

Routine Thrice-yearly Inspection Report #9

Hopkins Landing Port

Date on Site: April 11th, 2023 Report Submitted: May 29, 2023

SUBMITTED TO:

Sunshine Coast Regional District

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SUBMITTED BY:

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1. INTRODUCTION

On November April 11th, 2023 Summerhill Fine Homes (SFH) attended the Hopkins Landing Marine Facility located in Gibsons, B.C. to complete a thrice-yearly inspection and maintenance visit under General Service Contract #18 354 with the Sunshine Coast Regional District (SCRD). The inspectors were Jake Stanley Charlie Durrant. The site was visually inspected for any signs of deficiency or apparent public safety risk. The observations, actions and recommendations documented in this report are intended for the use of SCRD staff to prioritize and plan future maintenance activities and capital upgrades.

1.1. Description of Structure

The facility consists of a timber approach and narrow wharf head with timber decking extending in an east direction from shore. From about halfway down the approach on the north side there is a finger with a gangway accessing a float extending parallel to the approach that is restrained by one pile well.

1.2. Scope of Work

The scope of the inspection included conducting a visual assessment of all the structural and non-structural components of the port above the waterline at the time of inspection. In addition to the regular thrice annual inspection, extra maintenance work was completed as detailed in Section 3 of this report.

1.3. Limitations

Summerhill strives to ensure the completeness and accuracy of this report within the limitations of a visual inspection. This report <u>is not however intended</u> to provide assessment of the structural integrity or assurance of the public safety of the port location. Refer to engineering reports for further information regarding structural condition assessment.

2. REPORT

2.1. Approach & Wharf Head

2.1.1. **Railings**

The railings are comprised of dimensional un-painted canted wood railings and mid-level guards supported by painted 89x89 wood posts which are bolted through the outside stringers and curb rails.

Observations: Deficiencies noted below:

• 2 handrail posts on wharf head were repaired during round 9, (As per January 2021 Report) due to cracking and rot, full replacement of posts in at least 2 or locations will be expected within a year. (Continue to Monitor at future inspections)

2.1.2. **Deck**

The decking on the approach is comprised of 75x305 treated wood decking and stringers and cross beams supported by 241x305 pile caps, and timber bearing piles.

Observations:

2 deck boards on the approach were replaced during round 9 (safety concern)





Before After





Before After

- 2 additional deck boards on approach require replacement in 1-2 years.
- Nails were set during round 9 per contract.

2.1.3. Bullrails/Curb Rails

The bullrails/curb rails on the approach and wharf head are treated timber bolted through the timber decking installed on riser blocks.

Observations: Deficiencies noted below:

- (From previous inspection April 2019) Damaged near corner of the approach where it meets the gangway.
 - o Condition stable, continue to monitor at future inspections.
- (From previous inspection April 2019) Curb rail buried under gravel deposits at the approach is showing significant rot. Recommend replacement of 16' 4x6.
 - Curb rail on approach was replaced during round 9.
- Debris and vegetation were removed around approach.
- Curb should be installed by MOTI to divert water and debris and stop from flowing onto the approach.





Before After





After After

- (From Previous Inspection November 2021) Several other curb rails are showing signs of cracking and rotting.
 - Condition stable, continue to monitor at future inspections.





2.1.4. Bents (Piles, Caps, Cross-Braces)

Timber piles caps bearing above timber piles, extends beyond the approach ramp to the south.

Timber cross braces of various sizes are generally bolted through the top and bottom of the timber piles in Rows D & E. 2 braces per Bent in opposing directions. Lateral cross braces bolted through adjacent Bents piles located periodically along the approach.

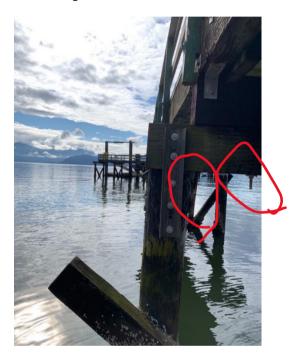
Observations: Dock requires major work, timber members appear to be degrading.

• **Bent 1** Log jammed under stringer, appears to not be properly supported.





- Bent 3 (From Previous inspection 2019) Recommend adding stainless steel banding at the top of pile *3D (no photo)
 - No action, condition stable, continue to monitor at future inspections.
- **Bent 4** (From previous inspection round) Concrete Pile 4D is cracked and warn, continue to monitor, consider future replacement.
- **Bent 5** (From previous inspection February 2020) Crack noted on pile *5E where cross brace bolts through.
 - Cap not fully bearing on pile *5E
- **Bent 9** (From previous inspection February 2020) Cross brace split at connection to pile 9E, recommend adding stainless steel strap. Monitor at future inspections.
 - Concrete Pile 9E leaning to the east



- Rusted Bolt hanging down 14", should be cut off to prevent hazard.
- Bent 16
 - Pile cap cracked on top and appeared to be degrading.
- Bent 18 As per January 2021 report, Pile cap on Bent 18E requires shims added to top of pile.
- Bent 19 (As per January 2021 Report), Cross brace bolt is damaged on bent *19E.
 - Recommend bolt replacement next inspection round.
- **Bent 20** Damage to underside of pile cap. (Monitor) (From previous inspection February 2020) Missing cross brace at Bent 19
- Bent 22 (As per previous inspection May 2021) Cross brace at bent 22D beginning to rot.
 - o Condition appeared stable, continue to monitor at future inspections.
- **Bent 23 & 24** (from Previous Inspction Nov 2021) Piles *23d & *24D both need cross brace bolts replaced soon. (3/4" x 24" + 2 timber washers +4 bolts) x3
- **Bent 27** (From previous inspection September 2019) Some deterioration noted on cross braces at bent 27, monitor at future inspections

- **Bent 28** (As per January 2021 report), Piles 28* F & D cross brace bolts will also need replacing soon. Pile 28A has a large opening requiring a large aluminum cap to prevent further rot.
- North Dolphin Pile has major crack in cap.
 - Monitor at future inspections.
- (From previous inspection November 2021) South Dolphin Pile group has a frayed wire, potentially hazardous to boats/swimmers.
 - o Recommended to remove wire from dolphin pile
- **Bent 28** (From Previous Inspection January 2021) Fender Pile 28E Snapped in half. Monitor at future inspections, recommend future replacement.

2.1.5. Lighting

Three light posts, 2 located along the approach, one at Bent 3 and one at Bent 18

Observations: Deficiencies noted below:

- (From previous inspection April 2019) Light standard bracket is heavily corroded above Pile 3D
 - No action, continue to monitor, recommend eventual replacement of both light standard support brackets

2.1.6. <u>Life Ring</u>

Observations:

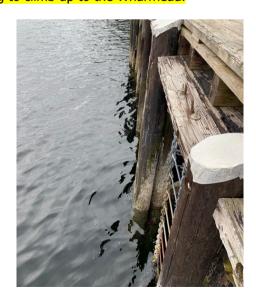
 Life ring has been tampered with and requires replacing. Throw bag is damaged due to use.

<u>Ladder</u>

Metal ladder secured at the top and bottom located at the east end of wharf head and one on the west end of the float.

Observations:

• (From previous inspection) Generally, in good condition although due to design, it is very challenging to climb up to the Wharfhead.



• Safety square added during round 9 to identify the ladder location.





2.1.7. <u>Derrick</u>

No derrick crane located at this port location

2.1.8. <u>Signage</u>

Observations: Deficiencies noted below:

• Signage to be upgraded, SCRD to provide for install at future inspection.

2.2. Gangways

2.2.1. Railings & Frame

The aluminum gangway railings are trusses comprised of HSS sections

Observations: Generally in good condition



2.2.2. Deck

The decking is comprised of aluminum grating welded to the aluminum frame

Observations: Generally, in excellent condition

2.2.3. Hinge and Wheels

Steel hinge connection top, steel roller on landing pad and retained by steel angle

Observations: Generally in good condition

Other notes:

- (from previous inspection Nov 2021) Sign above gangway rotting and cracked, likely to fall down during a storm could be hazardous. Recommend removal.
- (From previous Inspection Novemebr 2021) Bolts under upper gangway loose.
 - o Recommend tightening at medium tide with calm weather. (deferred)

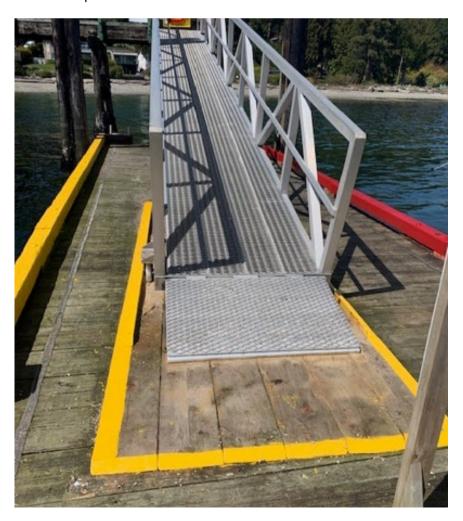
2.3. Floats

2.3.1. Deck Condition

Deck boards are 52x292 installed on float timber framing members.

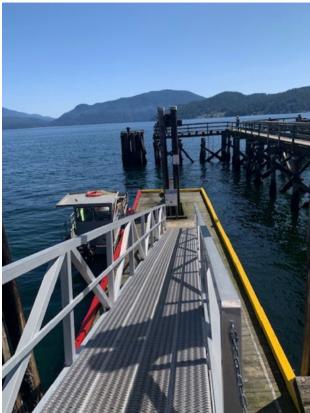
Observations: Generally in fair condition.

• New transition ramp and landing pad installed during round 8 appears to be holding up well.



Painting completed during, as per contract.





2.3.2. Bullrail and Cleats

Bullrails are 89x140 timber on risers bolted through to flanges. Generally in poor condition.

Observations: Deficiencies noted below:

• (From previous inspection April 2019) 6 out of the 13 Bull rails are all loose to varying degrees. Unable to tighten the existing bolts as they are through bolted into the flanges.

2.3.3. Pile Wells, Mooring Piles and Wear Strips

1 pile well on the float, containing mooring pile groups tied together by steel wires at the top. Additional piles installed on either side of the float near the gangway to stop lateral movement. Piles rub against the fender boards.

Observations: Deficiencies noted below:

- Pile well plastic wear strips generally in good condition and in place
- Excessive wear noted on mooring piles, no rub strips installed on piles

2.3.4. Fender/Rub Boards

Installed around perimeter of timber float, 38x305 nailed into float framing

Observations:

(Per previous report in May 2021) 10' Section needs replacing. 2x12x 14'
Deferred

2.3.5. Flotation

Observations: Generally in poor condition, deficiencies noted below:

• Float is hinging below the gangway landing. Flotation and substructure should be inspected by divers. Possibly missing flange blocks (like West Bay).

2.3.6. Anti-skid

Grip Strips installed as anti-slip

2.3.7. <u>Signage</u>

Observations:

• (As per previous reports) Temporary moorage signs functioning. Permanent sign instillation waiting on signs from SCRD.

3. CONCLUSION

Based on our visual inspection, the approach and wharf head are generally in acceptable condition from above, however the substructure condition is poor. Structural inspection required. The transition ramp and new landing pad installed in round 8 have already resulted in positive feedback from users.

3.1 Work Update per Approved Change Orders:

Work Item	Description	SCRD Contract Category	Status		
Change	Change Directive 01				

3.2 Additional work completed on site to be billed T&M:

Work	Description	SCRD	Status
Item		Contract	
		Category	
	2 rotten deck boards replaced on approach	Safety	Completed April 2023
	2 handrail posts on wharf head were repaired		
	Curb rail on approach, was replaced		
	Debris and vegetation were removed around approach		

3.3 Recommended work for future visits:

Work Item	Description	SCRD Contract Category	Status
	Curb should be installed by MOTI to divert water and debris and stop from flowing onto the approach.	Safety	
	Crossbrace at 27F &D still requires new bolt	Safety	
	2 more deck boards will need to be replaced in 1-2 years	Safety	
	Consider redesigning ladder.	Safety	
	Life ring has been tampered with and requires replacing.	Safety	