Roseland Creek Erosion Control Works
Phase 4
DETAILED DESIGN & CONSTRUCTION REVIEW
September 7th, 2017
The study area is shown below along the reach of Roseland Creek approximately 260m Upstream of Lakeshore Road
STUDY BACKGROUND

Channel erosion and deterioration of the Roseland Creek Corridor within the study area have created risks to the environment, infrastructure, public safety, and loss of private property.

Aquafor was retained by the City of Burlington and has undertaken an erosion control detailed design for the section of Roseland Creek extending approximately 260m upstream from Lakeshore Road to Lakeshore Road.

PUBLIC INFORMATION CENTRE PURPOSE

This Public Information Centre (PIC) is Designed to:

• Present information on existing conditions
• Present detailed design, summarizing the construction details, tree removals, access, and types of equipment
• Prepare residents and stakeholders for pending construction
EXISTING CONDITIONS

Roseland Creek Erosion Control Works Phase 4
Detailed Design and Construction Reviews

Photo A – Deteriorated Gabion Baskets at Base Level

Photo B – Concrete Block Emergency Repairs

Photo C – Undermined Gabion Baskets with Evidence of Planform Adjustment

Photo D – Highlighting Base Level Lowering via Undermined Roots and Gabion Baskets

Photo E – Exposed Shale Bedrock and Tree Roots

Photo F – Failing Bank Stabilization Infrastructure

Photo G – Bank Erosion
DETAILED DESIGN

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DETAILED DESIGN

Cross Sections

Roseland Creek Erosion Control Works
Phase IV Detailed Design

Aquafior Beech

Burlington
Roseland Creek Erosion Control Works Phase 4
Detailed Design and Construction Reviews

DETAILED DESIGN

DETAILED DESIGN

DETAIL 10 - SANITARY SEWER PIPE BEDDING, BACKFILL AND CONCRETE ENCASMENT

DETAIL 11 - CONSTRUCTION FENCE DETAIL

DETAIL 12 - ARMOURSTONE WALL NEAR BUTTERNUT

NOTES

- Silt fences shall be installed at each construction work site, as required by the contractor.
- All construction fences shall be constructed in accordance with the applicable sections of the City of Burlington's By-Law 1999-0138.
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DETAILED DESIGN

TABLE: TOTAL TREE INVENTORY

<table>
<thead>
<tr>
<th>Tree Category</th>
<th>Species Name</th>
<th>備註</th>
<th>Inventory Number</th>
<th>Total</th>
<th>Location</th>
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- General Notes for Erosion and Sediment Control:
  - Pay strict attention to the prohibition of disturbance of any sort of natural vegetation or environment surrounding the area.
  - All work within the area must be completed with the least disturbance to the existing vegetation.
  - Ensure all equipment and materials are removed from the site after the completion of the work.

- Specific Notes for Site Preparation:
  - All existing trees and vegetation within the project area must be preserved as much as possible.
  - Any removal of trees or vegetation must be done with the necessary permits and following the guidelines provided by environmental agencies.

- General Notes for Construction:
  - All construction activities must be completed with the least disturbance to the existing vegetation.
  - Ensure all equipment and materials are removed from the site after the completion of the work.

- Specific Notes for Site Preparation:
  - All existing trees and vegetation within the project area must be preserved as much as possible.
  - Any removal of trees or vegetation must be done with the necessary permits and following the guidelines provided by environmental agencies.
DETAILED DESIGN EXAMPLES

Lunker structure example as fish features

Roseland Creek between New Street and Spruce Avenue

Roseland Creek immediately upstream of Phase 4 study area
CONSTRUCTION ACTIVITIES AND BEST MANAGEMENT

• Experienced Contractors
• Construction Supervision by a Qualified Professional
• Safety First Mentality – PPE, WSIB, OH&SA
• Erosion and Sediment Control
• Flow Management Throughout Construction
• Fish Removals From Work Areas
• Tree Preservation Plan
• Post Construction Monitoring
• Daily Noise (M-F, 7am – 7pm)
• Conveniences for Workers (Trailer / Privy)
Thank you for participating in the Roseland Creek Erosion Control Works Phase 4 Detailed Design and Construction Reviews.

Implementation


To provide comment, or to be added to the study stakeholder list, please contact:

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