



City of Richmond

Report to Committee

To: Parks, Recreation and Cultural Services Committee
From: Serena Lusk
Interim Director, Parks and Recreation
Date: October 4, 2017
File: 06-2345-20-
GARR2/Vol 01
Re: 2017 Garry Point Park Legacy Pier and Floating Dock

Staff Recommendation

That a preferred alternative from the options described in the staff report titled "2017 Garry Point Park Legacy Pier and Floating Dock," dated October 4, 2017, from the Interim Director, Parks and Recreation, be identified to provide staff direction regarding future advanced planning, detailed design and Capital submissions.

Serena Lusk
Interim Director, Parks and Recreation
(604-233-3344)

Att. 5

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:
APPROVED BY CAO	

Staff Report

Origin

At the May 26, 2015, Parks, Recreation and Cultural Services Committee meeting, staff received the following referral:

That staff prepare a concept and develop cost estimates for the modification of the Garry Point Park marine pilings and associated structures for the creation of a permanent pier and accessible float to be considered as a legacy project for the Canada 150 Fund and report back to Committee.

And on June 27, 2017, Parks, Recreation and Cultural Services Committee meeting, staff received the following referral:

That staff examine options for a permanent float at Garry Point and report back.

The purpose of this report is in response to the above referrals and to present options for consideration of a 2017 legacy waterfront community infrastructure to celebrate and commemorate Richmond's maritime history.

This report supports Council's 2014-2018 Term Goal #2 A Vibrant, Active and Connected City:

Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.

2.3. Outstanding places, programs and services that support active living, wellness and a sense of belonging.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

6.1. Safe and sustainable infrastructure.

6.2. Infrastructure is reflective of and keeping pace with community need.

Analysis

Background

In October 2010, a new waterfront development legacy project was initiated at Garry Point Park to enhance, promote and accommodate tourism and maritime activities within the Steveston Harbour. The improvements, which included a 600 foot floating dock and 12 steel piles to secure

the structure, are located on both City-owned water covered lot/parkland and partly on Crown Provincial's waterlot managed by the Ministry of Forests, Lands and Natural Resources Operations (FLNRO) (Attachment 1).

In January 2017, the City received a 30 year tenure license lease agreement with FLNRO for the use of their waterlot that allows the City to host special events on a seasonal and temporary basis only. Any new permanent structure proposed in their waterlot will require a formal application for review and approval from the Ministry. This lease agreement with the FLNRO will expire in 2046.

This waterlot location in front of Garry Point's western beach is where Richmond has the deepest water depths available to accommodate large Class A vessels requiring a minimum of 7 metres draft. In comparison, Steveston Harbour's navigation channel from the mouth of Garry Point to Imperial Landing only, has a maximum depth of 4 to 5 metres. Alternatively, the No. 3 Road Pier waterfront currently has up to 5 metres depth as well and will require ongoing maintenance dredging and disposal of sediment materials if the City wishes to host a large Class A vessel at that site in the future.

The works in 2010 at Garry Point Park included:

- The construction and installation of a 600 x 20 foot wide steel and timber modular float located approximately 150 feet from the main beach/shoreline;
- The installation of 12 permanent steel piles, 42 inch diameter, to secure the float (at depths of more than 3 metres below local low water); and
- The installation of temporary approach ramps and gangways situated on top of the existing rip-rap (boulder/rocks) areas for access to the float and mitigation of habitat vegetation along the shoreline (temporary piles would be used to secure the approach floats).

The improvements at Garry Point Park, some which were temporary and some which are permanent, were used in 2011 to host the first annual Ships to Shore event. While the steel pilings from the 2011 installation remain in place at Garry Point Park, the 600 foot timber and steel float has been relocated to Imperial Landing (Attachment 2), where it is currently programmed for the annual Ships to Shore and Maritime Festival events.

The Imperial Landing float is also marketed on the Pacific West Coast as a destination for recreational boating with overnight and day moorage service in the protected Steveston Cannery Channel. The Imperial Landing dock has become a popular location for both local residents and visitors allowing them a chance to get close to the water in the Steveston Cannery Channel.

Garry Point Park's Waterlot Challenges

Garry Point Park's waterfront location connects the Steveston Harbour's secondary channel to the main navigational channel of the Fraser River and Sturgeon Banks. As a result, this has significant challenges due to the natural strong currents of the Fraser River and the wave action from marine vessels of all sizes utilizing the main navigational channel leading to open waters. From small fishing boats to large shipping vessels, the wave action from these vessels creates

both a safety concern and a maintenance issue with the erosion of the foreshore and the beaches at Garry Point Park.

This also creates a challenge with the design of a permanent structure to accommodate a maritime use facility in the form of a floating dock or a pier. The floating docks that were constructed in 2010 were designed as a temporary use structure at Garry Point Park to accommodate large Class A vessels such as the Nippon Maru and the Kaiwo Maru only during special events. Applications to the Port of Vancouver for the use of Crown Province's waterlot in 2010 were for hosting annual maritime special events only during the summer season. The floating docks were designed to be modular in four 150 foot sections so they can easily be transported to the Imperial Landing location where they are designed to be located year round.

When the 600 foot long floating docks are located at Garry Point Park, they can be exposed to significant tidal action caused by marine vessel traffic and storm events, resulting in safety concerns for the public during these times. Both in 2011 and in 2017, staff had to close the docks to the public for most of the time prior to the start of the major events. Perimeter fencing was erected around the docks to provide some additional safety measures, however, the storms/winds that were experienced earlier this year from January to May, presented additional concerns for public safety.

The concept of constructing a new pier would alleviate the safety concerns regarding tidal actions since its foundations would be based on a fixed pile structure, however, it would not provide the moorage opportunities for small to medium vessels that will still require a floating dock. The option of constructing a new pier and a new type of floating dock that would allow for both year-round public use of the pier and only seasonal use of the floating dock could be considered.

Permanent Legacy Waterfront Opportunity

A permanent pier and floating dock structure at Garry Point Park will enhance both maritime and special event activities similar to destinations found at White Rock's waterfront and Vancouver's Coal Harbour, where the public can stroll directly at the waterfront's edge or recreationally fish at one of the most desirable waterfront locations in Richmond.

The City's Ships to Shore event in 2011 and the recent 2017 King of the Sea, Kaiwo Maru event to start off the celebrations with Canada 150, have demonstrated the popularity of a major maritime event within the heart of the Steveston Village.

The Garry Point Park is already a popular tourist destination and a permanent new pier and floating dock will only add to the unique character and experience of the Steveston Village. In addition, it would be a legacy infrastructure to celebrate and commemorate Richmond's maritime history and would be enjoyed for years to come.

This proposed legacy project is responsive to Council's adopted Steveston Waterfront Strategy vision of:

A world-class, internationally recognized maritime waterfront that respects the past and lives the future.

The Steveston Waterfront area, with its working fishing harbor, historic village centre, active street life, festivals, and beautiful riverfront setting, will be a unique and popular place to live, work, and play and a key visitor destination for the region.

If approved, the proposed legacy pier and floating dock will be an inclusive amenity accessible by all. Leveraging the strategic location at Garry Point Park, the legacy pier is an innovative modification of the existing 2011 improvements and current investments at the site.

Given the strategic location of the Garry Point Park pilings and the unique deep water access of the site, the location at Garry Point Park can be modified with improvements to facilitate a permanent pier and floating dock infrastructure.

In response to the referral from the June 27, 2017, Parks Recreation and Cultural Services Committee "That staff examine options for a permanent float at Garry Point and report back" staff present the following five options for consideration:

Option 1: New 600 foot Breakwater Floating Dock (Recommended)

Option 1 (Attachment 3) is to design a new permanent floating dock that would provide more stability in an open-water environment such as the waterfront at Garry Point Park. Conceptual designs for a combination floating breakwater/dock suggest that the structure would need to be much wider and deeper than the steel and timber floating docks currently at Imperial Landing. The design would incorporate a concrete and steel structure with deep wedged shaped edges that will provide more stability.

This option does not incorporate a fixed piled pier structure as a view point or a formal headland staging area and will still be exposed to high storm weather conditions that may require the docks to be closed during those times.

Preliminary estimate: \$2.0 million.

Option 2: Permanent Legacy Pier and Float at Garry Point Park

This option (Attachment 4) would take advantage of the strategic location at Garry Point Park and involve the installation of a permanent steel and timber pier structure connecting the two eastern headlands at the man-made Garry Point Park western beach area. The resulting pier would be a significant recreational amenity and legacy addition to the park site. Taking advantage of the existing steel piles, the permanent pier can facilitate water access to a temporary or permanent float, permitting large vessels with deep drafts a safe and secure deep water moorage which is not available anywhere else in the Steveston Cannery Channel.

As in the year 2000 when the City partnered with the Steveston Harbour Authority and Small Craft Harbours to construct permanent piers along Bayview Street over the Fraser River, this proposed installation at Garry Point Park would be located at the entrance to the Steveston Cannery Channel and would become an instant tourist destination as a new amenity that is safe and publicly accessible at Garry Point Park for water viewing, tall ship or other vessel moorage and would also serve as a unique fishing pier.

The architectural and marine engineering consultants have provided a preliminary cost estimate of \$6.0 million.

Option 3: Single Pier Head and New Breakwater Float Located on City's Waterlot

The location of this new concrete floating breakwater/dock could be situated closer to the Steveston Harbour Channel entrance, therefore eliminating the need to consider the Province's waterlot for the installation of City's infrastructure. Five of the existing steel piles at Garry Point Park's waterfront are currently located on the Crown Provincial's waterlot; however, they could be relocated entirely onto the City's water covered lot to support a new single pier head and proposed floating structure. This option would eliminate FLNRO's regulatory requirements and approvals for the use of their waterlot for hosting ongoing maritime special events.

This option would involve the construction of a new pier head at the middle headland of Garry Point Park's beachfront and a new 600 foot long floating breakwater dock with new gangways (Attachment 5).

Preliminary estimate: \$4.0 million.

Option 4: Staus Quo

If neither the permanent legacy pier nor float alternatives presented above are selected, the existing steel piles could remain at the Garry Point Park location, but would only be used for moorage opportunities if the current float at Imperial Landing is temporarily relocated there when required. The costs associated for the transport and set-up of the float and gangways is approximately \$80,000 for a maritime special event at Garry Point Park.

Option 5: Removal of Existing Steel Piles

If Council decides not to host any future maritime special events or an invitation of a Class A type tall ship such as the Nippon Maru or the Kaiwo Maru, the existing 12 steel piles along Garry Point Park's waterfront could be removed.

Next Steps

If a legacy pier project is to be considered as part of the City's Capital process, detailed design along with permitting requirements from federal partners would need to be submitted for approval. Scheduling for the project from design to completion suggests a minimum 15 month timeline.

The summary scope of work includes:

- Detailed design and engineering;
- Topographical depth soundings survey;
- Permit applications to the Ministry of Forest, Lands, and Resource Operations, Environment Canada, Canadian Coast Guard, and the Department of Fisheries and Oceans; and
- Tender for construction.

Financial Impact

None.

Conclusion

This staff report is in response to Council's referral requests from the May 26, 2015, and June 27, 2017, Parks Recreation and Cultural Services Committee meetings. Five options have been presented for consideration. The first three options strategically maximize the location at Garry Point Park and would utilize the existing steel pile infrastructure that was installed in 2011 for future maritime activities.

A Capital submission could be included for consideration as part of the 5-Year Financial Plan Capital Program for 2019, should Council wish to proceed with the construction of a legacy pier and/or breakwater float installation. A detailed design estimate will serve as the total upset figure for future construction and consideration for funding as part of the Capital budget process.



Marcus Liu
Parks Project Technologist
(604-233-3313)

- Att. 1: Garry Point Park Temporary Float Installation in 2011 and 2017
- 2: Imperial Landing Float (Current Location)
 - 3: Option 1 – New 600 foot Breakwater Floating Dock
 - 4: Option 2 – Permanent Legacy Pier and Float at Garry Point Park
 - 5: Option 3 – Single Pier Head and New Breakwater Float located on City's Waterlot

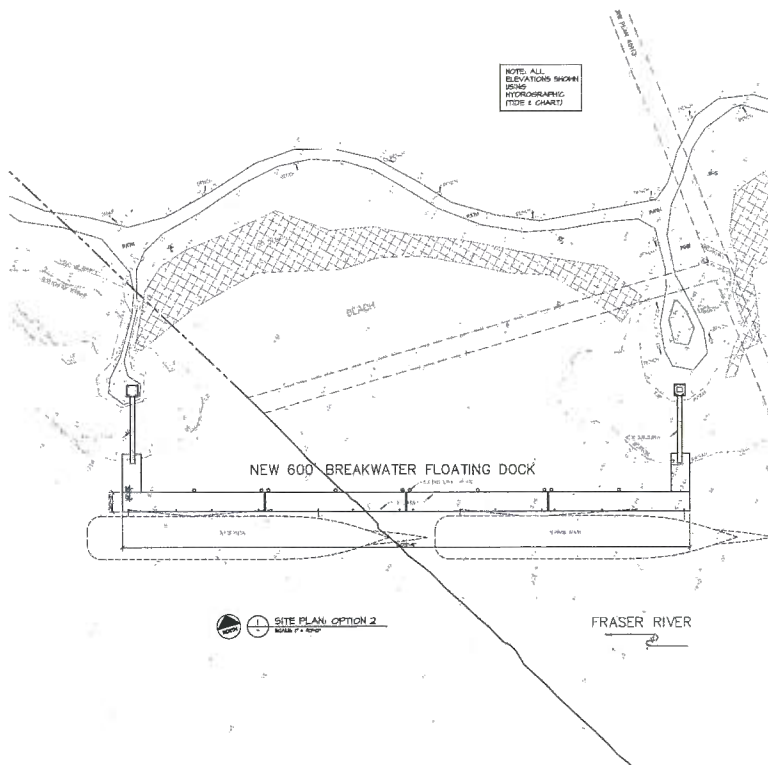
Garry Point Park Temporary Float Installation in 2011 and 2017



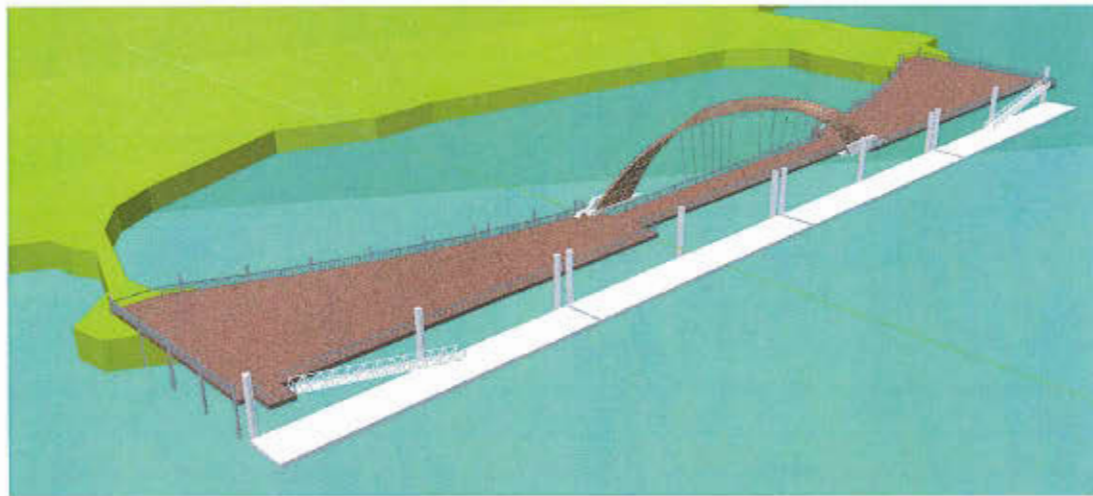
Imperial Landing Float (Current Location)



(Option 1) New 600'-0" Breakwater Floating Dock (example photo shown below)



Option 2– Permanent Legacy Pier and Float at Garry Point Park



Option 3 – Single Pier Head and New Breakwater Float located on City's Waterlot

