

Note

Shetland Islands Council
Foula Ferry Terminal Dredging
Best Practicable Environmental Option
Assessment for Foula Harbour Dredge
Material

Project No.: UKNO0398
Document No.: 1229389051
Version 1
Revision 1

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1 Introduction

This note presents an assessment of the Best Practicable Environmental Option (BPEO) for the disposal of dredge material arising from the proposed emergency maintenance dredging of Foula Harbour at Foula Island in the Shetland Archipelago.

Shetland Islands Council is seeking a Marine Licence for emergency maintenance dredging within Foula Harbour to enable the passenger ferry to access the ferry terminal.

The estimated dredging volume is 8000wt and dredging will not exceed 1m in depth.

This BPEO is submitted together with an application for disposal at sea to Marine Scotland Licensing and Operations Team, as required by the Marine (Scotland) 2010 Act.

The dredge area is shown in Appendix 1.

2 Material to be disposed

The proposed dredging is within the inner harbour (to be dredged to 2.1m below CD) and outer harbour (to be dredged to 3m below CD).

Surface sediment samples were taken from three locations within the harbour. The number of sample locations were agreed in advance with Marine Scotland.

Samples were tested by James Hutton Ltd for contaminants. No exceedances of Cefas Action Level 1 were recorded. Full sample results are provided in support of the Marine Licence application.

The material is comprised of sand with some gravel and very limited silt.

Dredging will be undertaken using a backhoe dredger, which is limited to the size of Foula harbour

3 Options for disposal of dredged material

Foula has a land area of 12.65km² and is one of the UK's most remote permanently inhabited islands, located over 20km from the Mainland Shetland and over 170km from the Scottish mainland. As a result, the options for disposal of dredge material are very limited.

No beneficial uses on Foula have been identified and transporting the dredged material from Foula Harbour to onshore locations on Mainland Shetland or the Scottish mainland (should beneficial uses be available) are is not viable.

Sediment sample analysis has demonstrated that the material to be dredged is suitable for disposal at sea.

Disposal at sea is considered to be the only viable option. The Foula offshore disposal site (FI100) is shown in Figure 1. At the closest point, the disposal site is 900m to the south of the dredge area.

The site is currently classified as disused; however this classification is due to lack of use rather than environmental concerns or capacity constraints.

Figure 1 (Foula disposal site FI 100)



(Source: Marine Scotland National Marine Plan Interactive)

An underwater video survey using a Remotely Operated Vehicle (ROV) was undertaken in September to determine the bed material at the disposal site. This comprised of video survey along a transect running north to south in the upper half of the dredge disposal zone..

The ROV survey indicated the sea bed in this area is predominantly hard rock, with small pockets of coarse sediments located within depressions in the rock bed.

4 Environmental considerations

Both the dredge area and Foula disposal site are located within the Foula Special Protection Area (SPA), which is designated for seabirds.

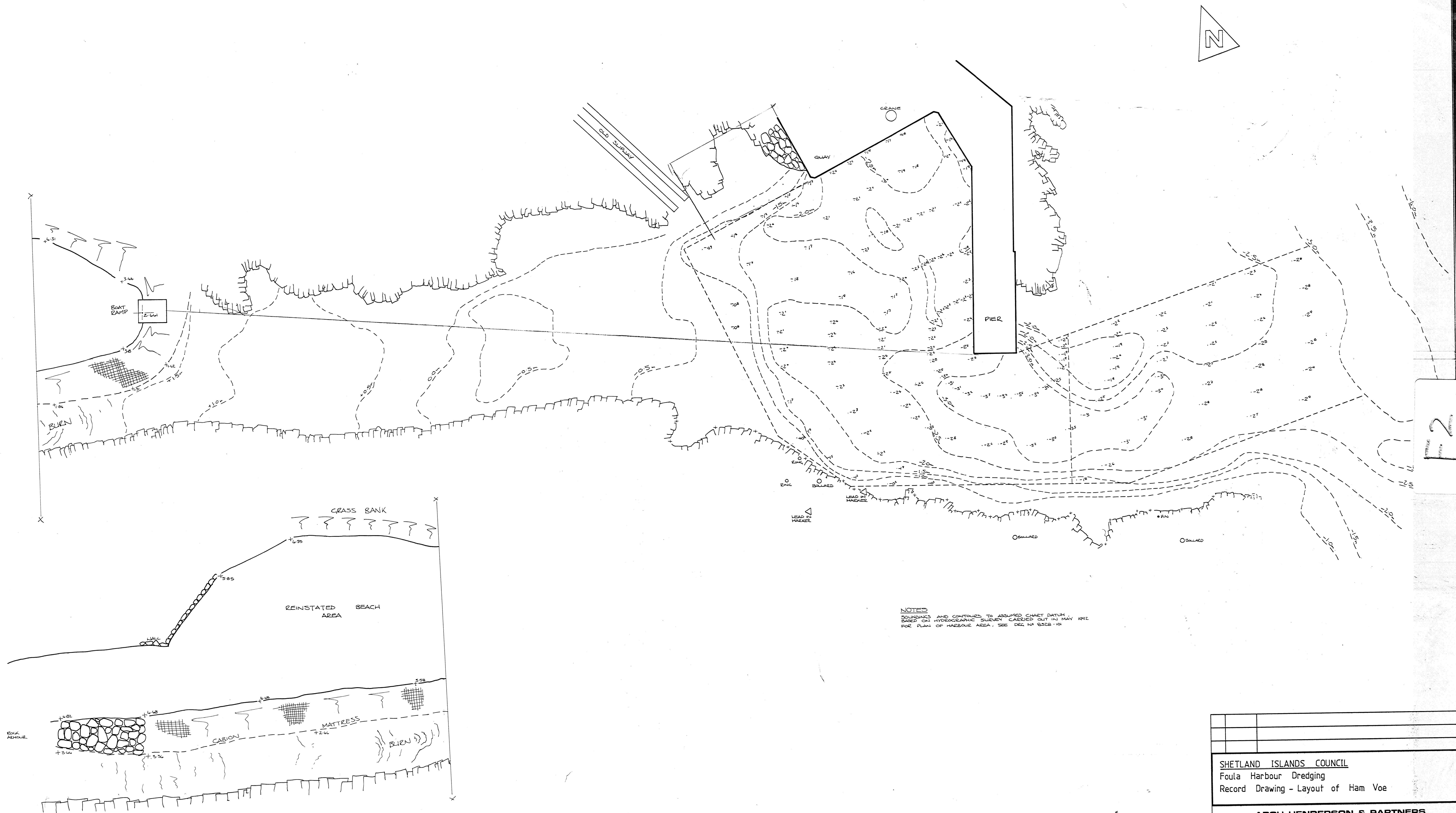
The dredging and disposal will be undertaken using a single vessel for a period of approximately one to two weeks, which is not considered to be a significant change in baseline conditions. As a result no adverse effects on the integrity of the SPA are predicted.

Foula is designated as a Site of Special Scientific Interest (SSSI). Both the cliffs and moorland provide nesting sites for nationally and internationally important seabirds. The site is also notified for nationally important blanket bog which supports a range of vegetation. Due to the nature and location of the proposed dredging works and offshore disposal, and the limited extent and duration of vessel activity required, no impacts on SSSI features are predicted.

5 Conclusion

Due to the location, and the type and volume of material to be dredged, disposal of dredged material at Foula offshore disposal site is considered to be the BPEO.

6 Appendix A



SHETLAND ISLANDS COUNCIL
 Foulie Harbour Dredging
 Record Drawing - Layout of Ham Voe

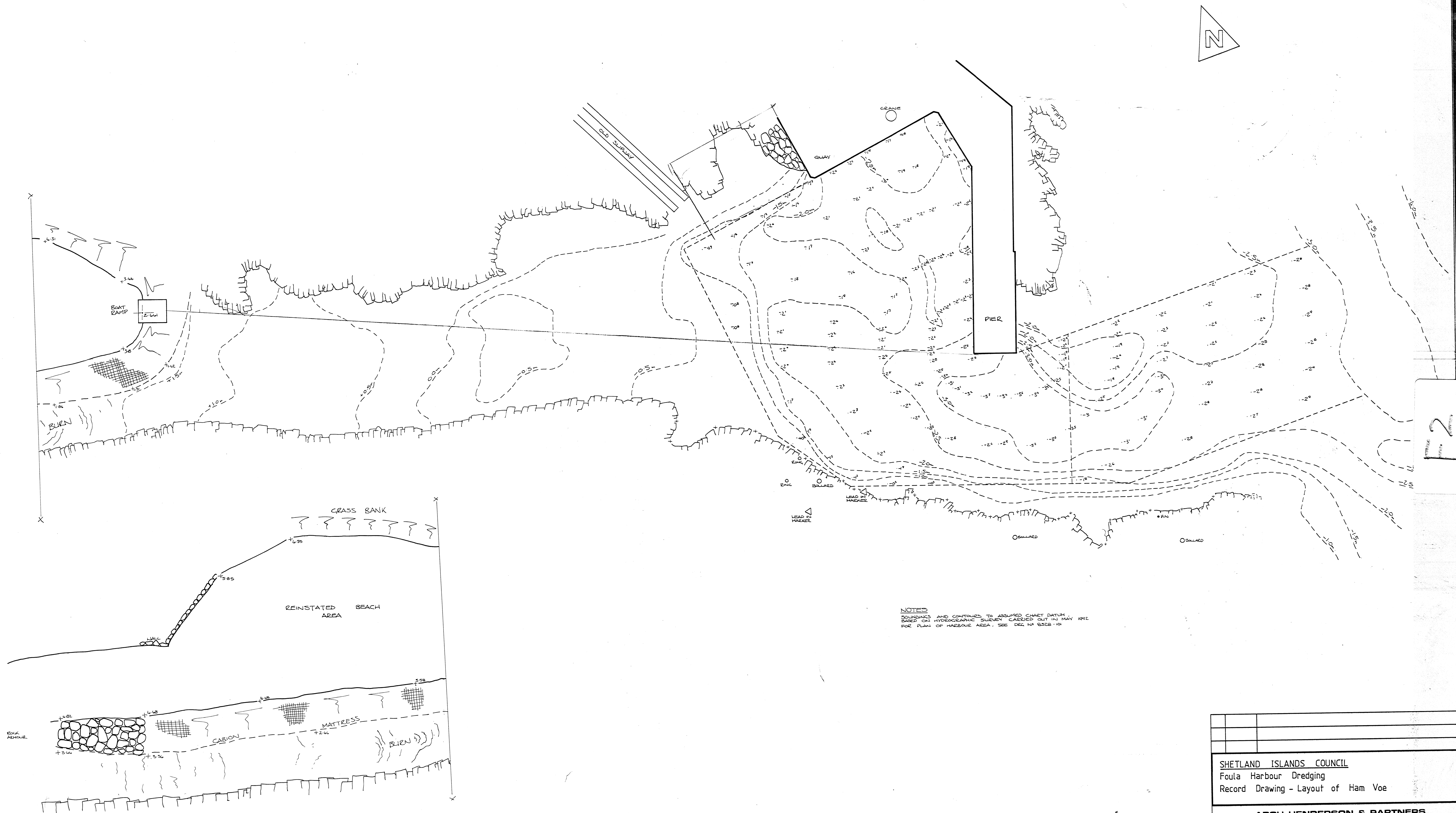
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