

Information Report

Title: Boardwalk Design

Report Number: Recreation & Community Programs-2025-01

Director: Community Services

Manager: Manager.

Meeting Date:

Wednesday, February 12, 2025

Executive Summary:

In March 2024, GM BluePlan (now GEI) presented findings and recommendations for the future design of the Station Beach Boardwalk. Staff and consultants heard from the public the desire to have a wood-like finish for a new boardwalk. Since that time, staff and engineers have researched the impacts that composite versus concrete surfacing will have for longevity for the boardwalk.

Context and Background Information:

The 2023 Waterfront Master Plan identified the need for improvements to the Station Beach Boardwalk. The existing condition of Station Beach Boardwalk has been identified by staff and concern by the public who use it. The boardwalk has been discussed through numerous public engagement platforms as an item that needs to be repaired.

In 2023 staff replaced several boards along the boardwalk to ensure that pedestrians had a safer route until replacement was completed. Based on staff's minimal level of service, housekeeping is completed once a week on the boardwalk with a small tractor to sweep sand that has migrated through beach access points along the boardwalk. This tractor is reaching the end of its lifespan, and ideally a trackless should be used, which is more effective. This on-going process also contributes to hazards of boards being pulled off their former foundations. Currently, the existing boards are not attached to any fixture due to the deteriorated condition of the original subsurface caused by lack of air circulation.

The Waterfront Master Plan suggested that consideration be given for the boardwalk:

- Material options to ensure the new boardwalk is durable, long-lasting, suitable for waterfront and its users
- Planning for routine maintenance and repairs ahead of time, to prevent the need for premature replacement

In 2024, Council approved \$50,000 for concept designs for a replacement design. Council approved the concept design on March 13, 2024, which was shared by staff and GEI Engineer, Amanda Froese.

As presented in March, Amanda Froese shared the following information:

“Materials:

- Wood
- Composite or plastic
- Interlocking stone or flagstone
- Stamped concrete

Recommendation: Use Composite/Plastic boardwalk material with stamped concrete at the entrance connections to the parking lot:

- The boardwalk should be designed with 2.4m width, built in modular sections for maintenance, and board spacing to ensure accessibility.
- Entrances to the parking lot should be wider, for congregating and drop-off considerations
- Access ways to the beach should be curved (S-bend) and made from composite material
- Mobi Mats or modular equivalent for beach access terminations”

Further investigation into using composite has raised concerns that will impact the overall effectiveness and operations of a completed boardwalk.

Pros	Cons
<p>Concrete Service</p> <p>Provides the longest longevity of material</p> <p>Minimal maintenance except for weekly sweeping</p> <p>Can support the trackless for sweeping</p> <p>Can provide different stamped finishes to provide a beach boardwalk feel</p> <p>Accessible and easy for caregivers to push strollers and wheelchairs</p> <p>Easy and quicker to complete</p> <p>Able to accommodate tactile warning plates at parking lot easier</p>	<p>Concrete Service</p> <p>Can look cold and uninviting if not finished appropriately</p> <p>Concrete costs can fluctuate depending on the market</p> <p>Potential not to have the “boardwalk” feel</p> <p>Decorative stamp/pattern can add to cost</p> <p>Not viewed as a “natural” material</p>
<p>Composite/Plastic Boardwalk</p> <p>Aesthetically pleasing</p> <p>Provides the user the sense and feel of a beach environment</p> <p>Closer resemblance to “natural” wood</p> <p>Provides uniform material through project</p>	<p>Composite/Plastic Boardwalk</p> <p>Shorter lifespan</p> <p>Sand migration could start to force boards off their structure</p> <p>Additional cost to provide a middle concrete support to run the entire length of the boardwalk to decrease composite from warping</p>

	<p>Additional staff resources to maintain throughout its lifespan</p> <p>On-going use of heavy machinery to maintain will start to warp boards</p> <p>Hot to the touch for bare feet</p> <p>Can be slippery when wet</p> <p>Width should be reduced to 1.8 metre to reduce warping of boards</p>
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Alternatively, replacing like-for-like with pressure treated wood would be the most economical route; however, Council should be aware that it would not provide a long-lasting asset and would need reoccurring maintenance to repair sections as they deteriorate.

Both the composite and wood boardwalk structures would require increased maintenance to ensure sand does not accumulate under the structure and that there isn't a repeat of the current situation of the boardwalk. This would involve regular blowing of the sand from under the structure to avoid accumulation of build up, which in turn can force the boards off their foundation and contributes to decay in wood products.

Although wood board walks can be seen in neighbouring communities, such as Goderich. It is important to note that they do not have relic sand compound. This is fine sand that becomes airborne and is irreplaceable but can move swiftly with increased wind.

Patterned concrete with a boardwalk pattern was recently installed in Owen Sound's Downtown River District and provides the visual impact of a boardwalk. This work was done by a local contractor. It is a simple alteration from standard sidewalk construction.



Ideally, staff anticipate on having a combination of both the stamped concrete in high usage areas, and the composite in areas that can be adjusted, such as beach access points.

The construction project management for this project will be administered by a third party that will provide day to day inspection and (to a degree) supervision to ensure the project remains on time and on budget. This cost has been allocated in the 2025 draft budget. This does not mean that municipal staff will be removed from the project. Kincardine Staff will be involvement through regular, scheduled meetings to review the process and determine any risks that may be escalating.

Additionally, through meeting with the Garden Plot volunteers, staff have committed to assisting them in transplanting their existing gardens to a temporary site while construction is in place and the relocation of vegetation back to their new plots. This is required to ensure irrigation is installed. Currently, staff has to manually turn on the irrigation. In early summer 2024, we experienced a drought, and it was quickly brought to staff's attention that many areas of the irrigation were inoperable. This involved a significant time for staff to provide temporary irrigation for the users. If approved, the work in 2025 will be commencing from the northern limit point down to the southern washroom. Further phase will be considered in 2026 as part of budget deliberations which will finish off the remaining sections to the south of the boardwalk.

Consultation Overview:

GEI staff have corresponded with the Lake Huron Coastal Centre, and Saugeen Valley Conservation Authority as well as the Accessibility Advisory Committee. These conversations occurred during the development of concept designs.

Further conversations will provide detailed drawings to SVCA through the permit application as well as consultation with SON and final design to the AAC.

Staff have previously consulted with our insurer on the existing condition of the boardwalk and potential hazards associated with trip and fall injuries. The Municipality's liability policy would respond and defend the Municipality from allegations of negligence, should someone suffer an injury. However, since these hazards have been identified, the Municipality should give strong consideration in making the necessary repairs in the budget as soon as the financial resources are available. Otherwise, the Municipality is exposed to increased risk.

Origin:

Waterfront Master Plan

Attachments: None

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