



PORT COLBORNE

Subject: Pleasant Beach Road Retaining Wall Update

To: Council

From: Public Works Department

Report Number: 2023-217

Meeting Date: October 24, 2023

Recommendation:

That Public Works Department Report 2023-217 be received and;

That Council direct the Director of Public Works to proceed with replacing the Pleasant Beach Road retaining wall.

Purpose:

This report has been prepared to provide Council with additional information relating to the Pleasant Beach Road retaining wall report previously discussed at the October 10, 2023, Council meeting.

Background:

Staff report 2023-197 was approved by Council on October 10, 2023, which requested Council's approval to direct staff to replace the retaining wall located at the Pleasant Beach Road end for the total estimated cost of \$1,000,000. Council further requested that staff provide Council with a detailed cost estimate for the best options to replace the structure prior to the request for a tender.

Discussion:

Staff communicated with three qualified engineering consultants experienced with shoreline protection to determine the most cost-effective solution to remediate the collapsed wall.

In attempt to obtain detailed cost estimates for each of the options provided in Report 2023-197, it was confirmed that further investigations relating to soil conditions, design, and existing rock elevations are required. All three engineering consultants were unable to provide a cost estimate for the reinstatement of the dune. This option would require further geotechnical investigation and a detailed design by a certified coastal engineer to obtain accurate cost estimates. Adjacent properties that do not have shoreline protection, and have been left in a natural state, show significant amounts of deterioration even when planted with full root structures present.

To date, staff have obtained the following high-level cost estimates based on their experience and a site visit with various unknowns to the existing conditions below surface.

Based on the average price and lifespan of each option, the following average cost per year is outlined below:

| | Average Initial Cost | Average Lifespan | Lifecycle Cost/Year |
|------------------|----------------------|------------------|---------------------|
| Sheet Pile Wall | \$933,333.33 | 100 | \$9,333.33 |
| Armor Stone Wall | \$637,500.00 | 75 | \$8,500.00 |

City staff have contacted the Ministry of the Environment, Conservation and Parks for approval to complete work in the area. The City's environmental consultant has been consulted and has recommended that construction take place outside of the Fowler's Toad active season which is between May 1 and August 31.

Staff are committed to ensuring that the design and construction of the retaining wall will be the most cost-effective and resilient solution.

In order to mitigate risk and have the project constructed as quickly as reasonably possible, staff anticipate the need to follow a non-standard procurement process.

Financial Implications:

Report 2023-197 was approved and provided an upset limit of \$1,000,000 to replace the retaining wall.

Strategic Plan Alignment:

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Environment and Climate Change
- Welcoming, Livable, Healthy Community

- Sustainable and Resilient Infrastructure
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Conclusion:

After further discussions with several engineering consultants, staff recommend proceeding with the replacement of the retaining wall.

Respectfully submitted,

Joe Colasurdo
Manager of Infrastructure
905 835-2900 ext. 234
Joe.colasurdo@portcolborne.ca

Report Approval:

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.