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# TECHNICAL MEMORANDUM

**Date:** 2025-Jul-25 **File No.:** 241207  
**To:** Jason Brake **From:** Doug Power, P.Eng.  
Manager of Infrastructure Support DTI Sr. Eng.  
**Subject:** Supplement to 2024 Inspection Report - NL DTI Wharf at Red Bay (Final)  
**Rev:** 00

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## 1. BACKGROUND

In July of 2024 at the request of Newfoundland and Labrador Department of Transportation and Infrastructure (NL DTI) Harbourside Engineering Consultants (Harbourside) were requested to complete an inspection of the Provincial Wharf at Red Bay. Following the inspection a report was prepared and submitted to NL DTI.

In July 2025 Harbourside was requested to review additional 2024 underwater inspection video gathered using a ROV which had not been previously available and provide additional commentary on the condition of the existing wharf and estimated cost associated with demolition and removal.

## 2. CURRENT CONDITION

The ROV inspection was limited to just the perimeter of the wharf with no access gained to inspect the condition of the piling and structural components beneath the wharf. The water clarity at time of the ROV inspection was poor and the inspection was not informative in comparison to underwater inspection work typically completed by divers who can remove kelp and growth from piles documenting and describing what they are seeing with their hands-on inspection.

The exact age of the provincial wharf at Red Bay is unknown. It is believed the original construction could date back to the 1950's making the structure more than 65 years old. Wood used in the construction of the wharf was creosote treated. The design service life of creosote treated wood construction in a saltwater marine environment is generally predicted to be approximately 40 - 50 years with the Red Bay wharf now being well beyond its expected service life in terms of the material durability. The above water wood components of the wharf were found to be in poor to very poor condition during the 2024 inspection and are documented in the inspection report. There are broken or buckling piles which have led to the wharf dropping on both the northwest and southwest corners as documented in the 2024 report. Given the age and condition, we believe that it would be unfeasible to repair or rehabilitate the wharf.

### 3. DEMOLITION AND REMOVAL

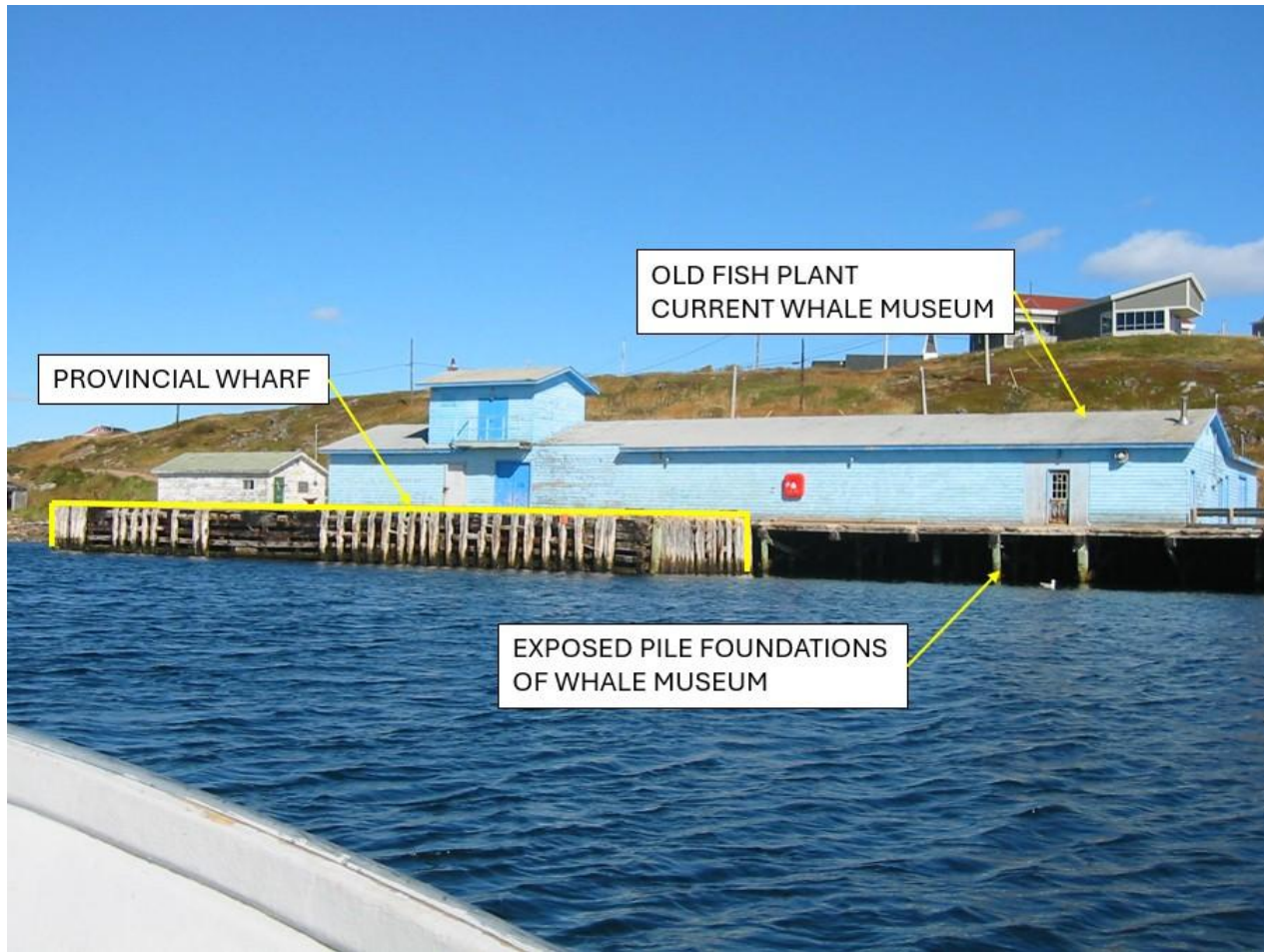
It is anticipated that demolition would likely have to be completed from a barge with the demolition materials transported to land as the structure is demolished. Temporary infill to gain access to the wharf is also possible however water depths at the site are approximately 10 meters along the 30-meter berthing face of the structure which would require significant rock fill volumes if an infill approach was employed.

If the structure was removed the creosote treated waste wood will have to be tested and disposed off in accordance with the provincial guidance document for treated waste wood disposal. It is possible that the waste wood would have to be disposed of at one of the Provincial Waste Management Facilities on the Island able to accommodate hazardous waste. The nearest would be the Wild Cove landfill used by the City of Corner Brook.

Based on our past project experience we estimate a probable cost of \$750,000 to \$1,000,000 to remove the existing structure.

Underwater diving inspection should be completed as part of engineering efforts associated with planning for the removal of the Provincial wharf to ensure sure the foundations of both the Whale Museum and the wharf are well understood prior to calling a tender for removal.

As per our 2024 memo we emphasize that the Provincial wharf does play a role in protecting the piled foundations of the wharf which supports Right Whale Exhibit Museum on the upland side from sea ice loading. If the Provincial Wharf is removed additional construction measures will be required to protect the piled foundations beneath the Right Whale Museum possibly involving reconstruction of a narrower wharf in the footprint of the existing Provincial wharf or driving fender piles around the remaining perimeter to shelter the foundations of the Whale Museum Building from ice loading. We have provided below a picture shared from 2006 when the foundations of the Whale Museum were partially exposed to the south of the Provincial wharf.



#### 4. CLOSURE

If you have any questions or comments regarding the contents of the memo or if you require anything further, please do not hesitate to contact the undersigned at your convenience.

Kind Regards,

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