhood or catchment area is routed to a centralized End-of-pipe (EOP) facility before it is released to a natural watercourse.
- ❑ EOP Surface facilities are designed for water quality control to comply with the Ministry of the Environment, Conservation and Parks guidelines.

EOP Wet Pond Facility

EOP Wetland Facility

EOP Alternatives

❑ Aquafor completed the Krosno Creek SWM Feasibility Assessment (2025) to evaluate the three (3) EOP surface facilities.

- ❑ **Wet Pond:** A deep open-water pond, containing a Forebay and a Main Cell. These facilities have a typical maximum depth of 2.0m.
- ❑ **Wetland:** A shallow and densely vegetated wetland, containing a Forebay and a Wetland Cell. These facilities typically have a maximum depth of 1.0m and 0.3m in each component respectively.
- ❑ **Hybrid Pond:** A combination of a deep open-water Forebay and a shallow Wetland Cell. These facilities typically have a maximum depth of 2.0m and 0.3m in each component respectively.

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Alternative #1: EOP Wet Pond

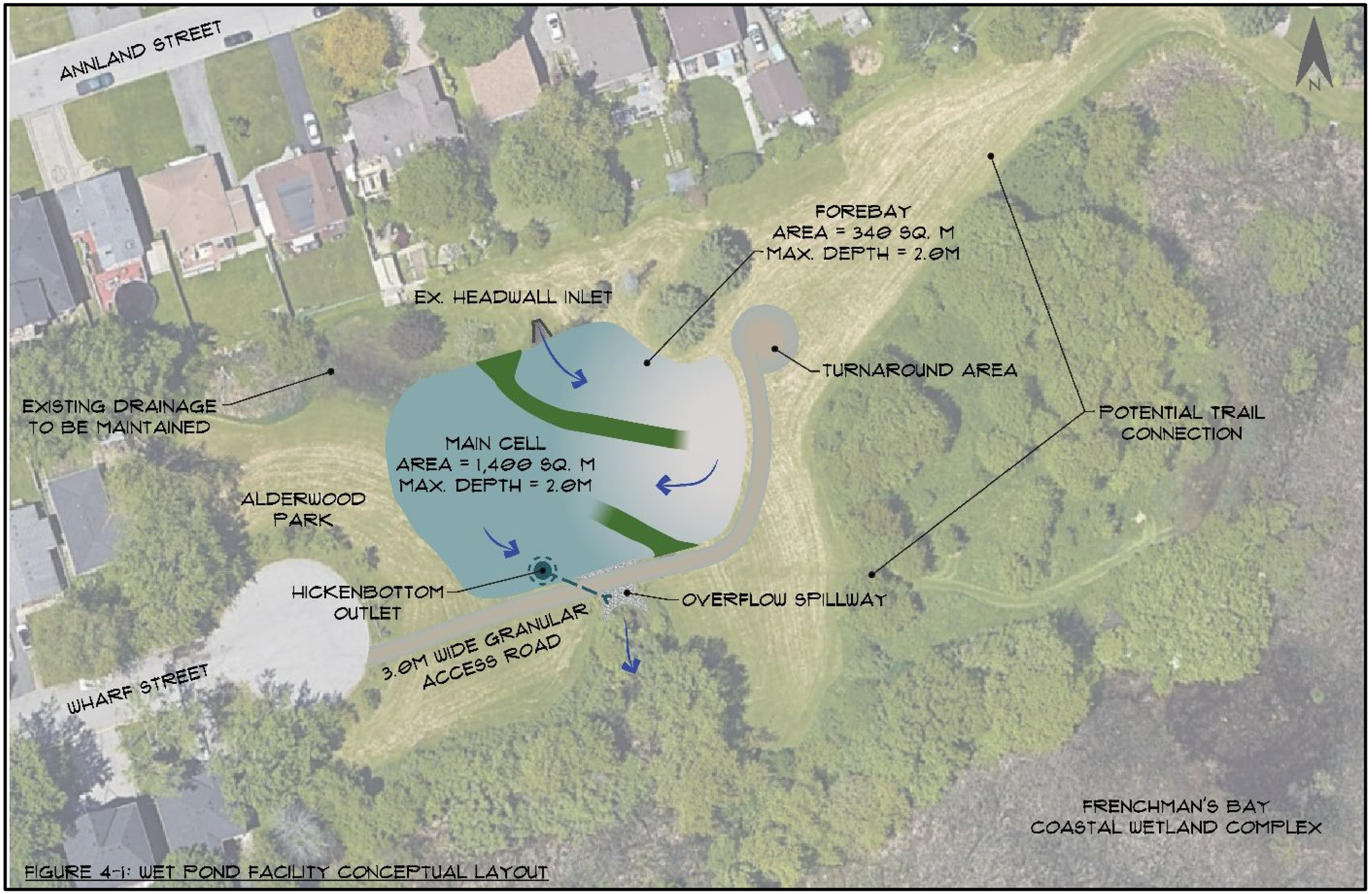

FIGURE 4-1: WET POND FACILITY CONCEPTUAL LAYOUT

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Alternative #2: EOP Hybrid Pond

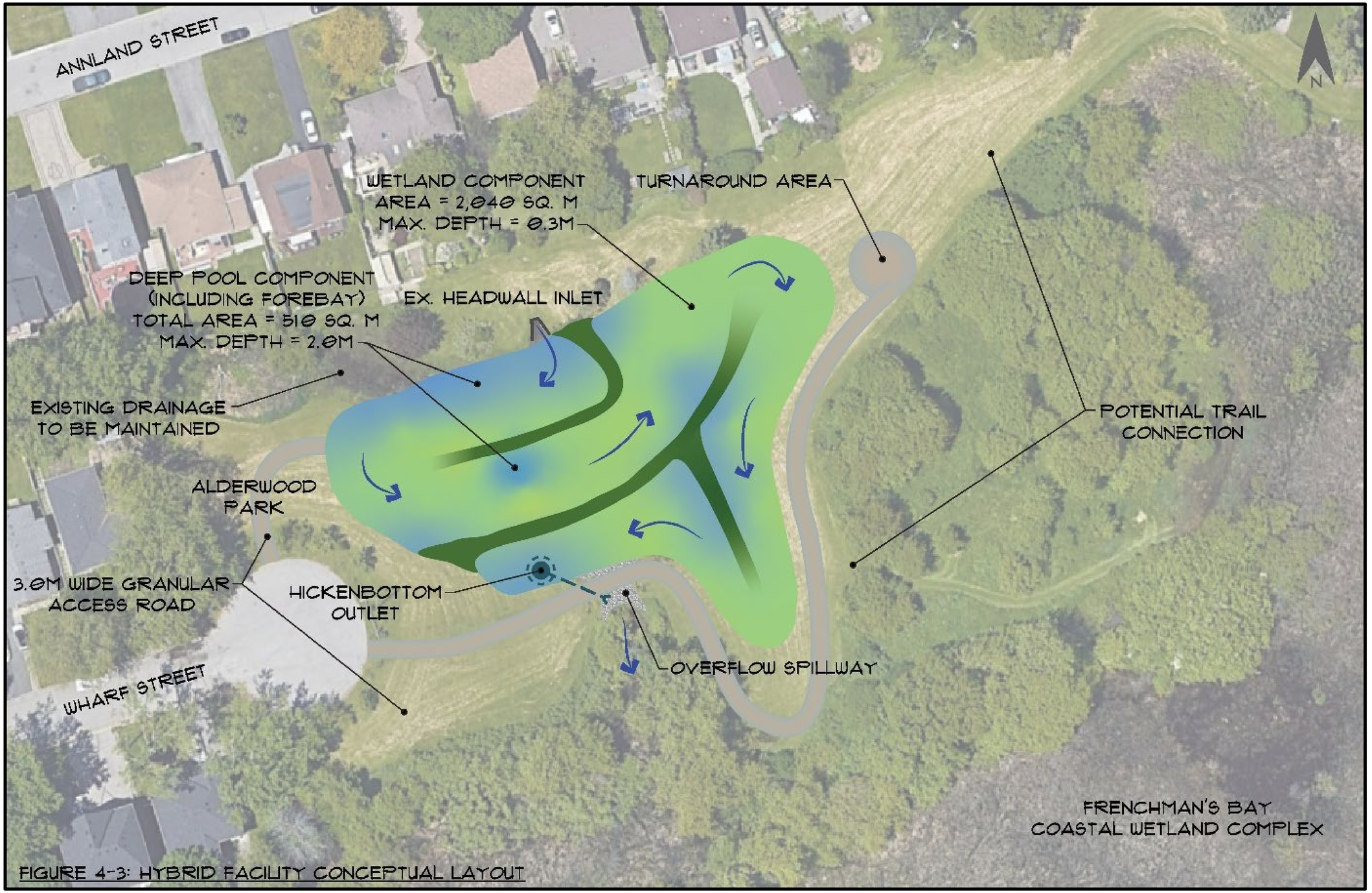


FIGURE 4-3: HYBRID FACILITY CONCEPTUAL LAYOUT

Alternative #3: EOP Wetland

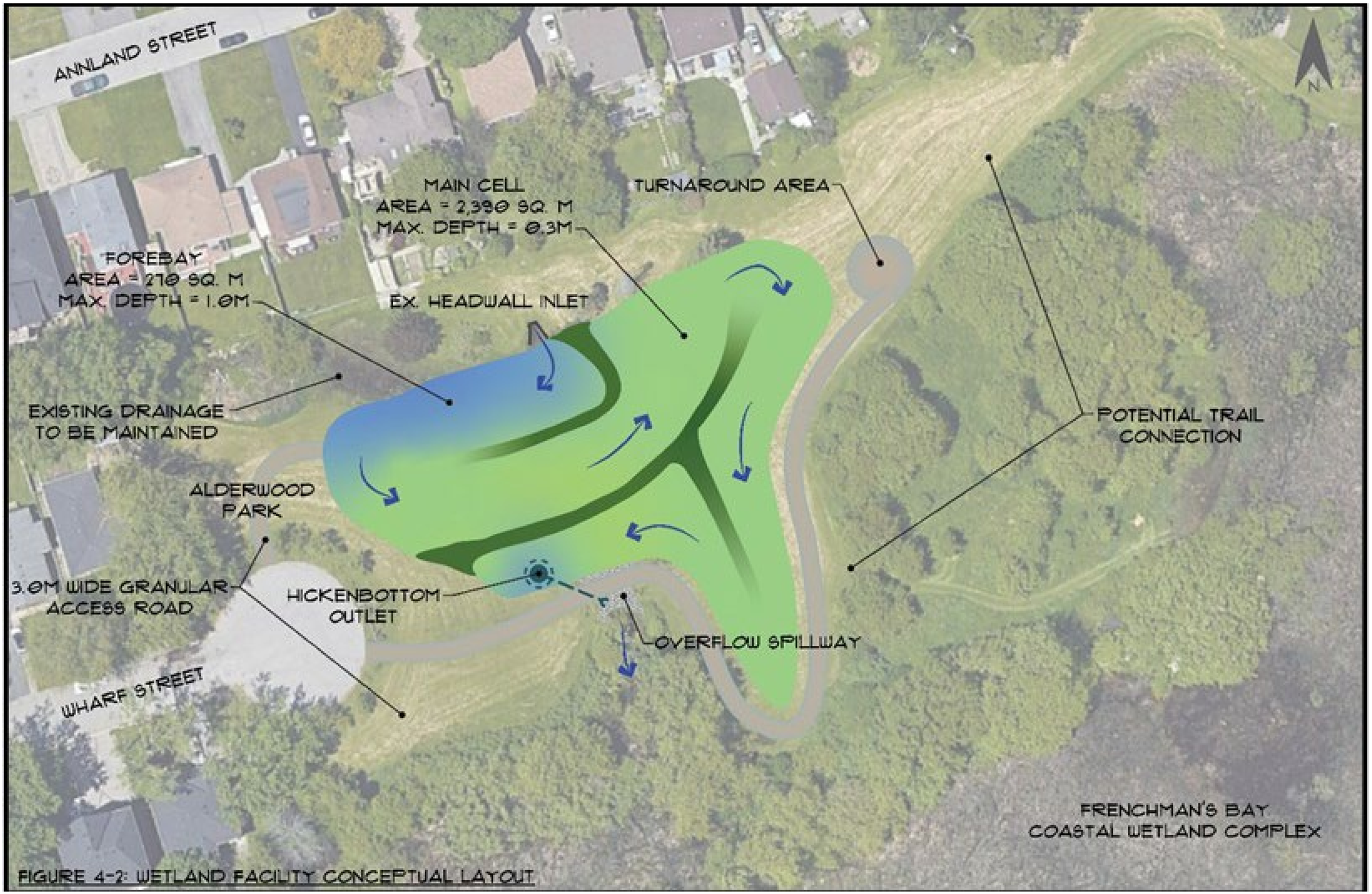


FIGURE 4-2: WETLAND FACILITY CONCEPTUAL LAYOUT

Design Alternative Evaluation

SWM Approach	Social/Cultural		Economic	
	Public Health & Safety	Accessibility to Informal Trails	Capital Cost	Maintenance Cost
EOP Wet Pond			$1.3 – 1.7 million	
EOP Hybrid Pond			$1.2 – 1.5 million	
EOP Wetland			$1.0 – 1.3 million	

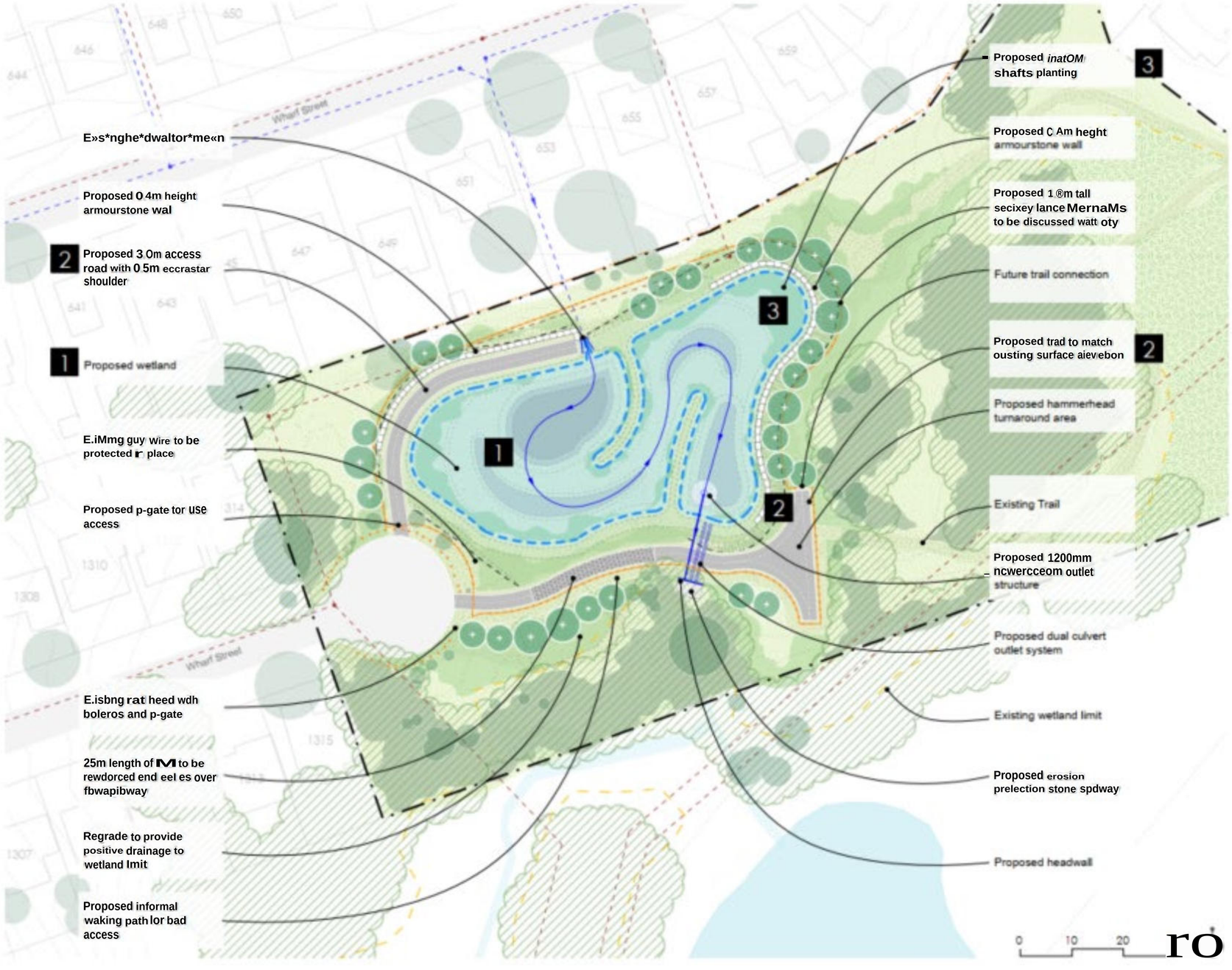
SWM Approach	Overall Ranking
EOP Wetland	1st
EOP Hybrid Pond	2nd
EOP Wet Pond	3rd

SWM Approach	Natural Environment		Technical Feasibility	
	Water Quality Improvement	Risk of PSW Encroachment	Required Footprint	Construction Complexity
EOP Wet Pond				
EOP Hybrid Pond				
EOP Wetland				

LEGEND	
	Best Performance
	Good Performance
	Average Performance

Krosno Creek SWM Facility K-16 Preferred Conceptual Design - EOP Wetland

Site Plan



Stormwater Management Facilities

Wetland

Access Rood

Restoration Planting & Habitats

legend

- Focal Area
- Erect Grading
- Eostmg Stormwater Pipe
- Erabrg Sanitary P«>*
- Ensbng Wetlard Limrt
- Flow Path
- Existing Trees
- Proposed Wetland
- Proposed Trees
- Proposed Trad
- Eirsbng Dense Vegetation
- Errsnrg Trad
- Ensbrg Fencing
- Proposeo Armourstone Wal
- Proposed Security Fencing

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Construction Expectations

Working Hours

Construction work will take place Monday to Friday between the hours of 7:00am to 7:00pm. Extended hours will be on an as needed basis as approved by the City.

Closures to trails and sidewalks

Trails and sidewalks along the construction access will be closed during construction. Buses and emergency services will be notified of construction as required.

Disturbance

Noise, dust, mud and vibrations should be expected. We have taken precautions to limit disturbance as much as possible.

Site Access

Site access to Alderwood Park via Wharf St. from Liverpool Rd.

Total Truckloads

25-50 trucks per day during peak hauling times (3-4 weeks, intermittent).

General Construction Timing

Anticipated Start: Spring 2027.
Anticipated Finish: Winter 2027.
Estimated to take 6-10 months to complete. City will provide notification on start dates closer to construction.

Anticipated Haul Route:	**Westbound:** Liverpool Road to Highway 401. **Eastbound:** Liverpool Road to Bayly Street to Brock Road to Highway 401.

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