Chanonry Sailing Club

SLIPWAY
UPGRADE

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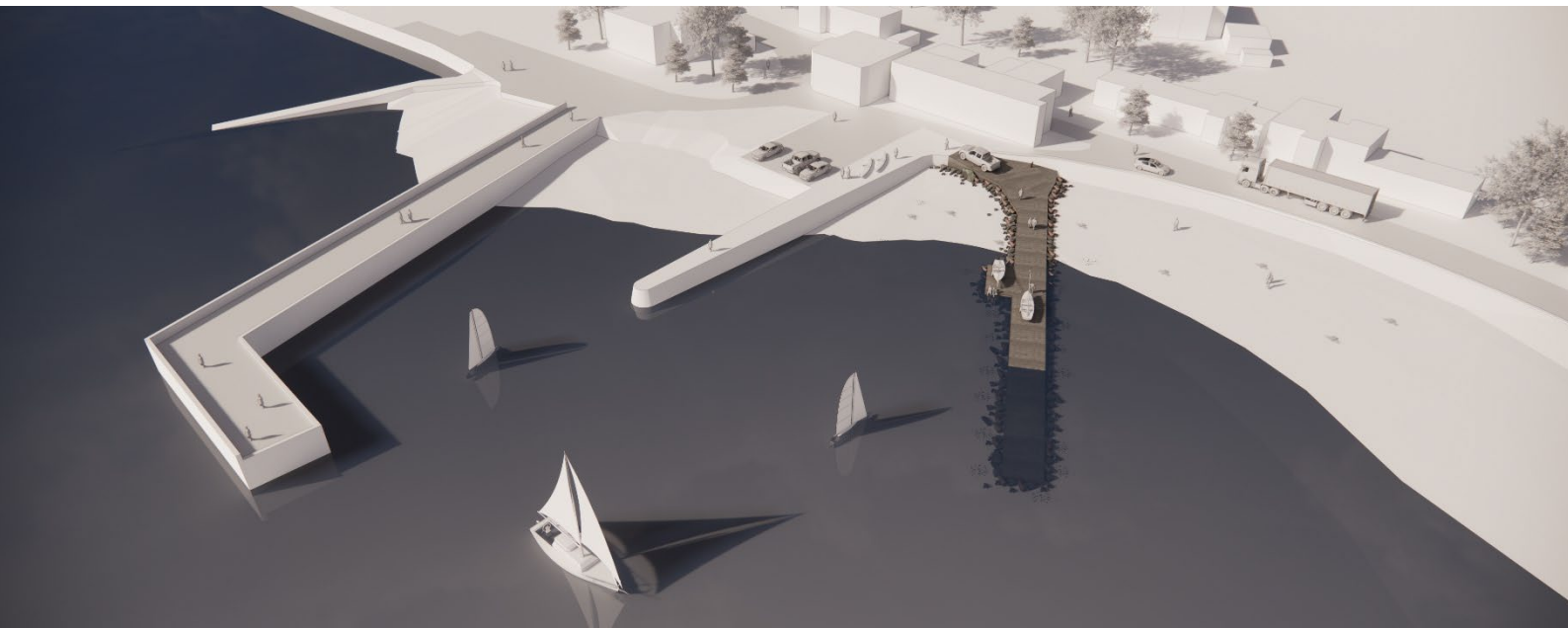


INTRODUCTION

This report has been compiled to provide a detailed assessment of the slipway at Chanonry Sailing Club. The primary objective is to identify areas where maintenance and improvements are necessary in order that the improved facility will cater for a mixed user group.

Situated at The Harbour, St Andrews Walk, Fortrose, IV10 8TP, the slipway serves as a critical point of access for both club members and visiting vessels.

The report considers the current state of the slipway structure, the access and turning areas, the integrity of the slipway surface, and its exposure to environmental factors. Recommendations are provided to ensure the facility remains safe, dependable, and continuously accessible.

Wild swimming - Sailing - RNLI- Fishing- Access For All

Scope Summary

- **Phase One output.** The Phase One outputs will be those listed in your proposal: *A survey of the existing site to include a topographical survey (including setting up area)*

- an engineer's inspection report following a site visit

- a report on the environmental impact of any proposed action

- an architect's report following a survey and site visits

- These outputs should offer clear advice to the CSC Board on: the current condition of the slipway

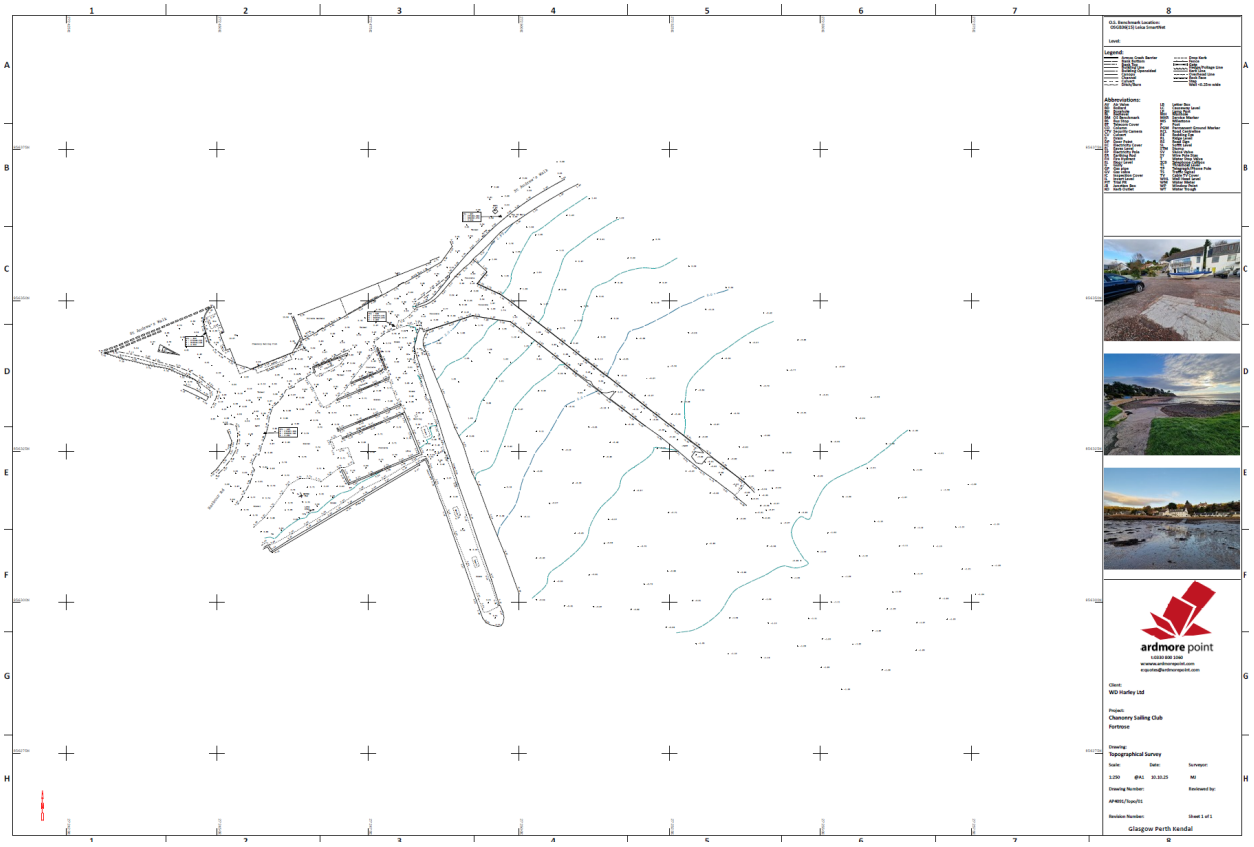
- proposals for action to renovate, repair and/or enhance the slipway

- a realistic sense of the likely scope of the work involved and cost

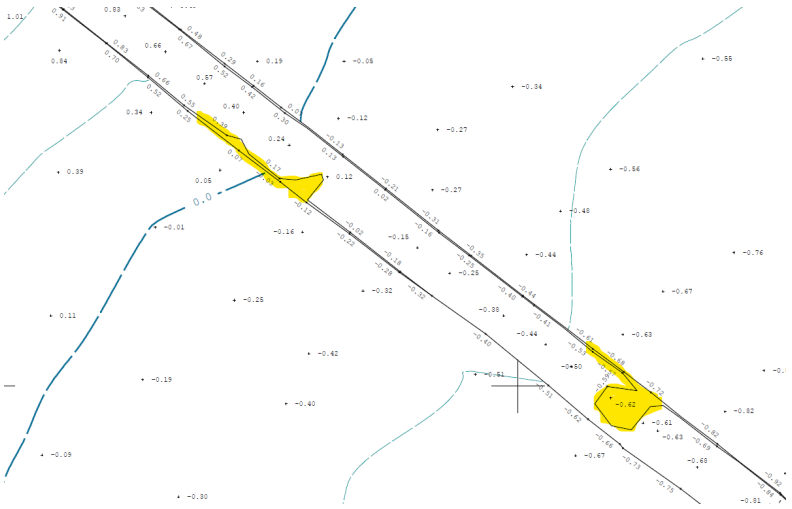
(The Board understands that actual costs cannot be known until the project is put out to tender and contractors have been appointed to deliver the works. But it will wish to be guided by your better knowledge of the market and the likely costs.)

EXISTING CONDITIONS

Ardmore Point carried out a topographical survey picking up the area required for the report _ DWG No – AP4091/Topo.01 – this is on a digital format and was shared with the engineer to prepare his condition report also attached.



The Survey above picked up the areas of the slipway with considerable erosion to be monitored further, shown below.



Slipway Description and Accessibility

The slipway is constructed from concrete, extending approximately 50 metres in length and measuring 2.6 metres in width. Access is notably restricted due to the limited available space, which presents significant challenges for manoeuvring vehicles. The turning area at the head of the slipway is particularly confined, making it difficult for drivers to align vehicles and trailers during launching or recovery operations. The steep gradient of the slipway further adds to the complexity of use. Visible signs of wear are present, including surface pitting and loose aggregate, both of which contribute to reduced traction and increase the risk of slipping.

Environmental Considerations and Impact on Use

Environmental factors have a pronounced effect on the usability of the slipway. Shifting tides and frequent accumulations of sand regularly alter the approach, making access unpredictable. During periods of low tide, the slipway is more exposed to adverse weather conditions, and sand deposits can further restrict entry and exit. These circumstances may intermittently limit access to the slipway, creating difficulties for users, especially those who are inexperienced or are operating larger vessels.

For Structural assessment Refer To Engineering report _ ICB/14521 -dated 17th Feb 2026.

Ecology and Special Area of Conservation

The Moray Firth is recognised for its ecological importance, holding designations as both a Special Area of Conservation (SAC) and a Special Protection Area (SPA). These statuses highlight its role in safeguarding habitats for a diverse range of marine species, including dolphins, seals, and an array of seabirds. The presence of invasive species, such as Slipper Limpets, presents challenges for conservation efforts, as these organisms can disrupt native ecosystems and alter the balance of marine life.

To mitigate potential environmental impacts, the project will adhere to carefully developed method statements, ensuring that all activities consider the unique characteristics of the Firth and its protected communities. Rigorous attention will be paid to material specifications, selecting options that minimise ecological disturbance and prevent the introduction or spread of non-native species. Furthermore, obtaining all necessary permissions and consents from relevant authorities is a fundamental step, guaranteeing compliance with environmental regulations and safeguarding both the SAC and SPA designations.

By following these comprehensive procedures, the project not only aims to avoid adverse effects but also supports the ongoing preservation and enhancement of the Moray Firth's natural resources. Collaborative engagement with conservation bodies and local stakeholders will further underpin efforts to maintain biodiversity, promote sustainable use, and ensure the long-term health of the area's marine habitats.

IDENTIFIED ISSUES

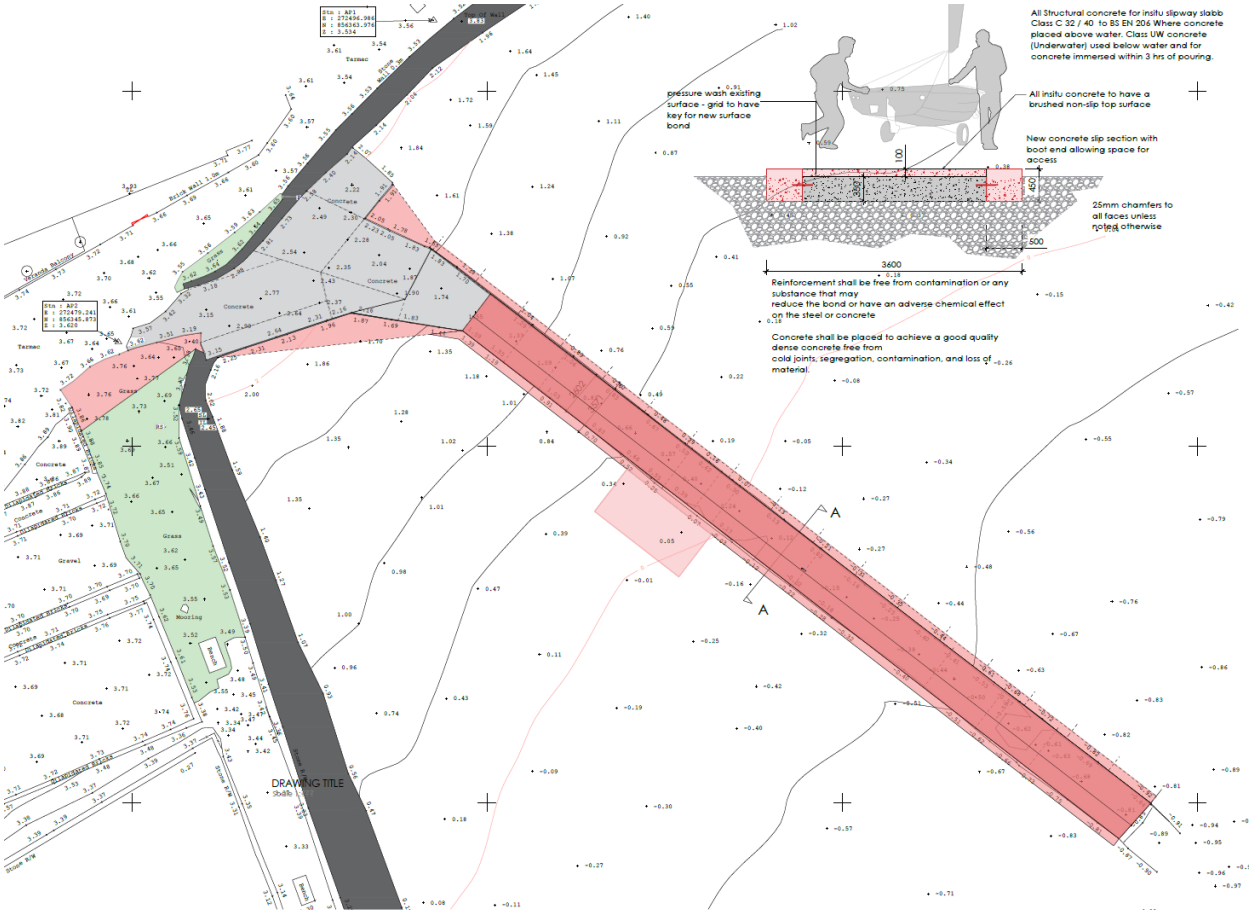
- **Access Constraints:** The route leading to the slipway is narrow, with insufficient space for vehicles and trailers. The constrained turning area at the head of the slipway does not accommodate larger vehicles, making manoeuvres difficult.
- **Surface Spoilage:** The slipway surface shows advanced deterioration, including pitting, worn aggregate, and algae patches. These conditions reduce grip and elevate the risk of slips and falls.
- **Exposure and Sand Accumulation:** The slipway is exposed to shifting tides and frequent sand deposits, which can block access and require regular clearing.
- **Width Limitations:** With a width of 2.6 metres, the slipway is too narrow for safe and comfortable use by wider trailers and boats, especially when simultaneous or two-way passage is needed
- **Moving ground levels expose edges** – allowing edges to be exposed for erosion and under cutting.
- **Ramp tail silted up with moving sand banks** – maintenance required to keep clear.
- **Ecological impact Assessment** - An Ecological Impact Assessment report considers the potential impacts of a proposed new slipway development at Chanory Sailing club on terrestrial and marine habitats and species. The approach to this assessment will based on guidance from the Chartered Institute for Ecology and Environmental Management's (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland (Terrestrial, Freshwater and Coastal). With appropriate method statements, close attention to material specifications and gaining of all necessary permissions we can be confident that the project will have no adverse environmental impacts.
- The orientation results in the west side having less exposure, more erosion on the East face.

Maintenance and Upgrade Requirements

- Widening: Increase the slipway width from 2.6 metres to at least 3.6 metres to enable safer, more efficient use for a variety of vehicles and trailers.
- Resurfacing: Resurface the entire slipway to address surface spoilage and improve grip, thereby reducing accident risks.
- Set Down Points: Introduce designated set down points along the slipway to facilitate temporary holding of boats and equipment, ensuring continuous access for others.

PROPOSED IMPROVEMENTS

- Widen the approach road and entrance to the slipway to enhance vehicle access. This will reduce congestion during peak times and accommodate larger vehicles, ensuring safer and more efficient movement for all users.
- Level and enlarge the turning area at the top of the slipway, making vehicle and trailer alignment easier and safer. Improving this area will minimise the risk of accidents and allow vehicles to manoeuvre more comfortably, especially when handling larger trailers
- Increase the width of the slipway from 2.6 metres to 3.6 metres, providing a safer and more accommodating launch and recovery area for a wider range of craft.
- Resurface the entire slipway with a material designed to enhance grip and resist wear, thereby improving safety and reducing slip risks.
- Install set down points at intervals along the slipway, allowing boats and equipment to be temporarily held without impeding access for other users.
- Implement a regular schedule for the removal of sand build-up and debris to ensure the slipway remains accessible at all tidal states.
- Consider installation of a winch point to aid with recovery of boats



SUMMARY

Slipway Upgrade Rationale

Background and Justification

The slipway at Chanonry Sailing Club plays a vital role in supporting both club activities and providing the wider community with access to the water. However, the current facility faces several challenges: restricted access, deterioration of the surface, vulnerability to environmental conditions, and insufficient width. These issues collectively pose significant risks to safety and hinder efficient operations.

Recommended Improvements

To address these concerns, it is recommended that the slipway be widened to 3.6 metres. Additionally, improvements should be made to the access and turning areas, the entire surface should be fully resurfaced with a grip-enhancing material, and designated set down points should be installed. These upgrades are intended to ensure that the slipway remains safe, fit for its intended purpose, and accessible to all users.

Its worth noting the report and Engineering looked at resurfacing the existing and considered the financial spend to achieve an upgraded existing slipway and a removal and prefabrication unit to be dropped in. Following the core and the Engineers report the upgrade and the additions are the most practical to proceed with based on the Estimate provided. Thus the report rejected a prefab installation and resurface and patch to existing.

Actions Required

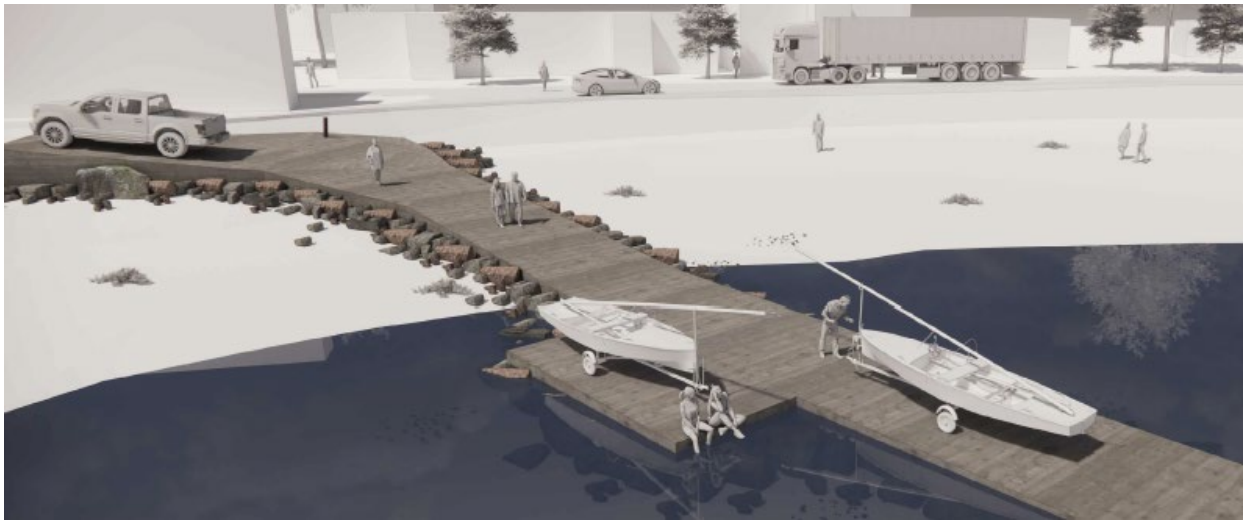
The immediate next steps involve obtaining all necessary permissions, engaging with contractors to carry out thorough technical assessments and secure cost estimates, and seeking financial support or assistance from relevant authorities and stakeholders. By implementing these proposals, the long-term safety and usability of the slipway will be greatly enhanced.

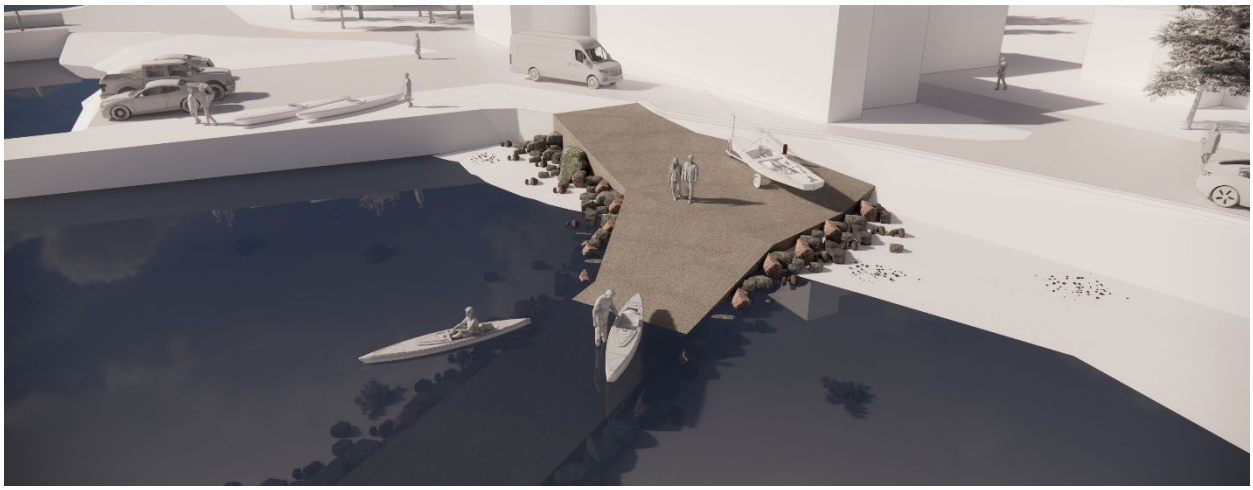
Works Proposed:

1. Prepare existing Surface remove debris and prepare for overlay.
2. Excavate the side of the existing jetty
3. Prepare dowl rods to connect to existing
4. Erect timber shuttering and expansions joints
5. Pour concrete in section as per engineering report and methods statement.
6. Alterations and upgrade entrance slipway access point with new Tar Surface
7. Install new Winch point
8. Remove shuttering once cured
9. Build up material to jetty edge
10. Estimated time scale is 6 weeks works to be carried out in July / August preferred months.

NEXT STEPS

1. Board approval of concept and Layout
2. Produce technical Method statement for upgrade & installation
3. Application for Marine Licence (MMO)
4. Land Owner Consent (Crown Estate)
5. Planning Permission (Local Authority)





ESTIMATE

We have Issued the proposed concept for budget costing to a reputable builder the costs of this were estimated to be as follows ;

MBS MACGREGOR BUILDING SERVICES

ESTIMATE

Date	17.03.26
Valid Until	-
Quote No.	001A
Customer Ref	MW26012

Customer:

-

Quote/Project Description

Budget Costs for Slipway

Description	Line Total
Powerwashing existing concrete	600.00
Excavating & disposal	3,624.00
Steel Reinforcement	3,229.00
Formwork	5,739.00
Winch Point	1,000.00
Concrete Works	17,891.00
Tar Works	7,820.00
Prelims	3,750.00

Special Notes and Instructions

Once signed, please mail or e-mail it to the provided address.

Subtotal	£	43,653.00
Discount	£	-
VAT Rate	%	20.00
VAT	£	8,730.60
Total	**£**	**52,383.60**

Should you have any enquiries concerning this quote, please contact our Head Office on 01877 331243

Please confirm your acceptance of this quote by signing this document

Signature | Print Name | Date

4 Cross Street, Callander, Perthshire, FK17 8EA

Tel: 01877 331243 Email: info@macgregorbuildingservices.co.uk www.macgregorbuildingservices.co.uk

VAT Registration No: 724218160 Registered in Scotland No. 286177

ENGINEERING REPORT

ICB/14521

17th Feb 2026

Mr Graeme Harley

WD Harley Ltd

Ancaster Business Centre

Cross Street
Callander

Dear Graeme,

Proposed Modifications to the Existing Slipway at Chanonary Sailing Club Structural Condition Assessment & Recommendations

Introduction

Balfour Engineering Consultancy was commissioned by WD Harley Ltd to undertake a structural assessment of the existing slipway at Chanonary Sailing Club and to provide guidance on the most suitable method for upgrading the slipway to improve its overall useability and in particular, increase its width, provide a smooth, sound running surface and ensure maximum safety during use.

WD Harley has prepared its own Condition Report which was based on in-situ disruptive investigative work such as excavating down the sides of the existing slipway and taking core samples of the concrete itself.

Extracted photograph of the existing slipway taken from the WD Harley Condition Report

Existing Slipway

Approximately 50m long by 2.6m wide. The concrete has been proven to be 350mm thick and on firm natural beach deposits.

As the slipway is frequently under water and wet, there is algae growth over most of its length, resulting in a slip hazard.

As can be seen from the photograph, the slab is not uniform or homogeneous but instead it consists of worn, open joints, surface deterioration and cracking – refer to the photograph below.

Options for Repair/Upgrading

The ideal solution would be to completely replace the existing slipway with a new structure which would be designed to accommodate all the requirements of the sailing club. However, the financial resources do not exist to provide this option. Therefore, an alternative has to be considered.

The site investigation work carried out by WD Harley provided evidence that the existing concrete, although in a poor aesthetic condition, is still of sound construction and rests of a firm sub-base. There are no obvious

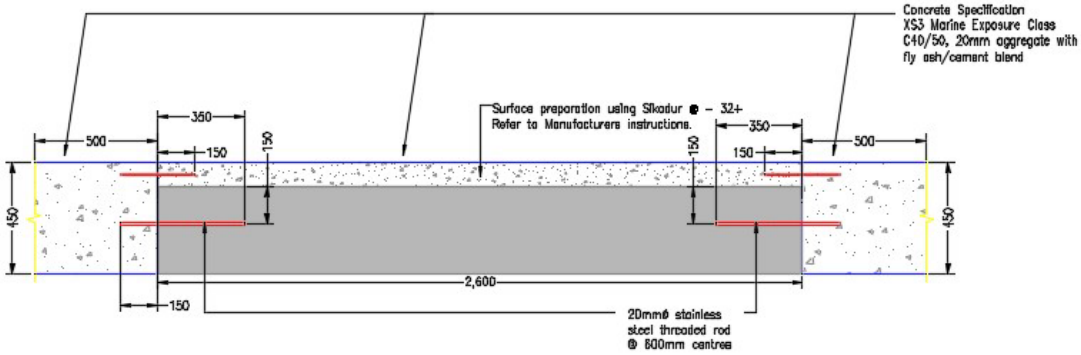
signs of movement or any suggestion that the slipway is about to be 'washed away', therefore, the most cost effective solution would be to retain what is already there and simply upgrade.

There are two main requirements for the upgrading work.

1. Increase the width of the slipway
2. Provide a durable and level running surface

Increasing the width of the slipway can be achieved by adding more concrete to one or both sides of it. The favoured option is to add to both sides, increasing each side by 500mm to give an overall slipway width of 3.6m.

Improving the surface finish can be achieved by overlaying with a new concrete slab, bonded to the existing, power washed and primed surface. Construction details are provided below.



Typical Section Through Slipway
1:20

The above drawing provides a new 100mm concrete surface on top of the existing and this is tied to the new concrete on either side. Durability is of the utmost importance in marine environments; hence the dowel

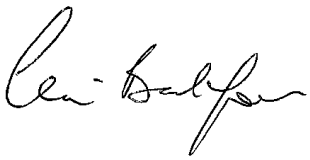
bars are stainless steel and the concrete is specified to suit the marine environment. It would be expected that the surface would have a brushed finish and not a smooth one.

Conclusions

The existing slipway is not currently fit for purpose and therefore, needs to be upgraded. The existing concrete is still of a sound condition such that it can be retained. On this basis, new concrete can be added to each side and on top of the existing, which will provide the additional width and improved running surface.

I trust the foregoing to be sufficient for your current requirements but please do not hesitate to contact me should you have any queries.

Yours Sincerely



Iain Balfour