

SHETLAND ISLAND COUNCIL

Shetland Inter-Island Transport Study

Piers and Harbours - Existing Assets

WORKING PAPER

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Project Director



Gordon Rankine



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OVERVIEW

Introduction

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Vessels



BECKETT RANKINE
Marine Consulting Engineers



INTRODUCTION

The Shetland Inter Island Ferry Service operates 11 vessels across 14 routes served by 17 ferry terminals. These provide a lifeline link between mainland Shetland and its 9 islands. With over 70,000 crossings, the ferry service carries 750,000 passengers and 350,000 vehicles annually.

This working paper has been prepared by Beckett Rankine as part of the Shetland Inter-Island Transport Study (SITS), following our visit to Shetland on 23rd - 25th September 2015 together with The Maritime Group. The objective is to prepare a high level review of the existing ferry terminal facilities to be used to inform the team workshop on 23rd November which will address issues relating to Shetland Islands transportation.

The working paper focuses on the ferry terminals, 13 of which serve RoRo vessels with linkspans bridge connections to the shore.

The first section presents a high level summary of the present concept, followed by a high level overview of the facilities at each of the 17 terminals. This includes photographs, charts and plans assembled and presented on a single page for each terminal, for ease of reference as the project develops further..

Finally a summary table lists pertinent facts for the terminals.

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It is intended that this working paper is printed at A3 size.

ROUTES

Route Terminals	Crossing Time (Minutes)	Distance (N Miles sailed)	Vessels	Passengers/ Cars/Trucks
Yell Route			Daggri Dagalien	144 / 31 / 6
Toft to Ulsta	20	3.0		
Bluemull Route			Bigga Geira	96 / 14 / 2 96 / 10 / 1
Gutcher to Belmont	10	1.1		
Gutcher to Hamars Ness	30	3.5		
Belmont to Hamars Ness	30	4.0		
Whalsay			Linga Hendra	95 / 18 / 1 95 / 12 / 1
Laxo to Symbister	30	5.0		
Vidlin to Symbister	45	7.0		
Skerries			Filla	30 / 8 / 1
Vidlin to Skerries	90	14.0		
Symbister to Skerries	75	12.0		
Lerwick to Skerries	150	23		
Bressay			Leirna	124 / 19 / 1
Lerwick to Bressay	7	0.6		
Foula (BK Marine)			New Advance	12 / 1 / -
Walls to Foula	120	16.5		
Papa Stour			Snolda	30 / 6 / -
West Burrafirth to Papa Stour	40	5.0		
Fair Isle			Good Shepherd V	12 / 1 or 2 / -
Fair Isle to Grutness	160	25.0		
Fair Isle to Lerwick	300	43.0		
Standby Vessel			Fivla	95 / 10 / 1



Linkspans -1



Most of the routes are served by RoRo ferries with linkspan bridges at the berths for loading and unloading vehicles. The linkspans are standard across the terminals and are essentially in two sizes. At Ulsta (below) the newer, larger linkspan can be seen alongside the support structure for the older, smaller linkspan that has been removed.

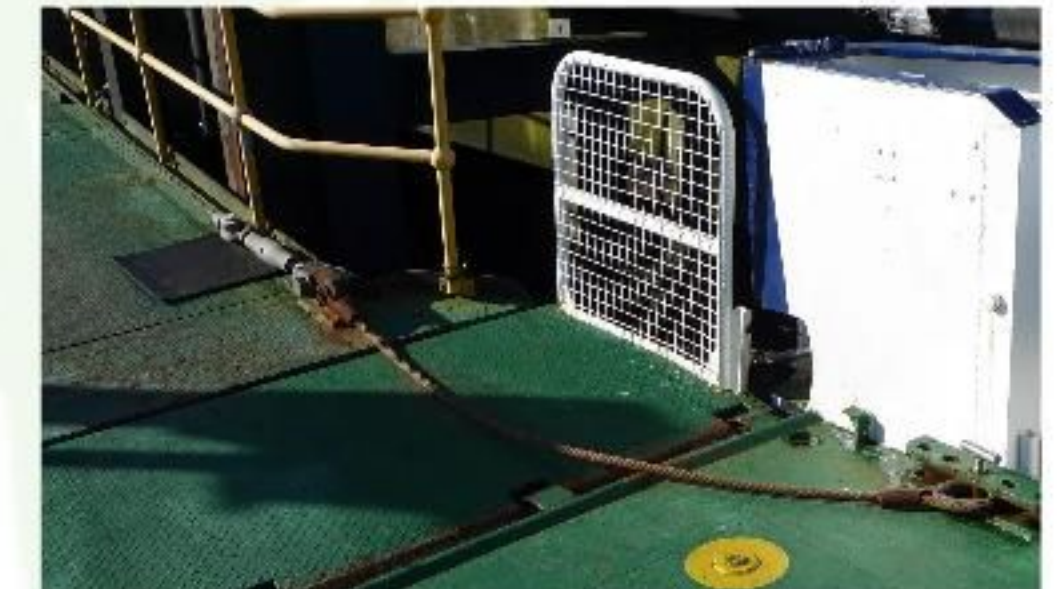


List of Terminals

1. Toft	Large Linkspan
2. Ulsta	Large Linkspan
3. Gutcher	Small Linkspan
4. Belmont	Small Linkspan
5. Hamars Ness	Large Linkspan
6. Laxo	Small Linkspan
7. Vidlin	Small Linkspan
8. Symbister	Small Linkspan
9. Skerries	Small Linkspan
10. Lerwick	Small Linkspan
11. Bressay	Small Linkspan
12. Walls	Non-linkspan ferries
13. Foula	Non-linkspan ferries
14. West Burrafirth	Small Linkspan
15. Papa Stour	Small Linkspan
16. Grutness	Non-linkspan ferries
17. Fair Isle	Non-linkspan ferries

The larger linkspans have two traffic lanes with segregated foot passenger access, whereas the smaller linkspans have a single lane with non-segregated foot passenger access.

Safety cables have been installed to prevent the linkspan dropping catastrophically into the water should the motion of the vessel cause the linkspan and vessel to separate.

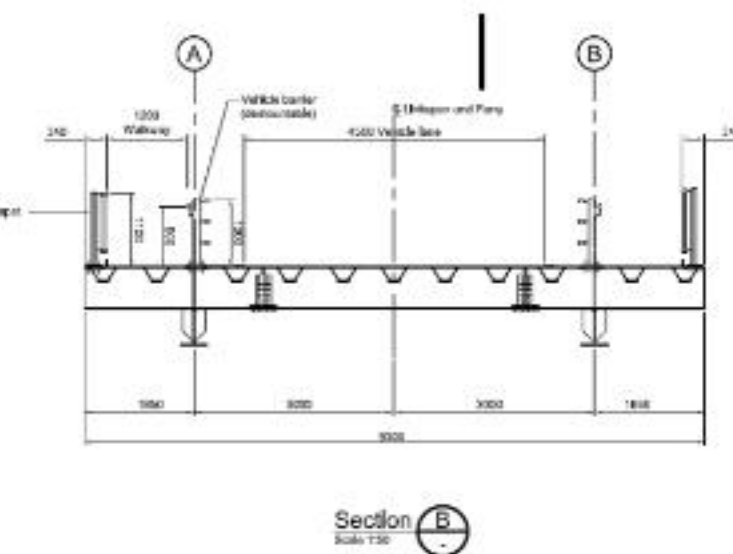
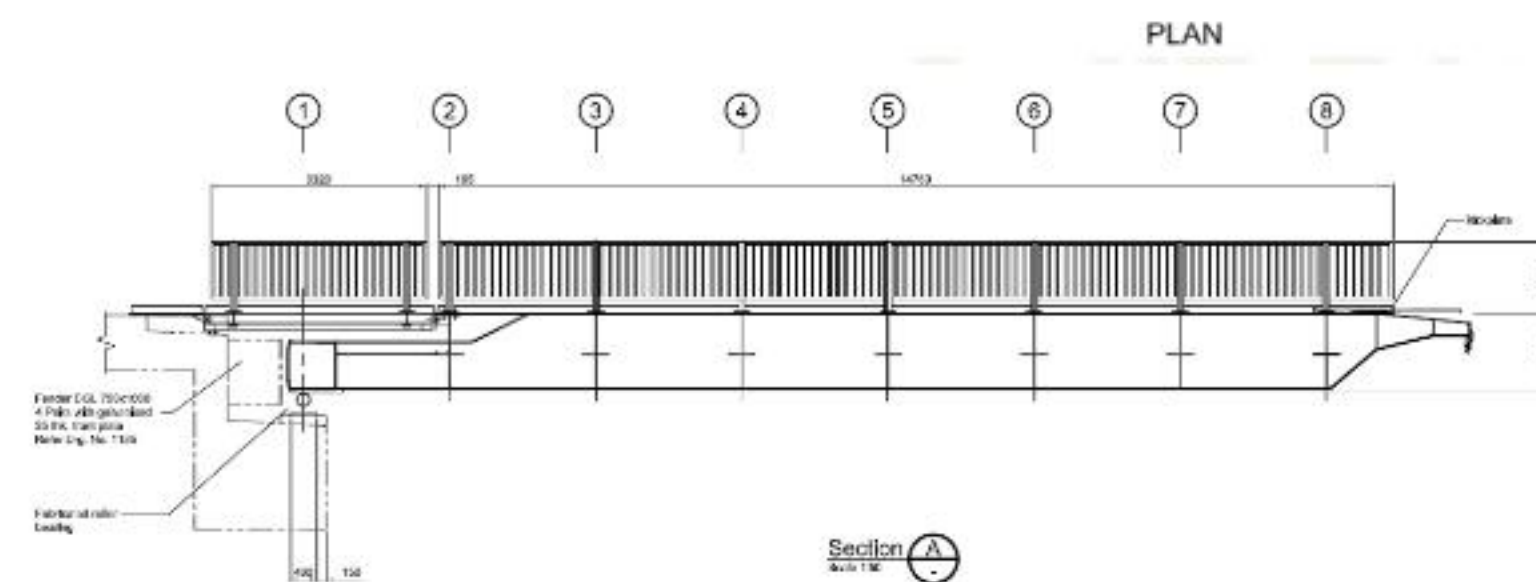
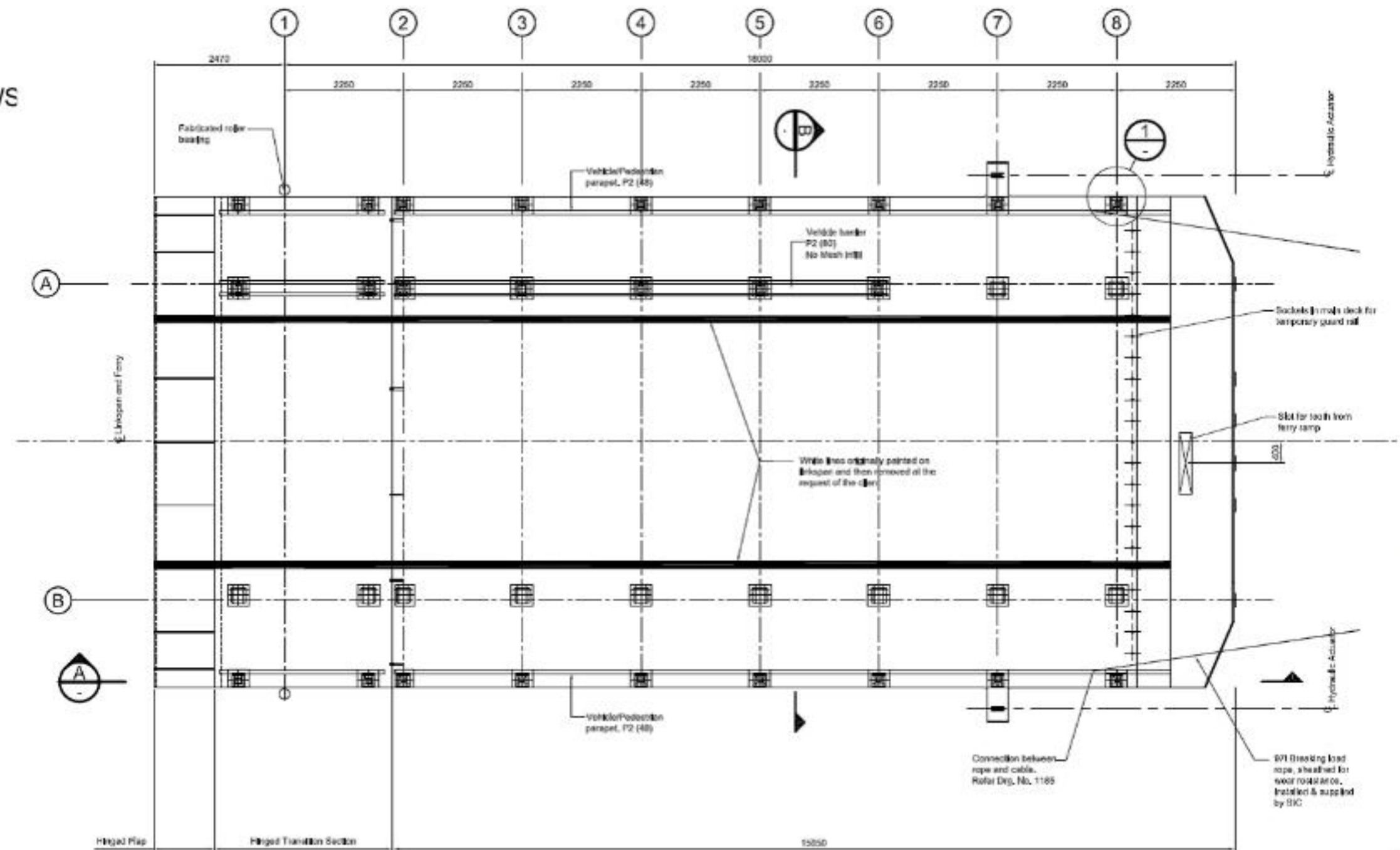
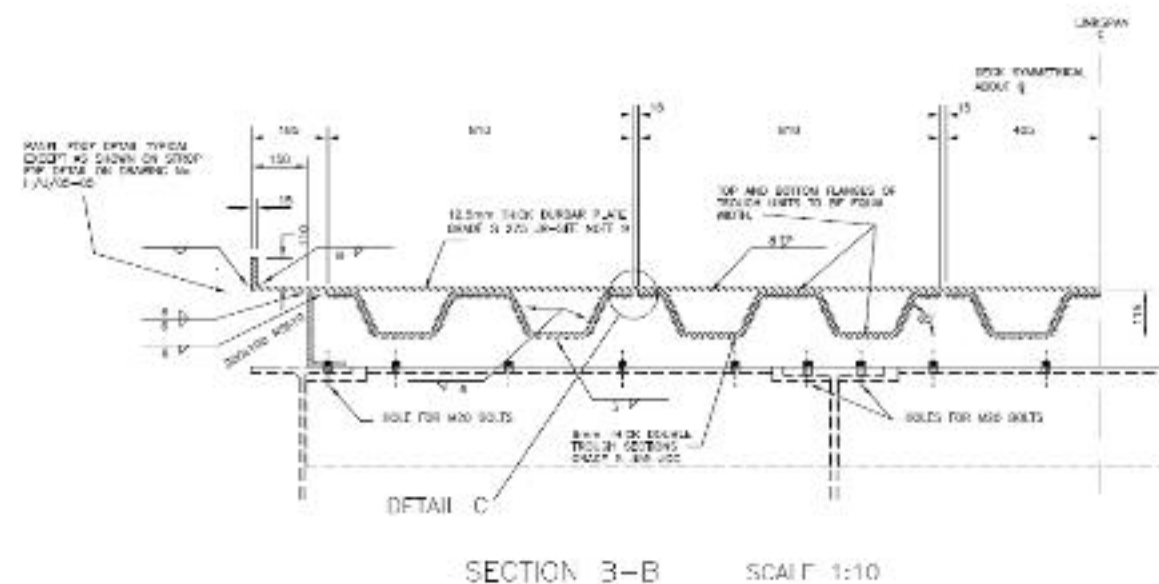
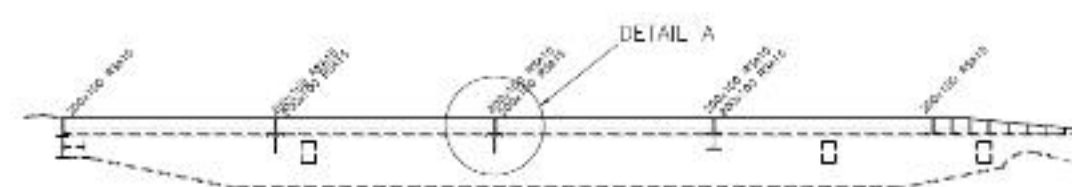
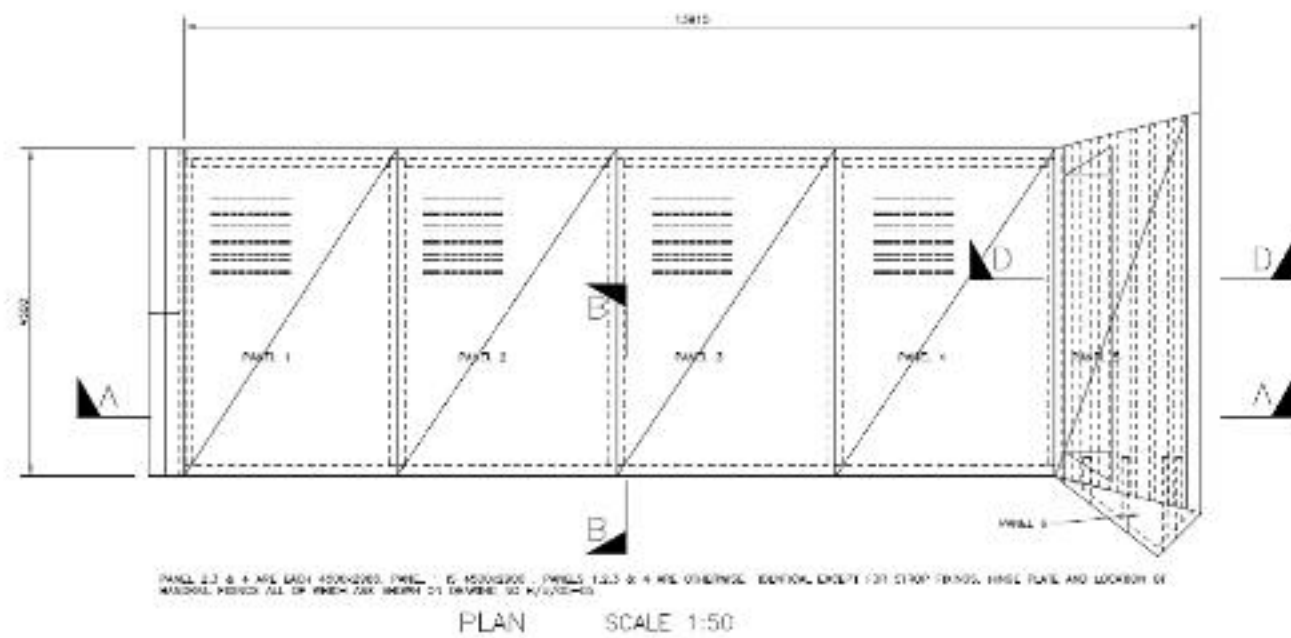


Linkspans -2

SHETLAND TIDAL LEVELS

LOCATION	MHWS	MHWS	MLWN	MLWS
Lerwick	2.1	1.7	0.9	0.5
Grutness (Sumburgh)	1.8	1.4	0.7	0.4
Scalloway	1.6	1.3	0.6	0.5
Bay of Quendale	1.7	1.4	0.9	0.6
Foula	2.0	1.6	0.9	0.5
Drury Voe	2.1	1.6	0.9	0.3
Out Skerries	2.2	1.7	0.9	0.4
Burra Voe (Yell Sound)	2.3	1.8	0.9	0.4
Mid Yell	2.4	1.9	1.1	0.6
Bluemull Sound	2.6	1.9	1.0	0.5
Hillswick	2.0	1.6	0.8	0.4

The original linkspans were installed in the early 1970s and are 13.915m long and 4.5m wide. Hinged and buffered at the shore end, the system provides a gentle slope for traffic across a tidal range that barely exceeds a maximum of 2m and is often considerably less. It is also straightforward to maintain. Some of these linkspans were replaced in the late 1990s with similar bridges (see below).



In 2003 the terminals at Ulsta and Toft were reconstructed to provide larger and more robust berths. The linkspans (see above) are 20.7m long and 9.3m wide, with a span of 18.0m from the inner hinged bearing to the ship end. This additional length further reduces the gradient for traffic. In 2004 the new terminal at Hamars Ness on Fetlar was also constructed with the larger berth size.

The original linkspans from these terminals were recycled for the new terminals at West Burrafirth and Papa Stour. The third linkspan has been kept as a spare.



Vessels



The trim of the ferry can be seen to change as the weight of the linkspan is placed on the shoreward end of the ferry, thus taking it lower into the water (see right).

The vessels have a tooth to latch on to the end of the linkspan with safety cables from the linkspan also connected to the ferry. Normally no other lines are used for mooring.

The linkspan height is controlled by a simple hydraulic system (slightly more complex on the newer, larger linkspans) to suit the tidal levels.

While much of the traffic is made up of cars and vans, provision can be made for large articulated trucks that need to travel to even the small islands (see below).



Ferry Berthing

Most of the ferries are “drive through” and have similar connections that enable berthing at either end to avoid unnecessary turning. The vessels have controllable direction propulsion that can hold on to the berth without the need for running lines ashore, except in bad weather.

As a RoRo ferry approaches the linkspan berth, the the visor is raised and the linkspans are made ready for berthing. With no shore based berthing crew all linkspans are controlled from the ferries with the levels adjusted by remote control.

The ferry stops just short of the linkspan which is then lowered onto the vessel, latching on to the tooth. The vessel's flap is then lowered down on to the linkspan to form part of the driving surface.

Cables from the linkspan, which are secured directly to the shore, are pinned to the ferry. The safety barrier at the shoreward end of the linkspan is then opened and the vehicles drive from the vessel. Loading and departure is the reverse procedure.



TERMINALS

- 1 - Toft
- 2 - Ulsta
- 3 - Gutcher
- 4 - Belmont
- 5 - Hamars Ness
- 6 - Laxo
- 7 - Vidlin
- 8 - Symbister
- 9 - Skerries
- 10 - Lerwick
- 11 - Bressay
- 12 - Walls
- 13 - Foula
- 14 - West Burrafirth
- 15 - Papa Stour
- 16 - Grutness
- 17 - Fair Isle



Toft



Terminal Overview

Toft is located to the northeast of mainland Shetland and provides the terminal for the Yell Sound ferry service to the island of Yell to the north. The terminal lies within a bay that is afforded some protection to the otherwise exposed northerly and easterly channels by outlying islands. Swell can be experienced at the berth.



Structures and Condition

RoRo vessels berth against a row of fender panels on the inner south western side of a piled jetty that extends 63m from the end of the larger sized linkspan. There is a layby berth on the other side of the jetty.

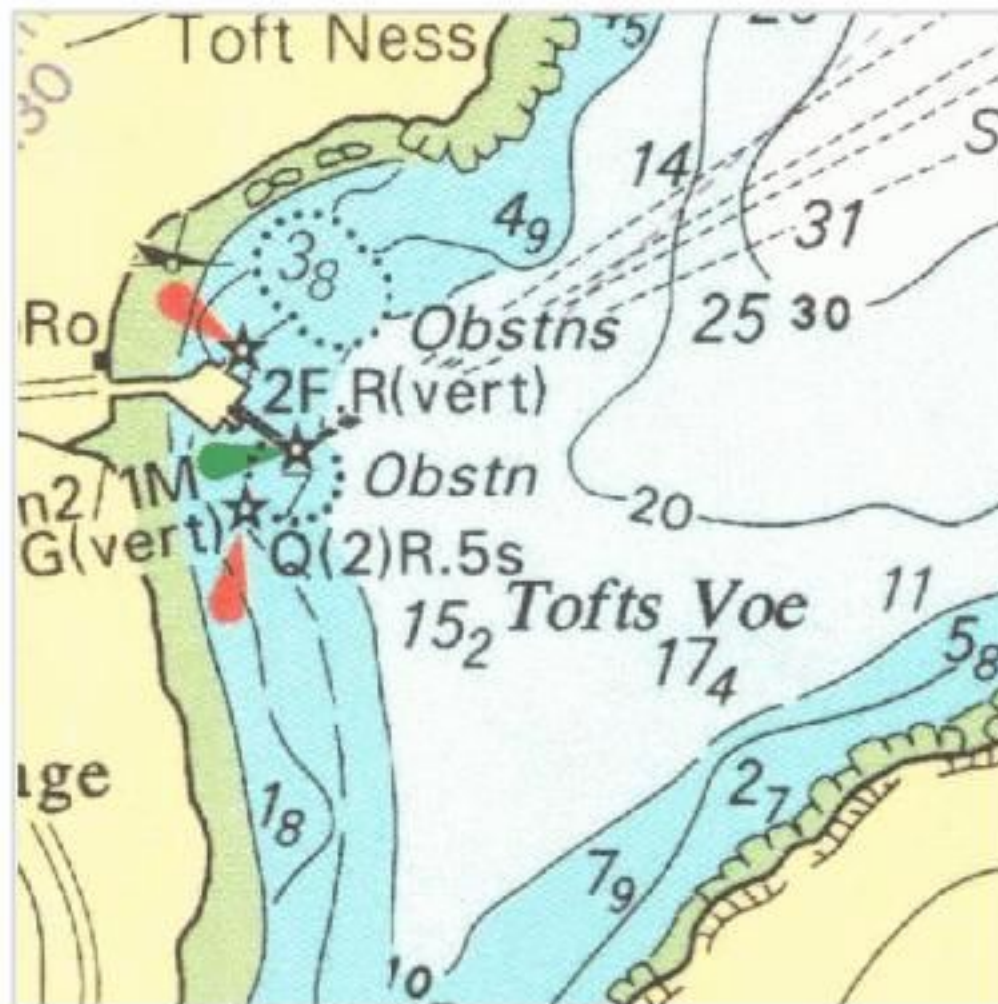
The 65m long by 14m beam ferry "DAGGRI" was observed on the berth. While there is a small amount of parking available at the terminal, vehicles waiting for the ferry queue on the road leading up to the terminal.

The terminal was found to be in serviceable condition.



Timeframe

The present Toft ferry terminal was constructed in 2003 with cathodic protection added in 2012.

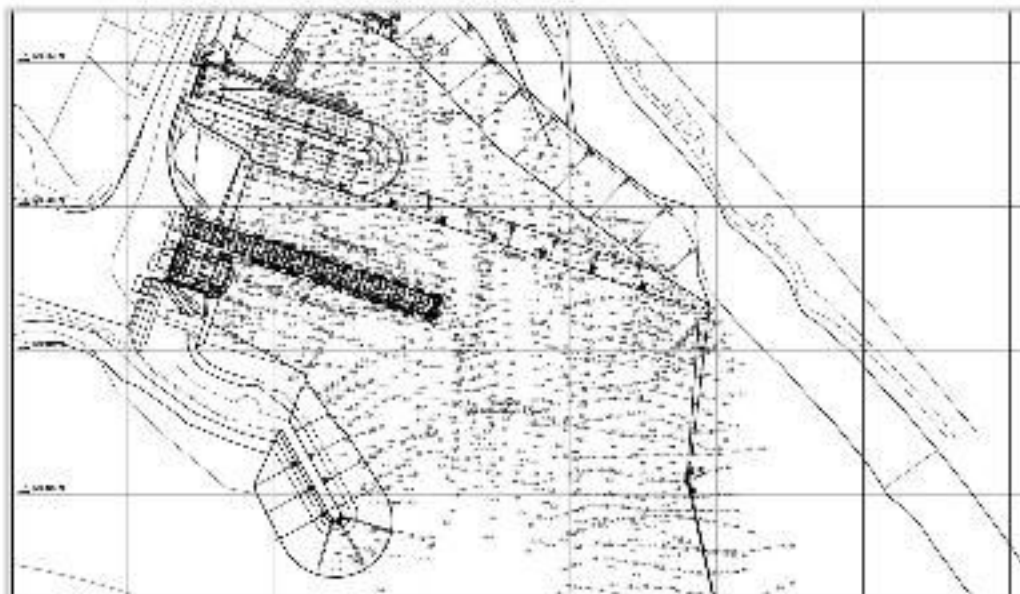


Ulsta



Terminal Overview

Ulsta is located to the southwest of the island of Yell and provides the terminal for the Yell Sound ferry services to mainland Shetland to the south. The terminal is tucked into a sheltered bay and is given further protection from waves by a 100m long breakwater on the outer south westerly side. The existing ferry vessels can overnight here safely.



Structures and Condition

RoRo vessels berth against a row of fender panels on the outer south side of a piled jetty that extends 70m from the end of the larger sized linkspan. There is a layby berth on the other side of the jetty.

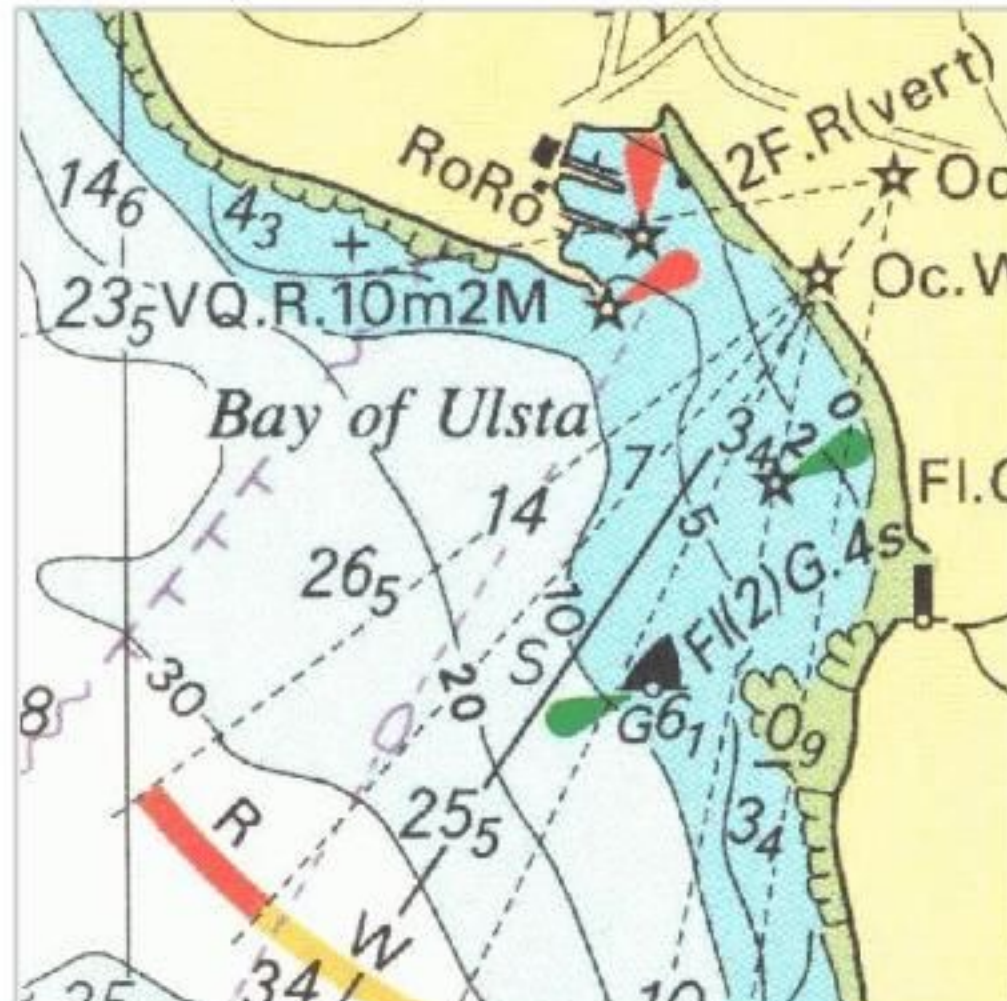
The 65m long by 14m beam ferry "DAGGRI" was observed on the berth. About 200 lane metres of parking is provided for vehicle waiting for the ferry which is adequate for 1 vessel.

The terminal was found to be in serviceable condition.



Timeframe

The present Ulsta ferry terminal was constructed in 2003 alongside the old berth with the old linkspan recycled for use at Papa Stour. Cathodic protection was added in 2013. Patch repairs were made to the original terminal breakwater outer face in 1998.



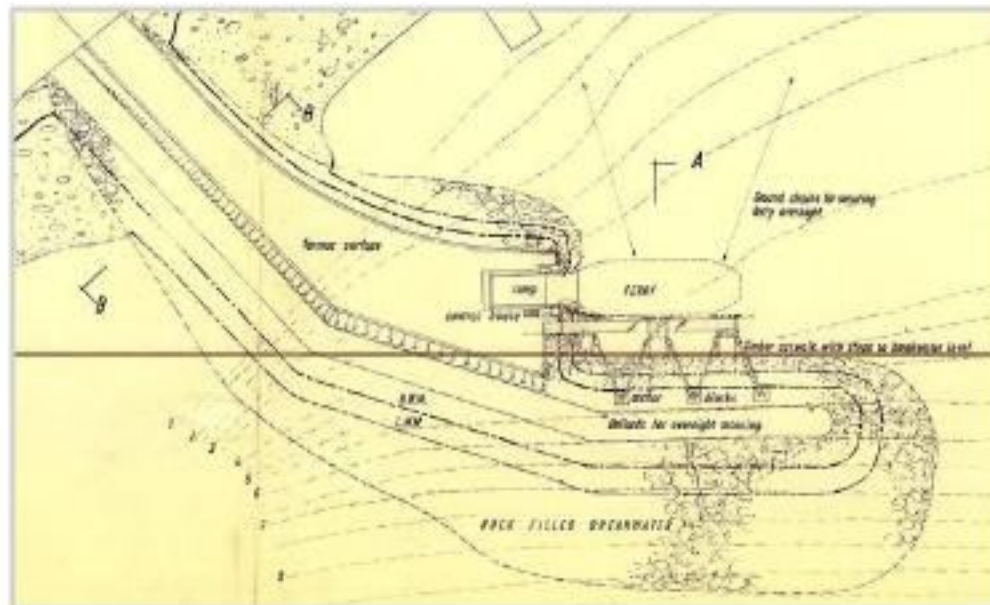
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Gutcher



Terminal Overview

Gutcher is located to the northeast of the island of Yell and provides the terminal for Bluemull ferry services to the islands of Unst and Fetlar further to the north and south east. A 150m long breakwater forms a 40m long sheltered RoRo ferry berth giving protection from easterly and south easterly waves. The existing ferry vessels can overnight here safely.

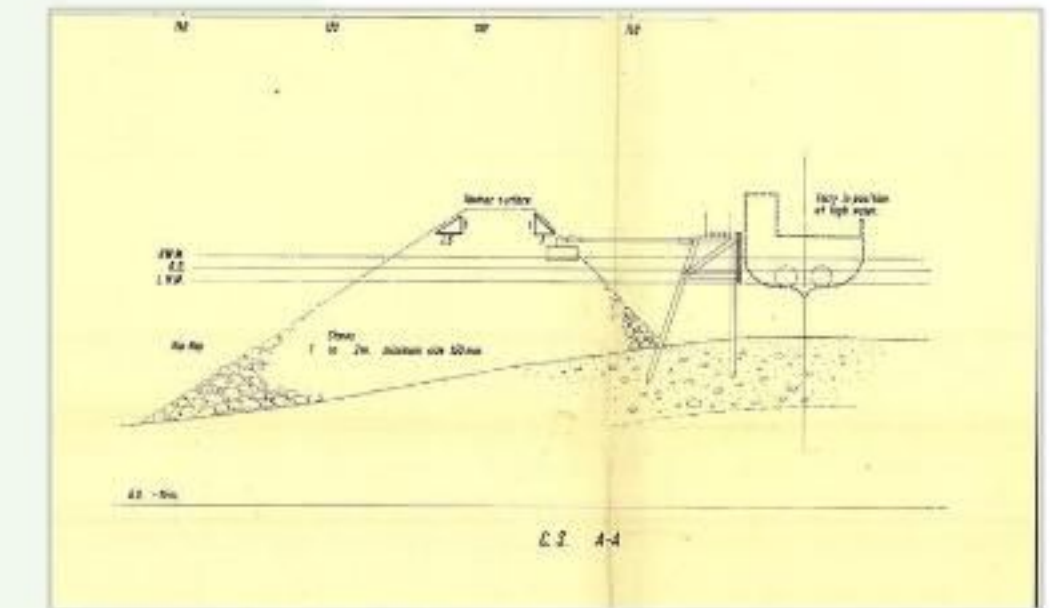


Structures and Condition

Vessels berth against a row of 3 dolphins on the lee side of the rubble mound breakwater and extend 25m from the end of the linkspan. These timber dolphins are supported against the breakwater by a series of horizontal diagonal timber struts founded on concrete blocks. They are faced with vertical rubber D fenders supported in steel H sections. Plans have been prepared for the construction of an additional dolphin that would help vessel manoeuvring in windy conditions.

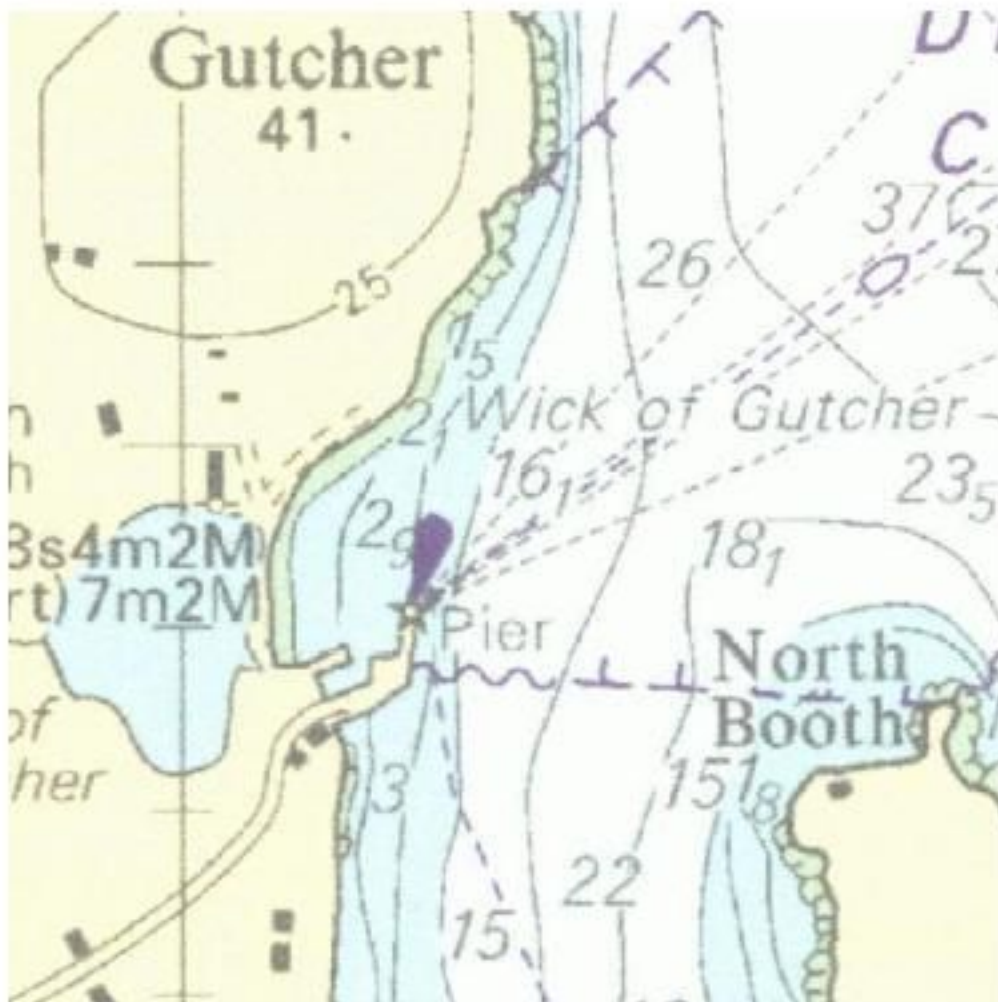
The 30m long by 9m beam ferries "FIVLA" and "GEIRA" were observed on the berth. About 90 lane metres of parking is provided for vehicle waiting for the ferry which is adequate for 1 vessel.

The terminal was found to be in serviceable condition.



Timeframe

Gutcher ferry terminal was originally constructed in circa 1972. A new linkspan was installed in 1996.



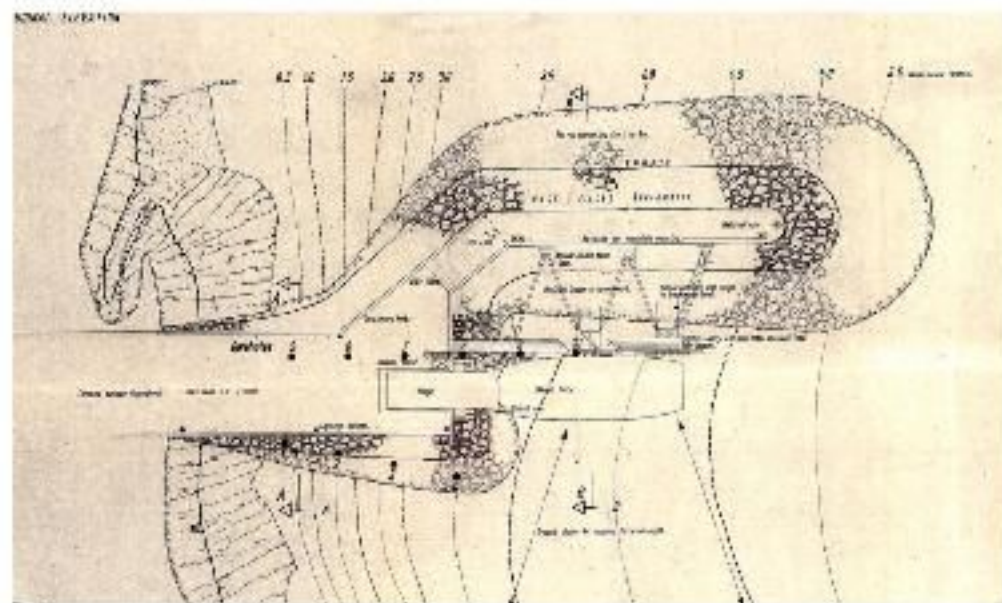
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Belmont



Terminal Overview

Belmont is located to the southwest of the island of Unst and provides the terminal for Bluemull ferry services to the island of Yell to the southwest and the island of Fetlar further to the south. A 100m long breakwater forms a 60m long sheltered RoRo ferry berth giving protection from southerly waves.

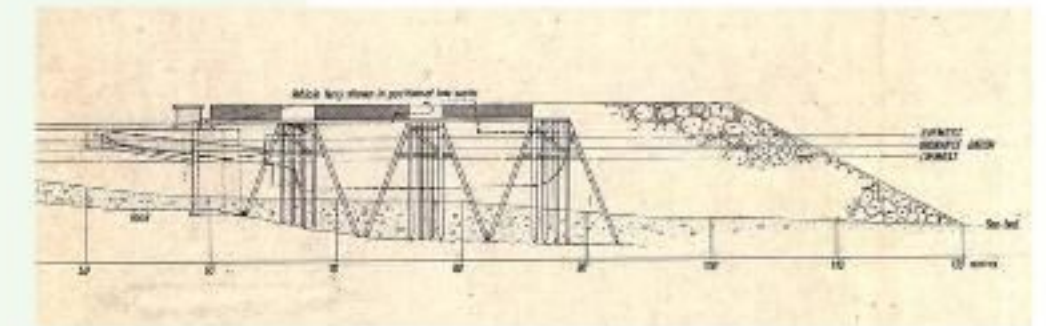


Structures and Condition

Vessels berth against a row of 3 dolphins on the lee side of the rubble mound breakwater and extend 25m from the end of the linkspan. These timber dolphins are supported against the breakwater by a series of horizontal diagonal timber struts founded on concrete blocks and are faced with vertical rubber D fenders supported in steel H sections.

The 30m long by 9m beam ferry "FIVLA" was observed on the berth. About 150 lane metres of parking is provided for vehicle waiting for the ferry which is more than adequate for 1 vessel.

The terminal was found to be in serviceable condition.



Timeframe

Belmont ferry terminal was originally constructed in 1972. A new linkspan was installed in 1998 with cathodic protection added in 2007. The breakwater was re-armoured 1998.



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Hamars Ness



Terminal Overview

Hamars Ness is located at the northwest of the island of Fetlar and provides the terminal for Bluemull ferry services to the island of Yell to the west and Unst to the north. A 200m long breakwater provides shelter to the RoRo ferry berth from northerly waves. Outlying islands give some protection from the otherwise exposed easterly direction. The existing ferry vessels can overnight here safely.

Structures and Condition

RoRo vessels berth against a row of fender panels on the southern side of a piled jetty that extends 50m from the end of the larger sized linkspan. There is a layby berth on the other side of the jetty.

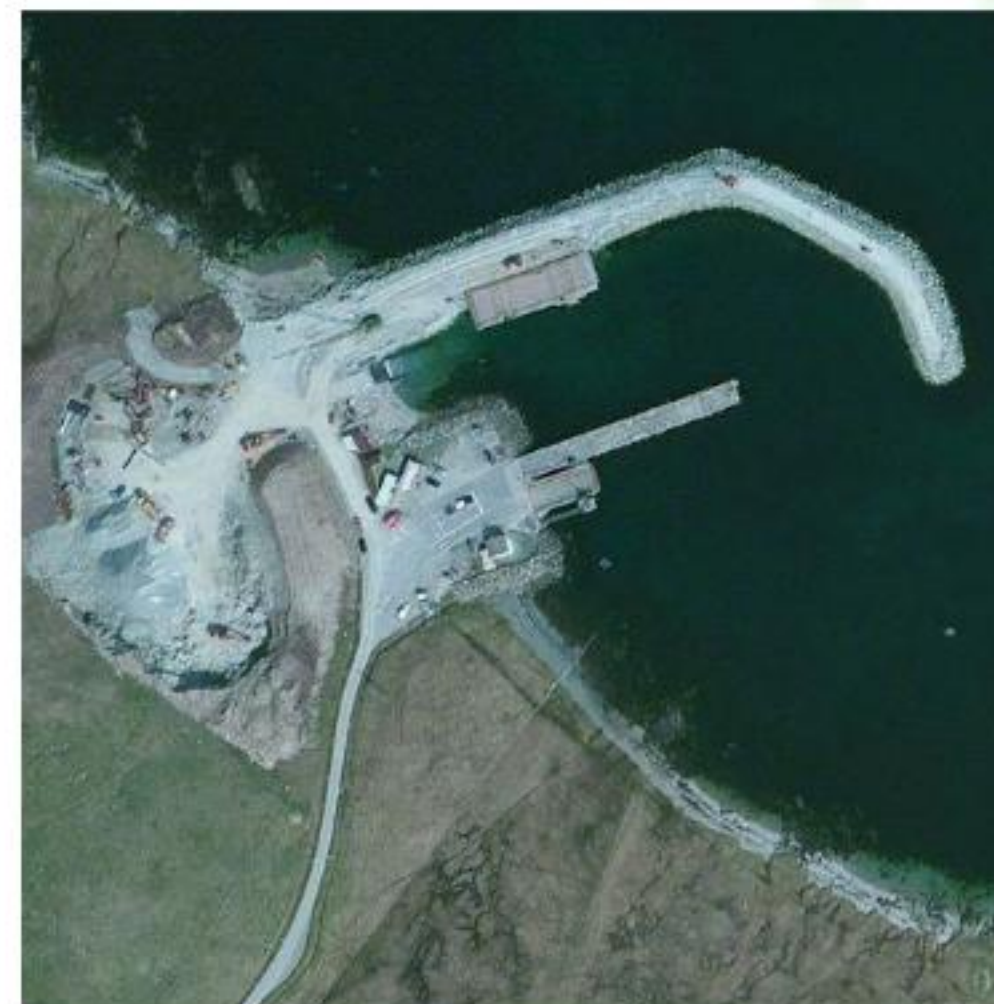
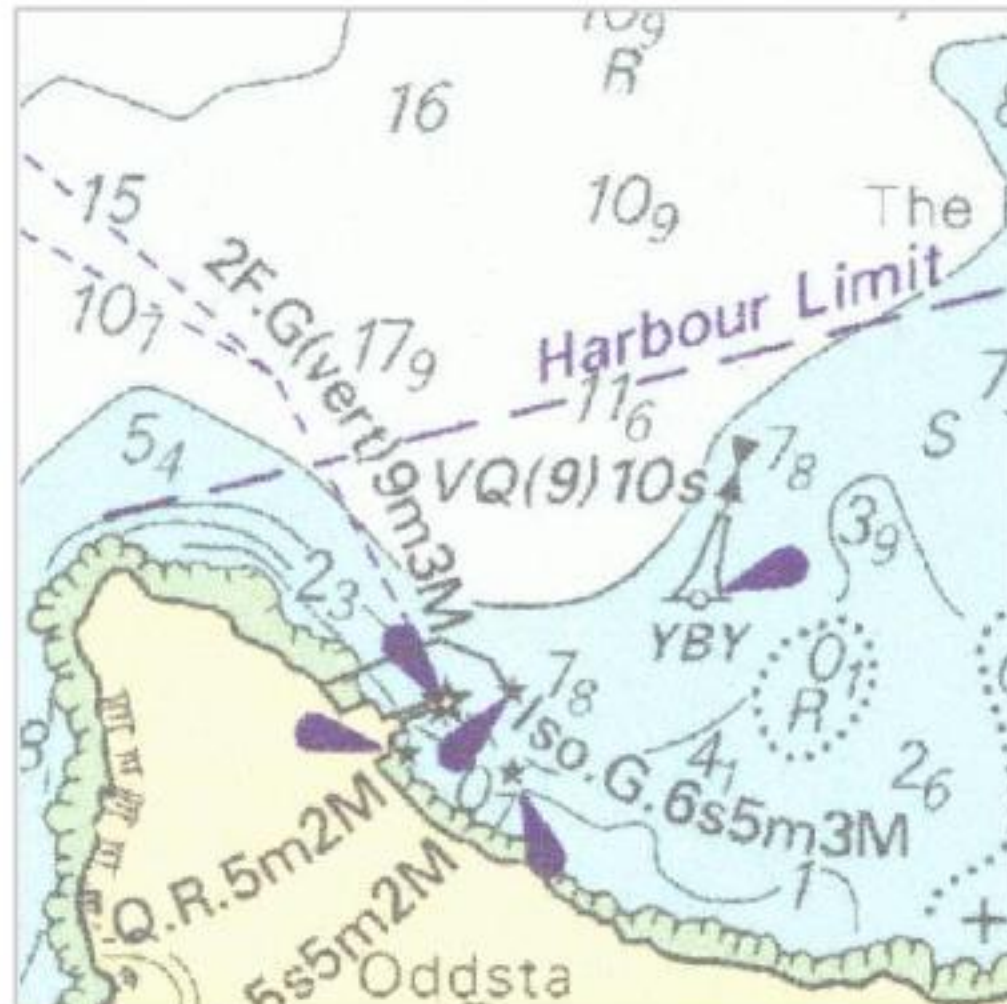
The 30m long by 9m beam ferry "GEIRA" was observed on the berth. About 50 lane metres of parking is provided for vehicle waiting for the ferry with any more vehicles having to park on the approach road.

The terminal was found to be in serviceable condition.



Timeframe

Hamars Ness ferry terminal was originally constructed in 2004 with cathodic protection added in 2009.



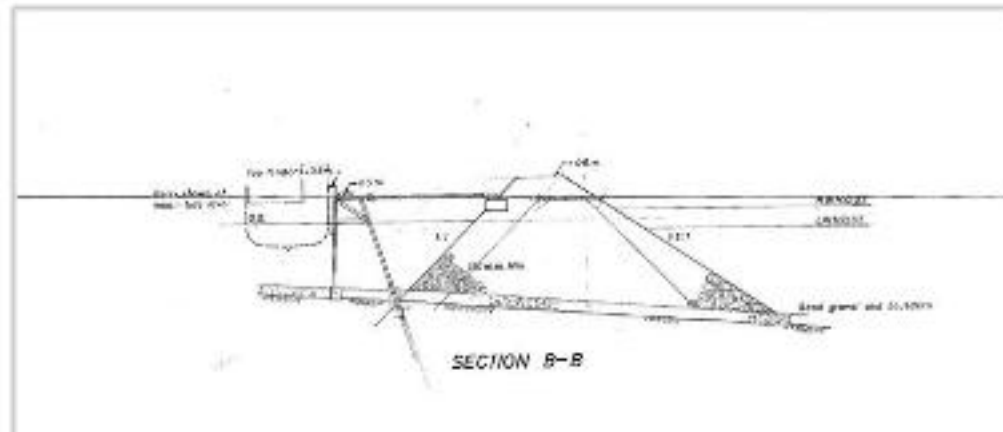
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Laxo



Terminal Overview

Laxo is located to the northeast of mainland Shetland and provides the main terminal for ferry services to the island of Whalsay to the east. It is located at the head of an inlet with a 125m long breakwater giving protection from easterly waves, creating a sheltered RoRo ferry berth. It is understood that this route has the greatest capacity constraints and some of the worst sea conditions.

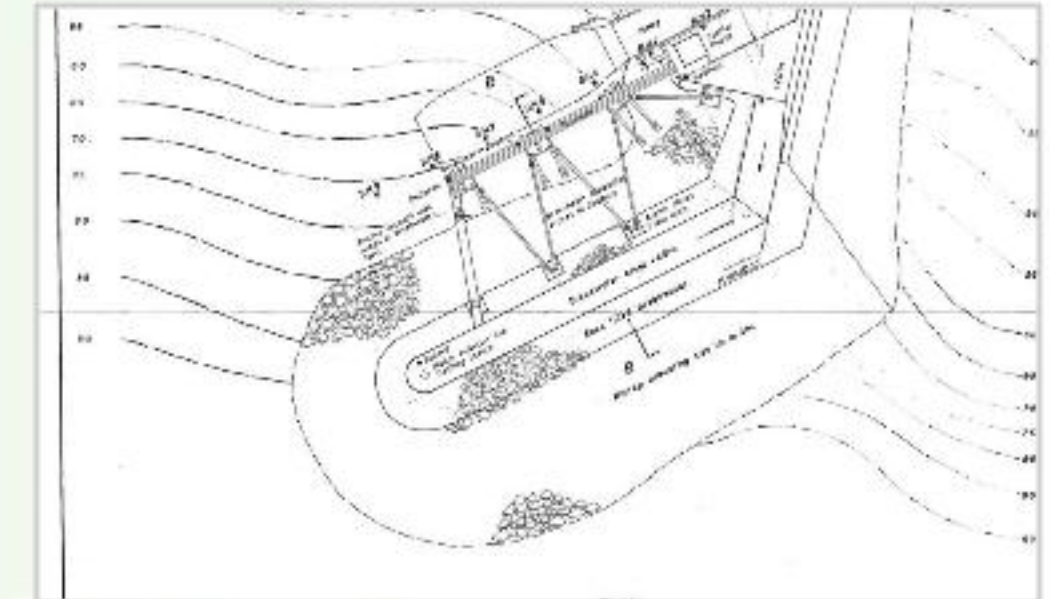


Structures and Condition

Vessels berth against a row of 5 dolphins on the lee side of the rubble mound breakwater and extend 38m from the end of the linkspan. These timber dolphins are supported against the breakwater by a series of horizontal diagonal timber struts founded on concrete blocks and are faced with vertical rubber D fenders supported in steel H sections.

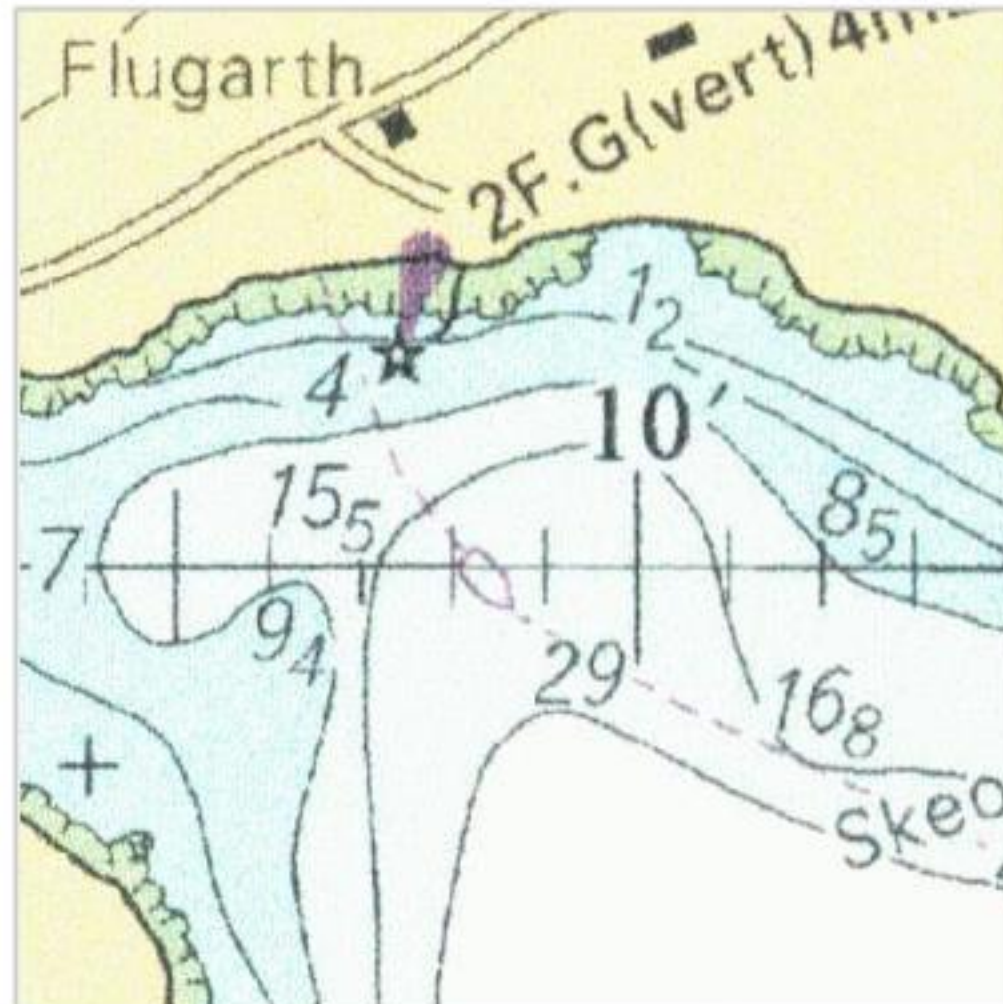
The 34m long by 9.4m beam ferry "HENDRA" and the 36m long by 10.8m beam ferry "LINGA" were observed on the berth. While there is some parking at the terminal, traffic for the ferries queues on the approach road.

The terminal was found to be in serviceable condition.



Timeframe

Laxo ferry terminal was originally constructed circa 1973/74. A new linkspan was installed in 1997 and a new outer dolphin was added in 2010.

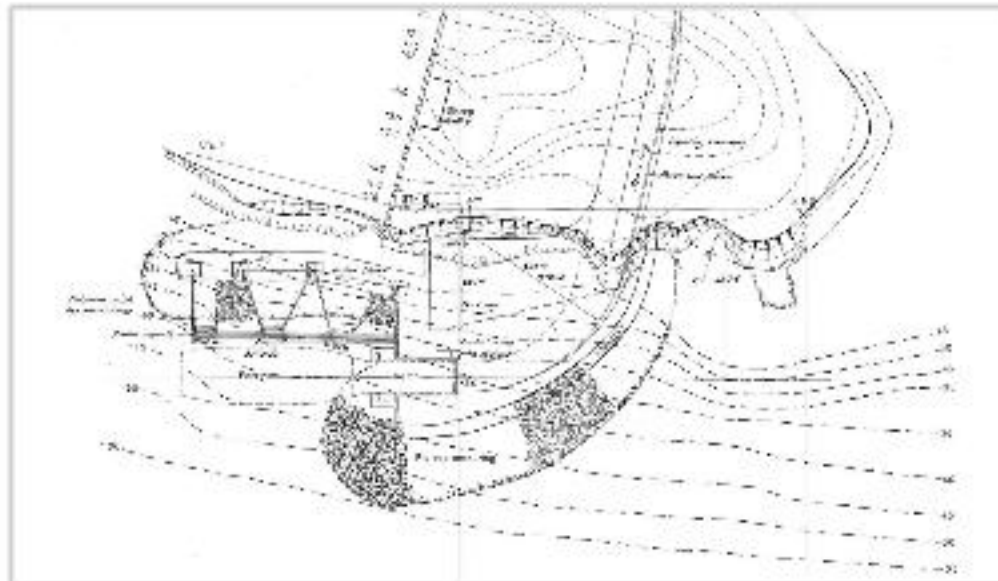


Vidlin



Terminal Overview

Vidlin is located at the northeast of mainland Shetland and is the main terminal for Skerries. It also provides an alternative terminal in the event of bad weather on the Laxo route for RoRo ferry services to the island of Whalsay to the east. It is at the head of an inlet on the opposite northern side of a promontory from Laxo.

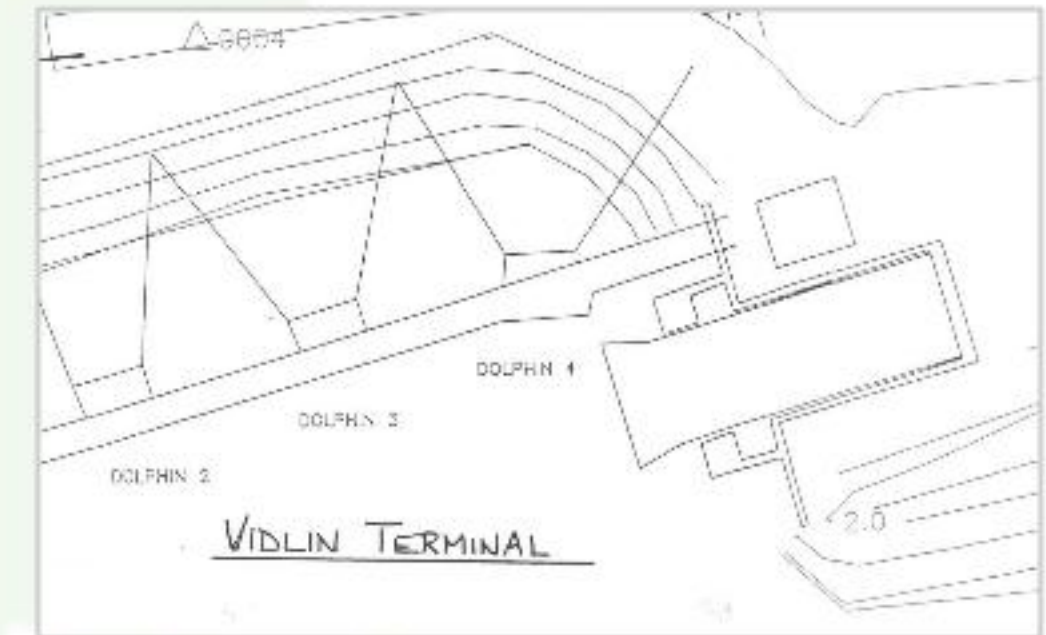


Structures and Condition

Vessels berth against a row of 4 dolphins alongside a rubble mound and extend 33m from the end of the linkspan. These timber dolphins are supported against the breakwater by a series of horizontal diagonal timber struts founded on concrete blocks and are faced with vertical rubber D fenders supported in steel H sections.

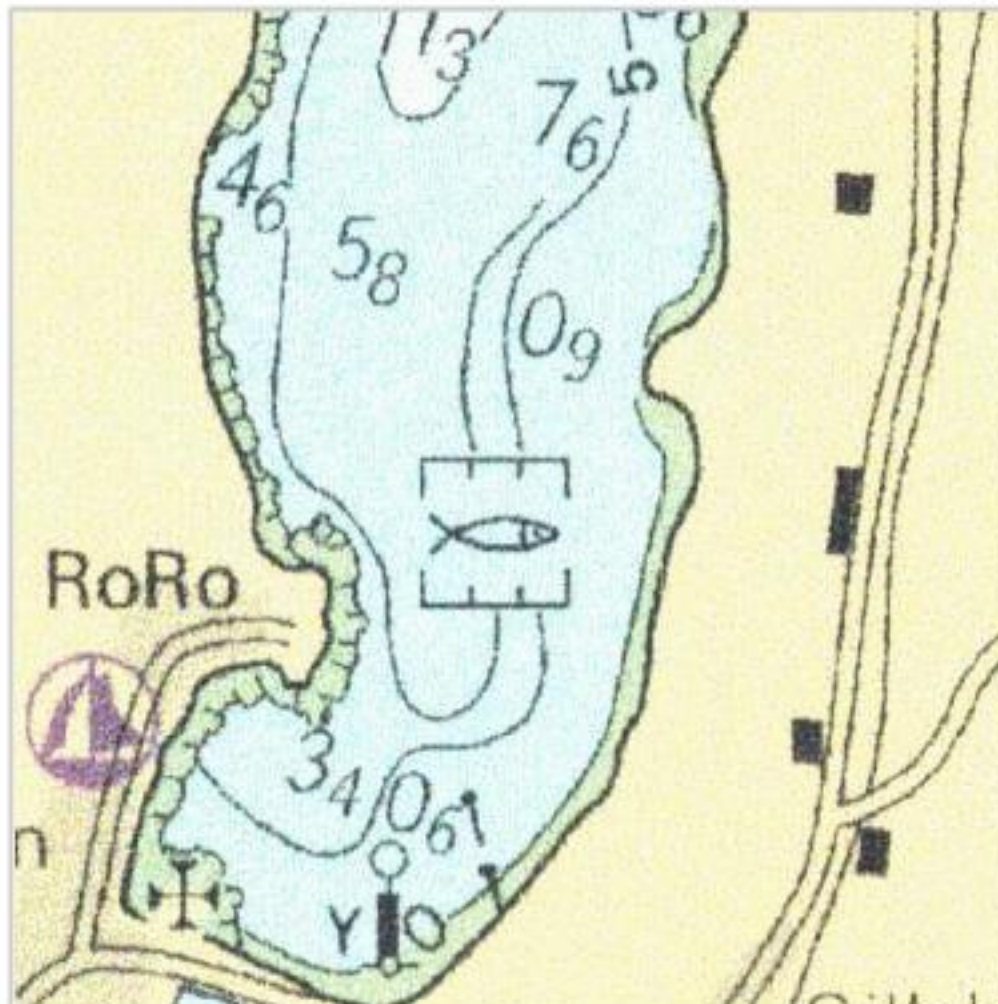
No ferry was observed on the berth. There is no dedicated parking at the terminal and traffic for the ferries queues on the approach road.

The terminal was found to be in serviceable condition.



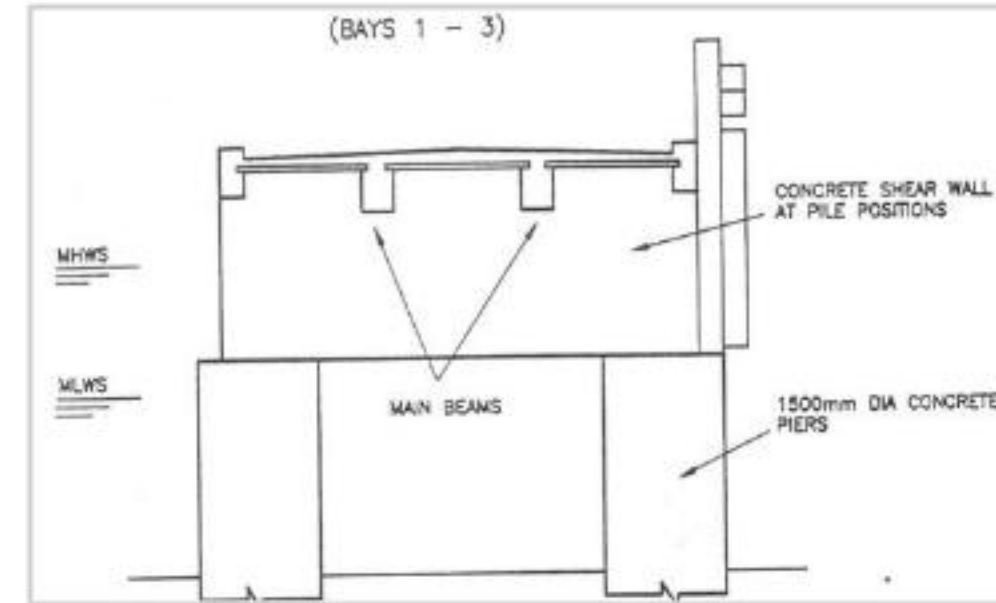
Timeframe

Vidlin ferry terminal was originally constructed circa 1975. Anchor blocks were tied back and armour behind the dolphins was reinforced 1998.



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Symbister



Terminal Overview

Symbister is located to the southwest of the island of Whalsay and provides the RoRo terminal for ferry services to Laxo on mainland Shetland, or Vidlin if the weather conditions make this preferable. Symbister also serves the ferry link to Skerries. The terminal is in a sheltered harbour accessed by vessels from the north. The existing ferry vessels can overnight here safely.

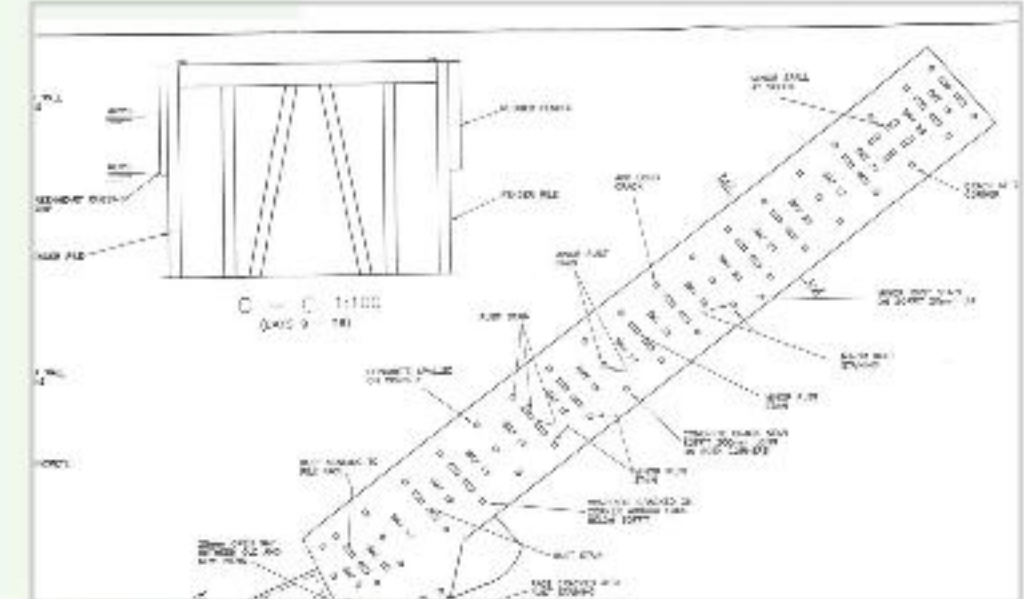
Symbister is the overnight berth for the Skerries ferry with some positioning runs to and from Skerries.

Structures and Condition

Vessels berth on the inner side of a concrete jetty that heads off at an angle and is used by others. The available berthing length extends about 27m from the end of the linkspan.

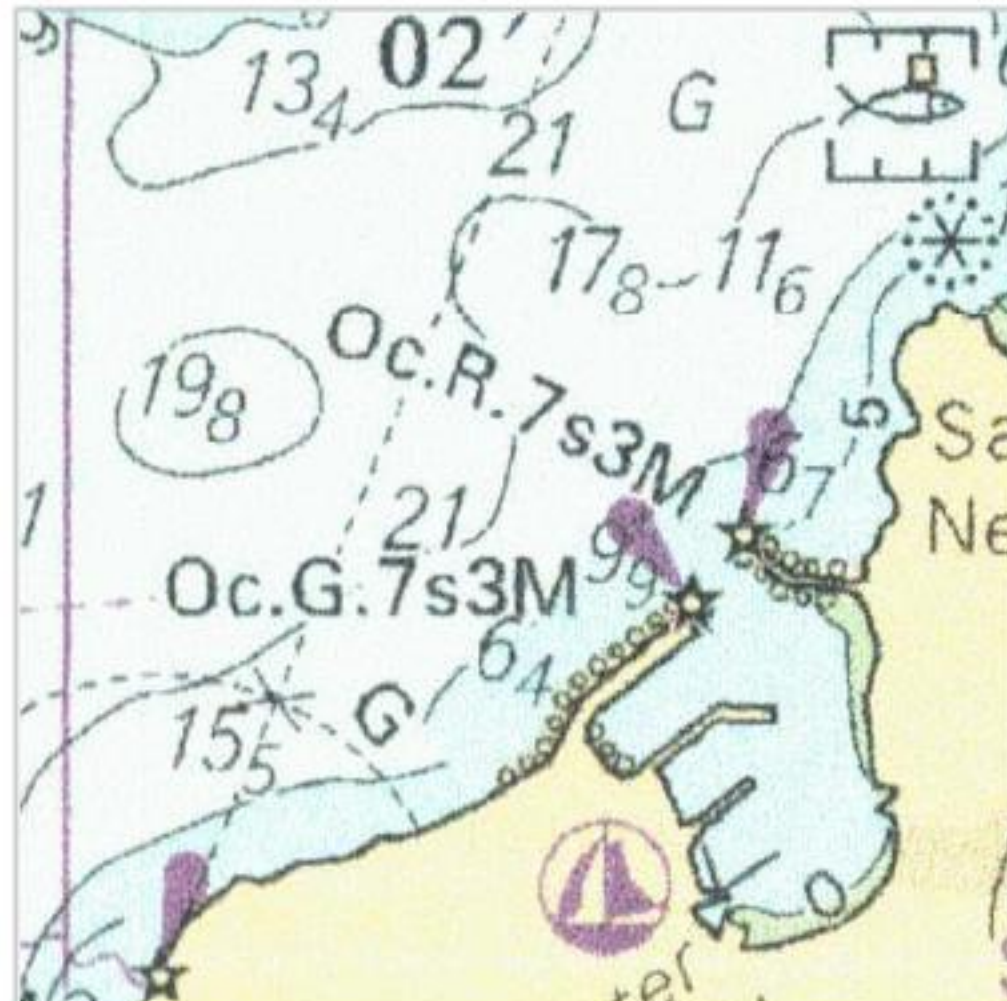
This terminal was not visited but the 34m long by 9.4m beam ferry "HENDRA" and the 36m long by 10.8m beam ferry "LINGA" were observed on the route. About 125 lane metres of parking is provided for vehicle waiting for the ferry which is adequate for 1 vessel.

It is understood that the terminal is in serviceable condition.



Timeframe

Symbister ferry terminal was originally constructed circa 1973 / 1974. A new linkspan was installed in 1996 with cathodic protection added in 2009.



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Skerries



Terminal Overview

Skerries terminal is located at Bruray near to the centre of the group of islands. It provides the terminal for RoRo ferry services to Symbister and Vidlin on mainland Shetland to the west as well as for passenger / freight ferries directly to Lerwick further south. The terminal is in a natural harbour sheltered by surrounding islands with the exception of an entrance to the south which forms the navigation channel but also exposes the berth.

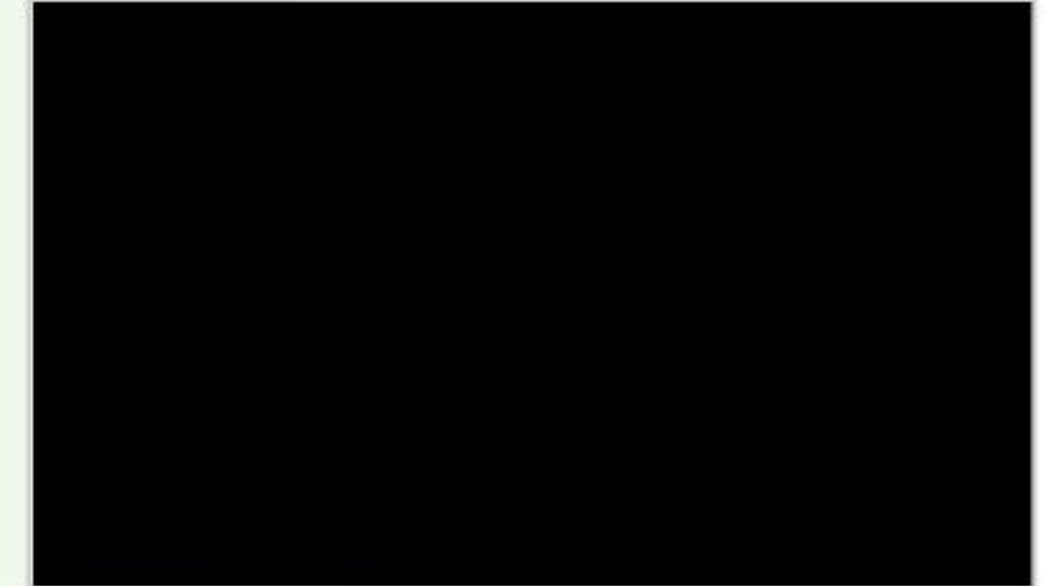


Structures and Condition

Vessels berth on the outer side of a concrete piled jetty that extends 25m from the end of the linkspan. The other side of the jetty and its deck are used for other activities.

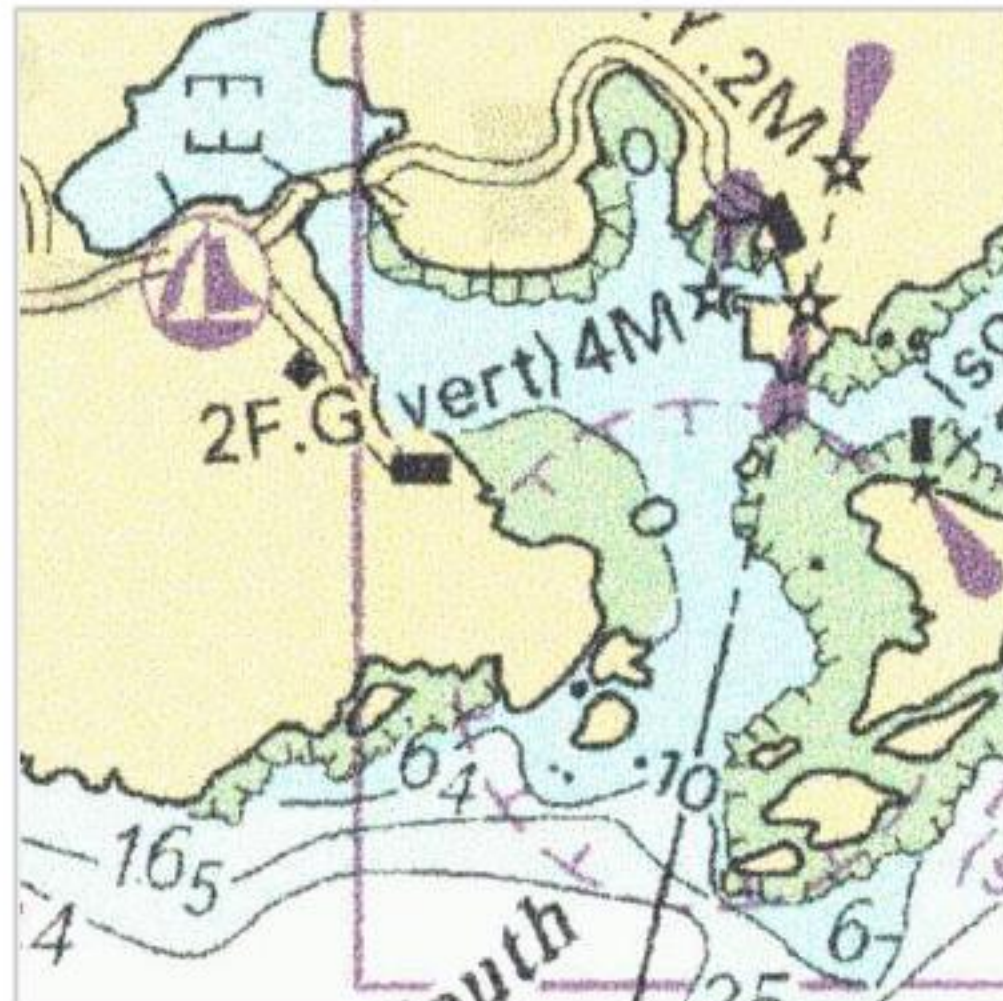
This terminal was not visited. There is no dedicated parking for traffic waiting for the ferry.

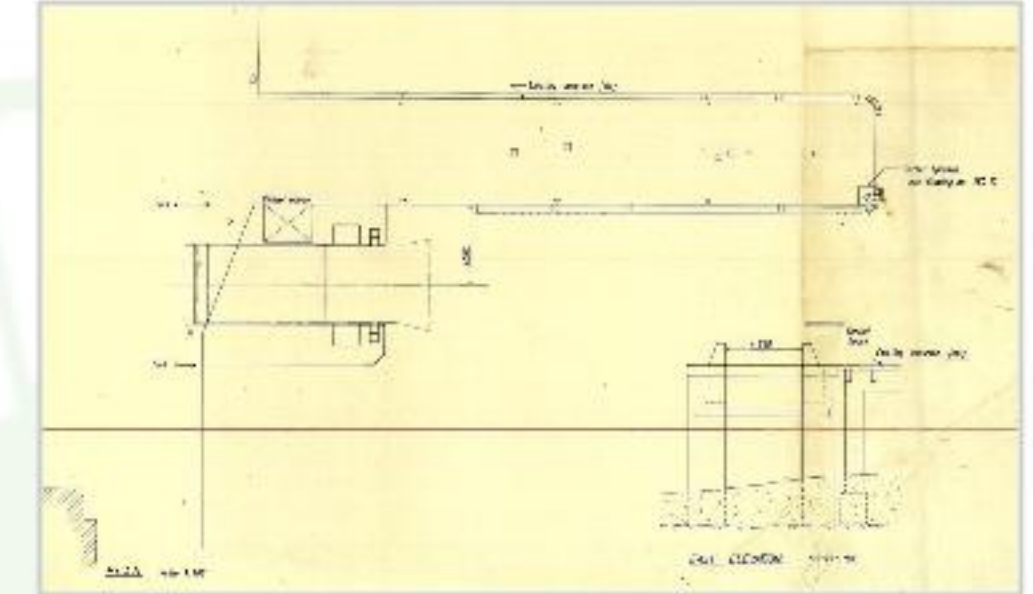
It is understood that the terminal is in serviceable condition.



Timeframe

Skerries ferry terminal was originally constructed in 1985 with cathodic protection added in 2012.





Terminal Overview

Lerwick is the main Shetland port and is located on the east coast towards the centre of mainland Shetland. The island ferry services operate from berths to the south of the port which is sheltered by the island of Bressay which lies to the east. The RoRo ferry berth provides the terminal for the service to Maryfield on Bressay.

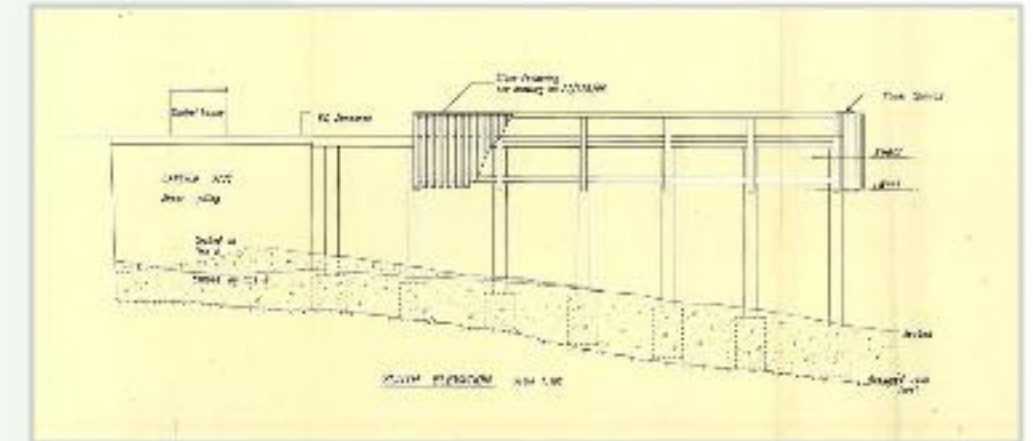
The Skerries ferry works freight at Hay's Dock and discharges and loads vehicles at the same linkspan as the Bressay ferry.

Structures and Condition

RoRo vessels berth against the fender panelled southern side of a concrete piled jetty that extends 30m from the end of the linkspan.

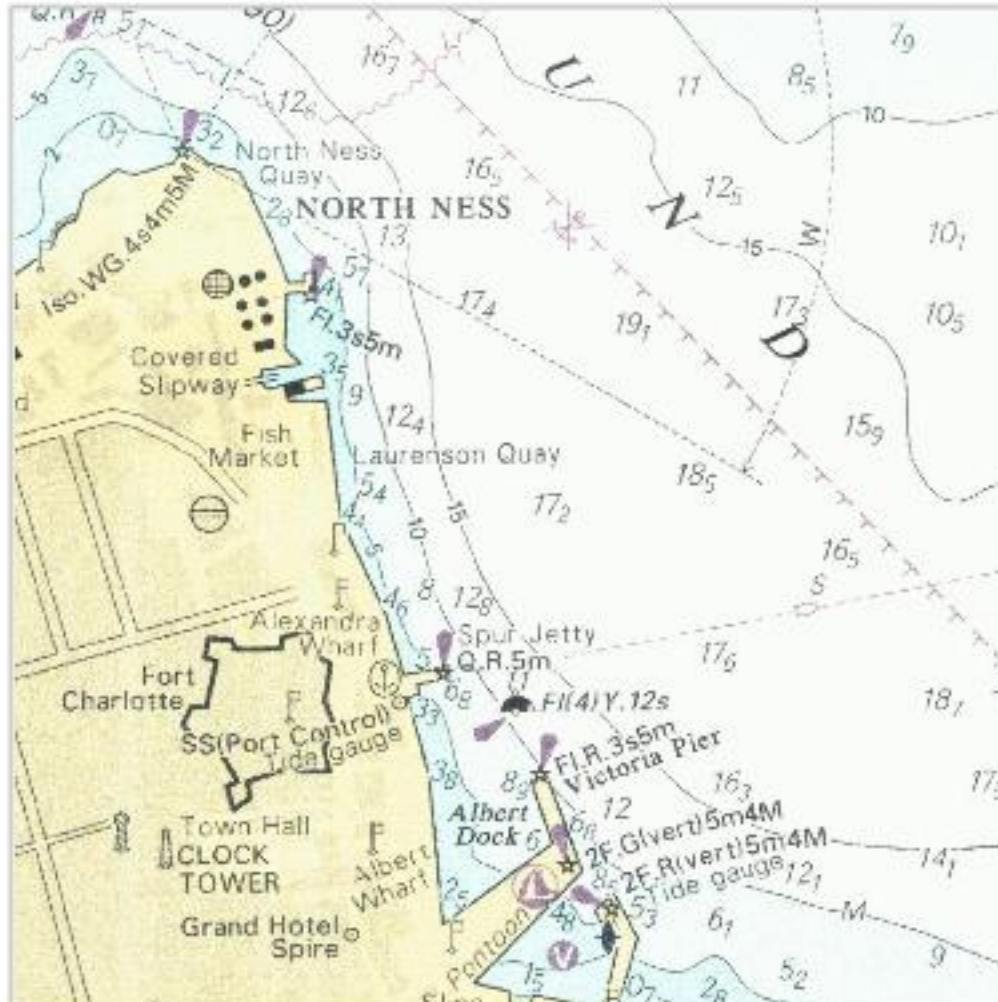
The 32m long by 10.7m beam ferry "LEIRNA" was observed on the berth. About 80 lane metres of parking is provided for vehicle waiting for the ferry which is adequate for 1 vessel.

The terminal was found to be in serviceable condition.



Timeframe

Lerwick ferry terminal was originally constructed circa 1973 / 1975. A new linkspan was installed in 1996 with cathodic protection added in 2007.



Bressay



Terminal Overview

The terminal is located at Maryfield towards the centre of the western side of the island of Bressay, and provides the terminal for RoRo ferry services to Lerwick on mainland Shetland to the west. A 200m long breakwater forms a 50m long sheltered RoRo ferry berth giving protection from south southwesterly waves. The existing ferry vessels can overnight here safely.



Structures and Condition

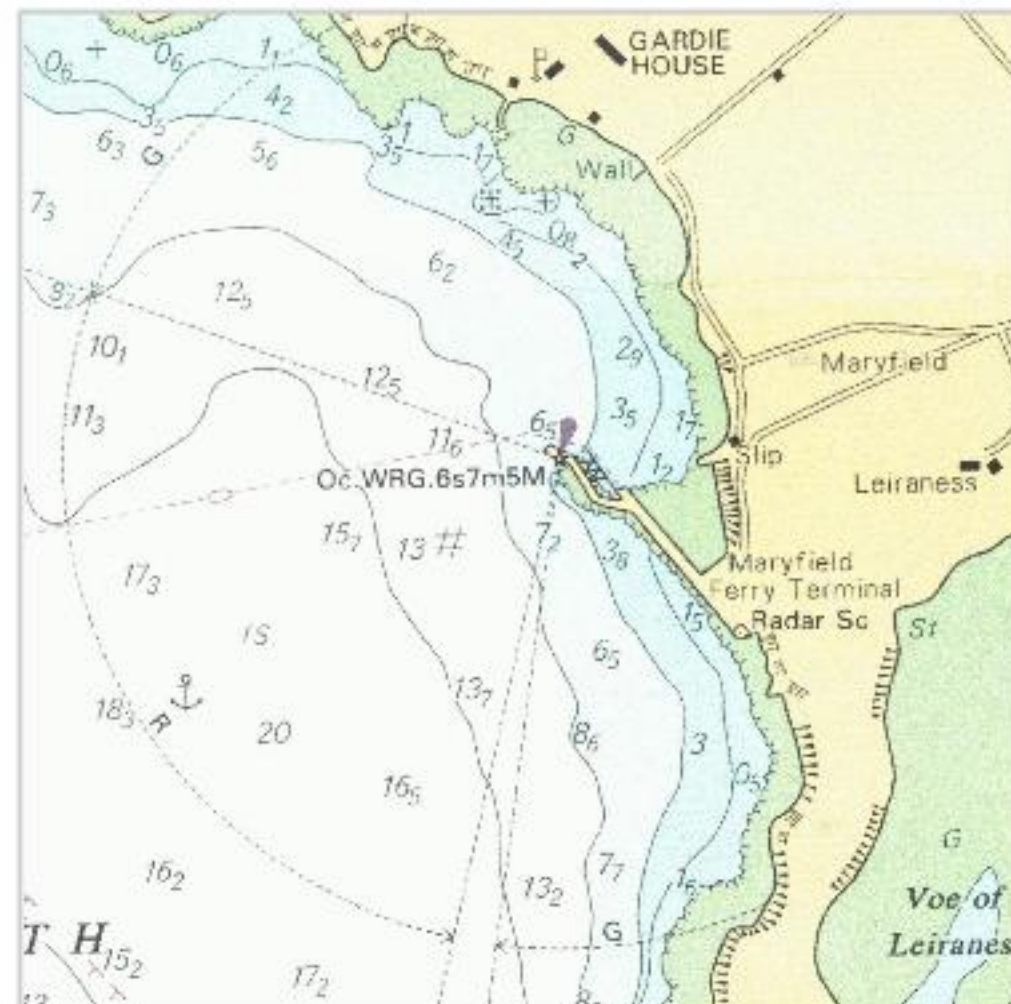
Vessels berth against a row of 5 dolphins on the lee side of the rubble mound breakwater and extend 38m from the end of the linkspan. These timber dolphins are supported against the breakwater by a series of horizontal diagonal timber struts founded on concrete blocks and are faced with vertical rubber D fenders supported in steel H sections.

The 32m long by 10.7m beam ferry "LEIRNA" was observed on the berth. About 120 lane metres of parking is provided for vehicle waiting for the ferry which is more than adequate for 1 vessel.

The terminal was found to be in serviceable condition.

Timeframe

Bressay ferry terminal was originally constructed circa 1973 / 1975. A new linkspan was installed circa 1996 / 1997.



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Walls



Terminal Overview

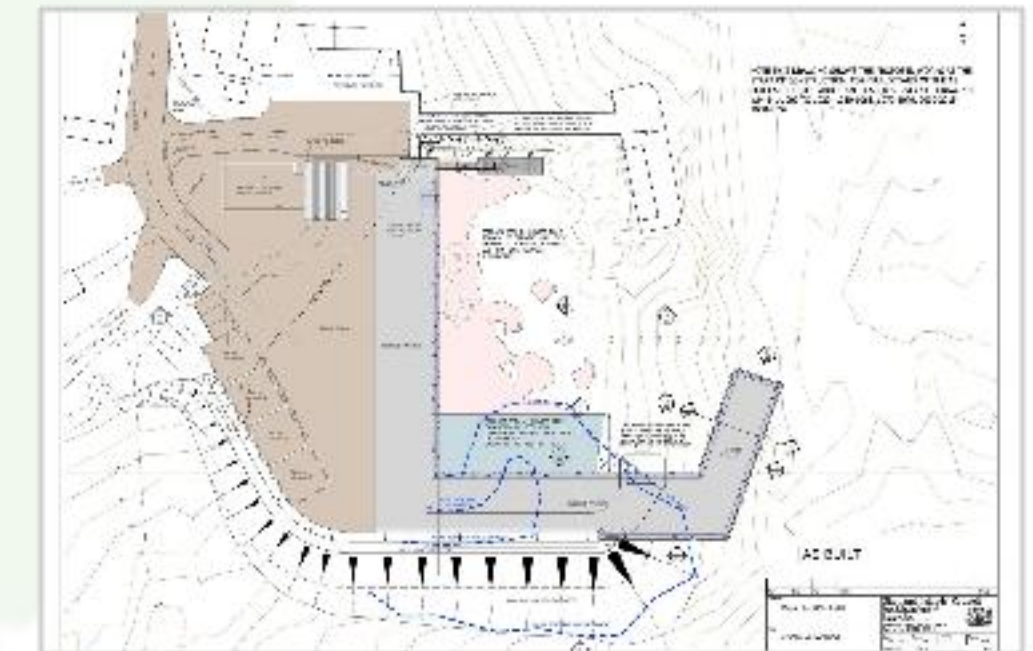
Walls is located to the west of mainland Shetland facing south. It is located within a bay sheltered by outlying islands and provides the terminal for the freight and passenger ferry services to the island of Foula further to the west. The pontoon berth is further protected by a 120m long breakwater to its south which forms a harbour for other small vessels.

Structures and Condition

Vessels berth against a pontoon that is held in position by two piles, with passengers gaining access by using a canting brow from the quayside. The vessel moves alongside the quay for freight loading.

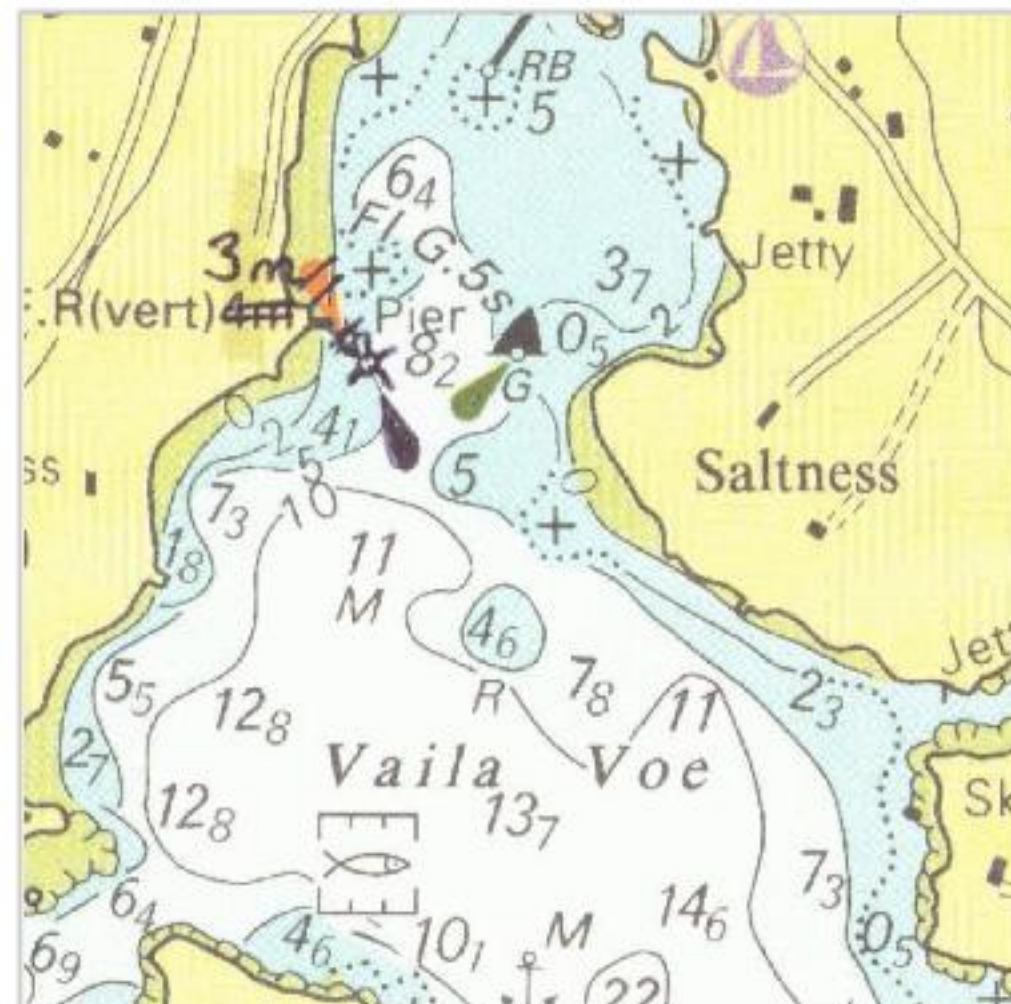
No ferry was observed on the berth.

The terminal was found to be in serviceable condition.



Timeframe

Walls ferry terminal was constructed in 2014.



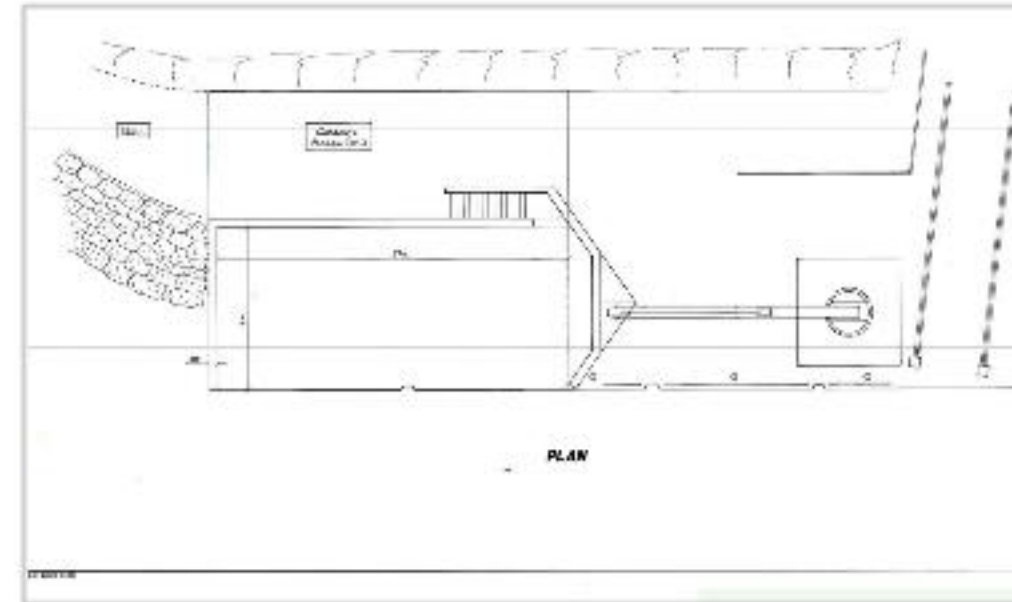
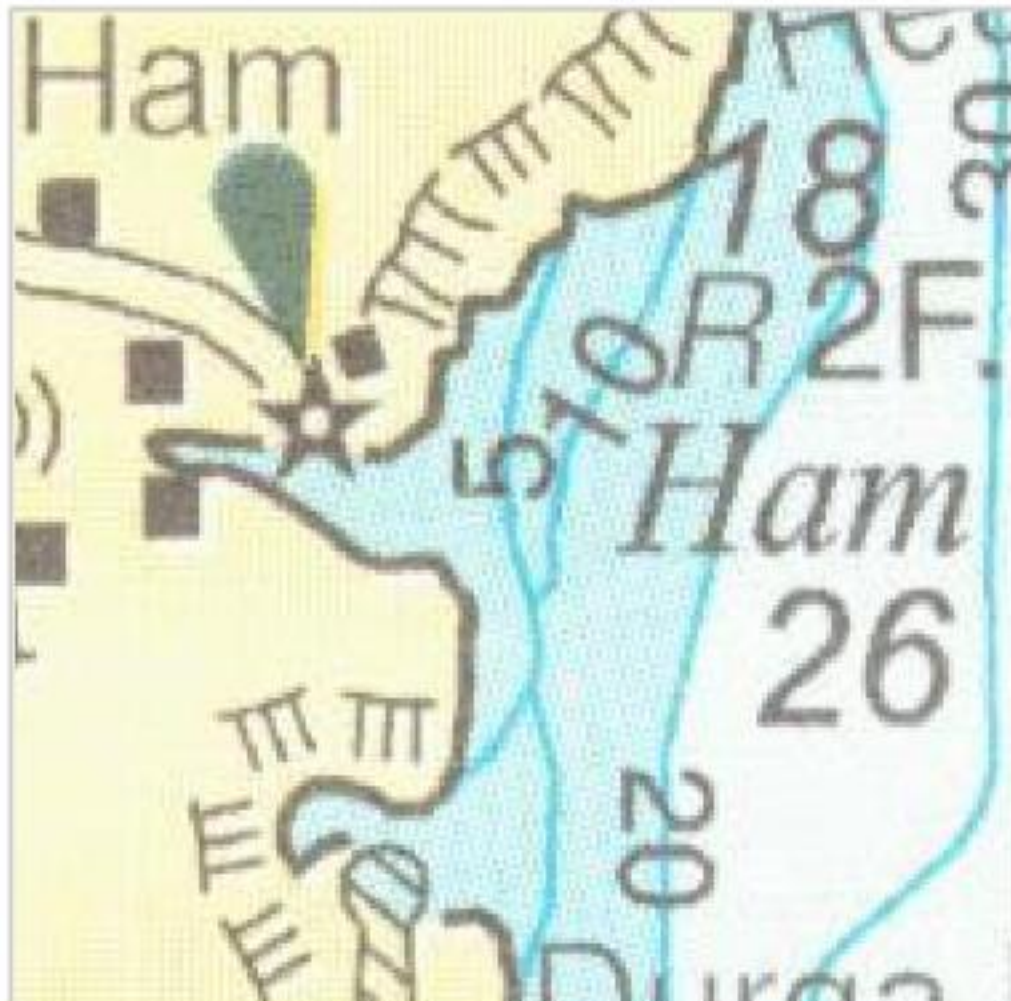
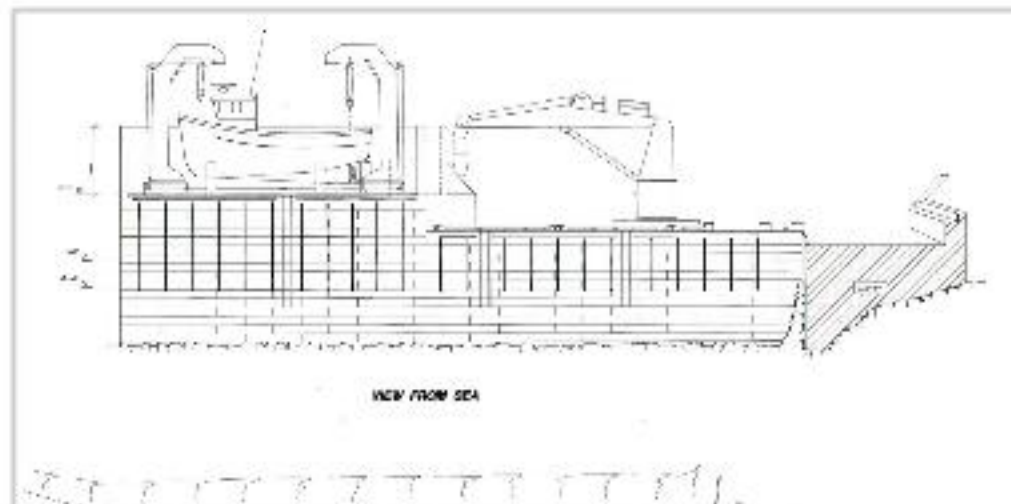
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Foula



Terminal Overview

Ham is located on the eastern side of the island of Foula and provides the terminal for the freight and passenger ferry service to Walls on mainland Shetland to the east. A 40m long breakwater extends across the entrance of the small inlet to give some protection to the berth on the inner face. However, it is an exposed location and swells still enter the harbour.



Structures and Condition

The ferry berths against a concrete quay and is lifted out of the water on davits on the northern side of the inlet in times of rough weather. The existing ferry vessels can therefore overnight here safely.

This terminal was not visited.

It is understood that the terminal is in serviceable condition.



Timeframe

Foula ferry terminal was originally constructed many years ago. The outer pier was widened in 1985. The crane pier was constructed in 1992 and the raised davit pier built in 1994. The basin was dredged in 2008.



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West Burrafirth



Terminal Overview

West Burrafirth is located to the west of mainland Shetland, facing northwest and provides the terminal for ferry services to the island of Papa Stour further to the northwest. At the head of an inlet a small harbour gives further protection to the RoRo ferry berth from north westerly waves. The existing ferry vessels can overnight here safely.



Structures and Condition

Vessels berth against the inside of a concrete piled jetty that extends 35m from the end of the linkspan. The jetty is fronted with vertical and horizontal D section rubber fenders and is also used for other activities.

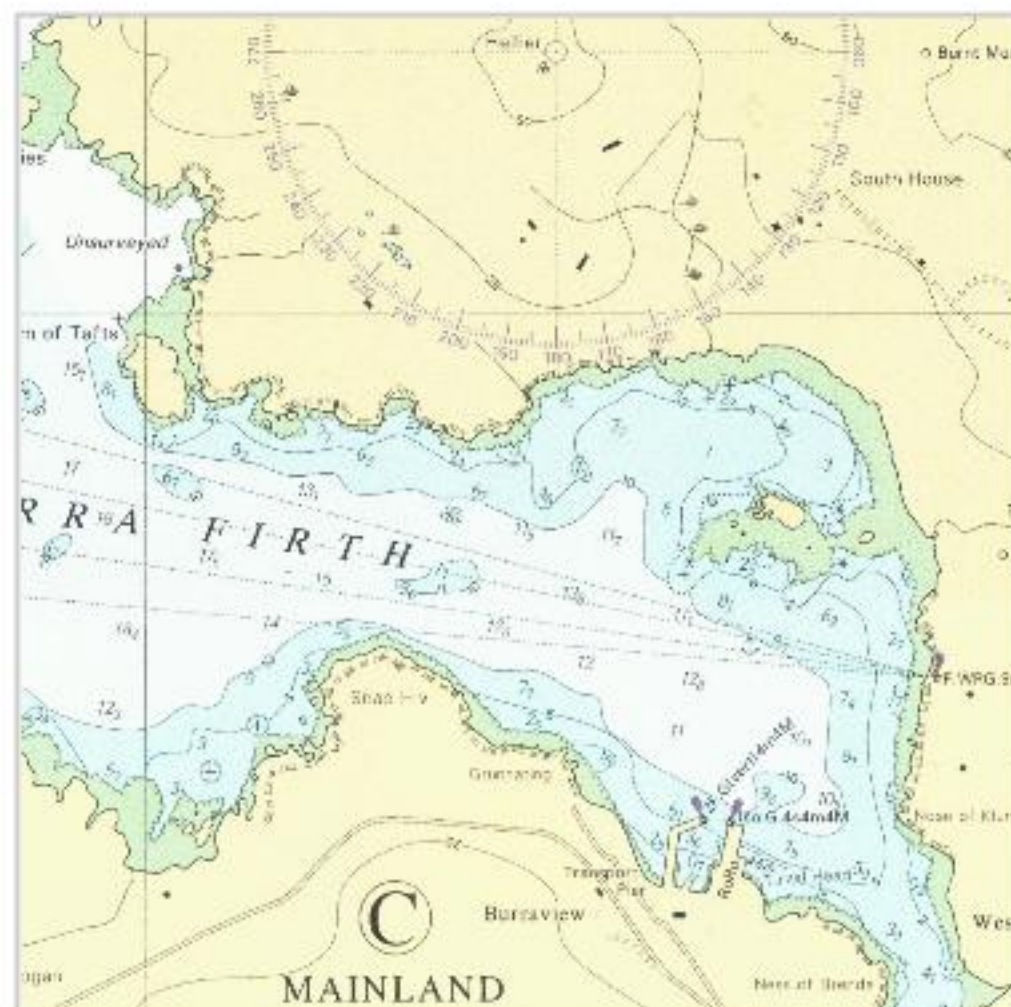
The 24m long by 7m beam ferry "SNOLDA" was observed on the berth. No dedicated parking is marked for vehicles waiting for the ferry, although there is ample space on the approach road to the berth.

The terminal was found to be in serviceable condition.



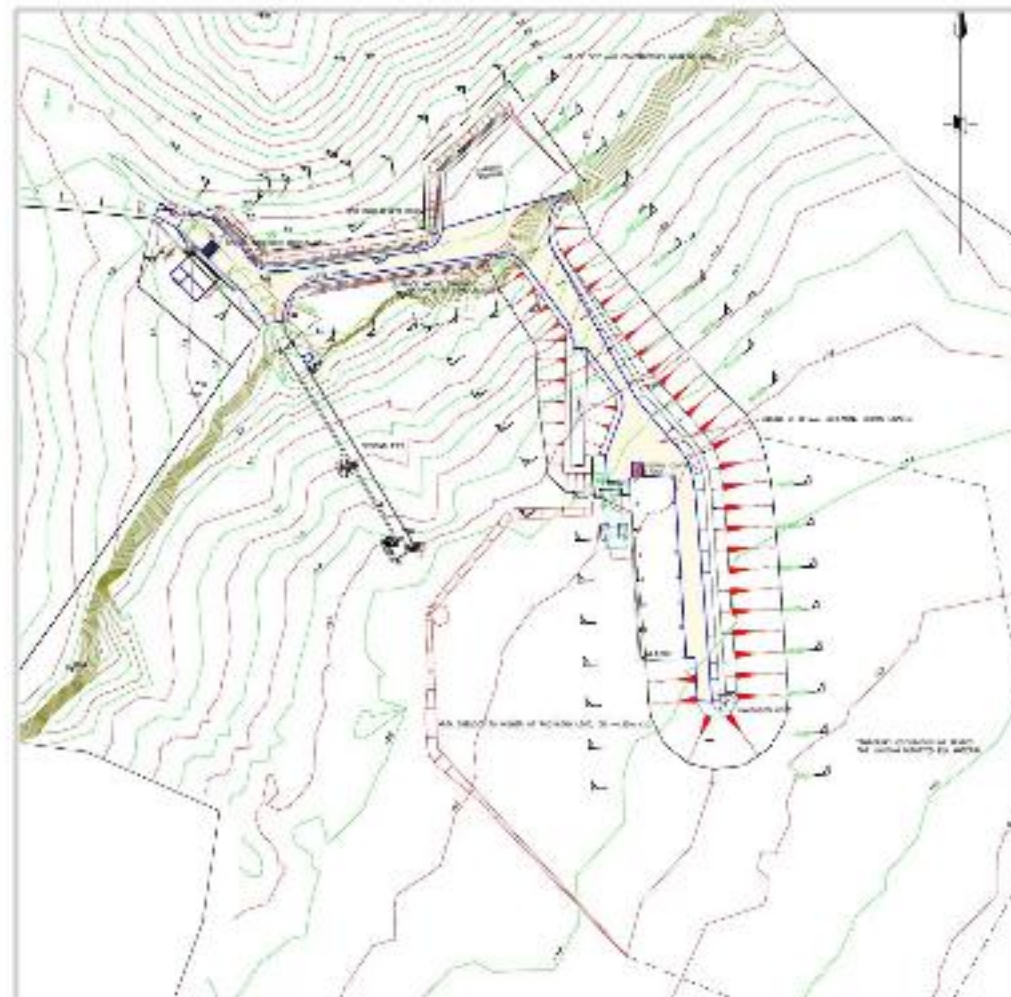
Timeframe

West Burrafirth ferry terminal was constructed in 2004 using the recycled linkspan from Ulsta, Toft or Fetlar, the other being kept as a spare. Cathodic protection was added in 2012.



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Papa Stour



Terminal Overview

Papa Stour ferry terminal is located on a south facing coast at the east of the island and operates the ferry service West Burrafirth on mainland Shetland to the east. A 130m long breakwater forms a 50m long sheltered RoRo ferry berth giving protection from easterly waves.



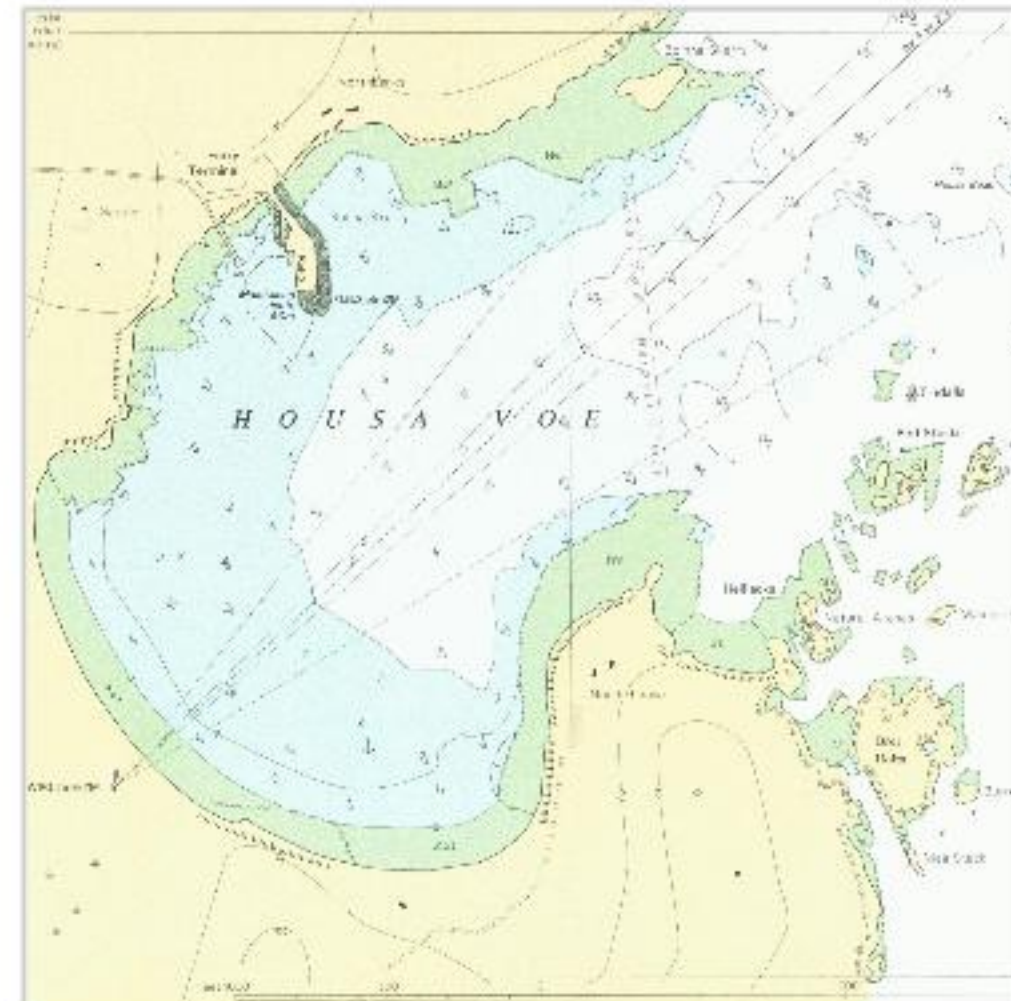
Structures and Condition

Vessels berth against a concrete jetty extending 27m from the end of the linkspan on the lee side of the rubble mound breakwater. The jetty is fronted with vertical and horizontal D section rubber fenders and is used for other activities.

The 24m long by 7m beam ferry "SNOLDA" was observed on the berth. No dedicated parking is marked for vehicles waiting for the ferry, although there is ample space in the approach to the berth.

Plenty of freely available information and refreshments were available in the terminal building.

The terminal was found to be in serviceable condition.



Timeframe

Papa Stour ferry terminal was originally constructed in 2003 using the recycled linkspan from Ulsta, Toft or Fetlar, the other being kept as spare. Cathodic protection was added in 2012.

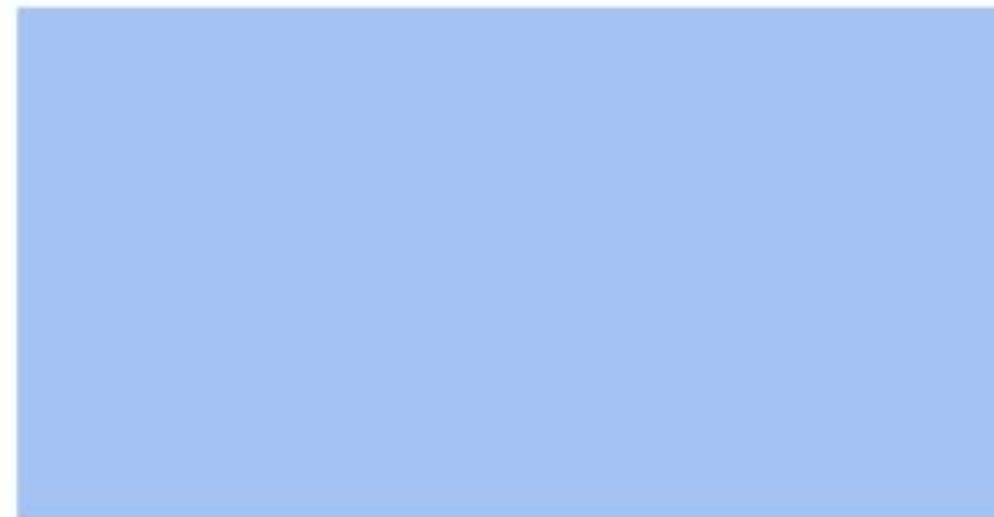


Grutness



Terminal Overview

The Grutness terminal is located near Sumburgh at the south of mainland Shetland on the southern side of an east facing bay. It provides the terminal for the freight / passenger ferry services to Fair Isle further to the south. The terminal is exposed to waves from the northeast.



Structures and Condition

Vessels berth against a solid quay that has been constructed from a concrete grillage with a rock infill. The quay extends approximately 50m from the shoreline and is protected by a rubble and armourstone revetment on its outer northeastern side. The quay is faced with a row of vertical D section rubber fenders.

No vessel was observed on the berth.

The terminal was found to be in serviceable condition.



Timeframe

Grutness ferry terminal was originally constructed several years ago, date unknown.

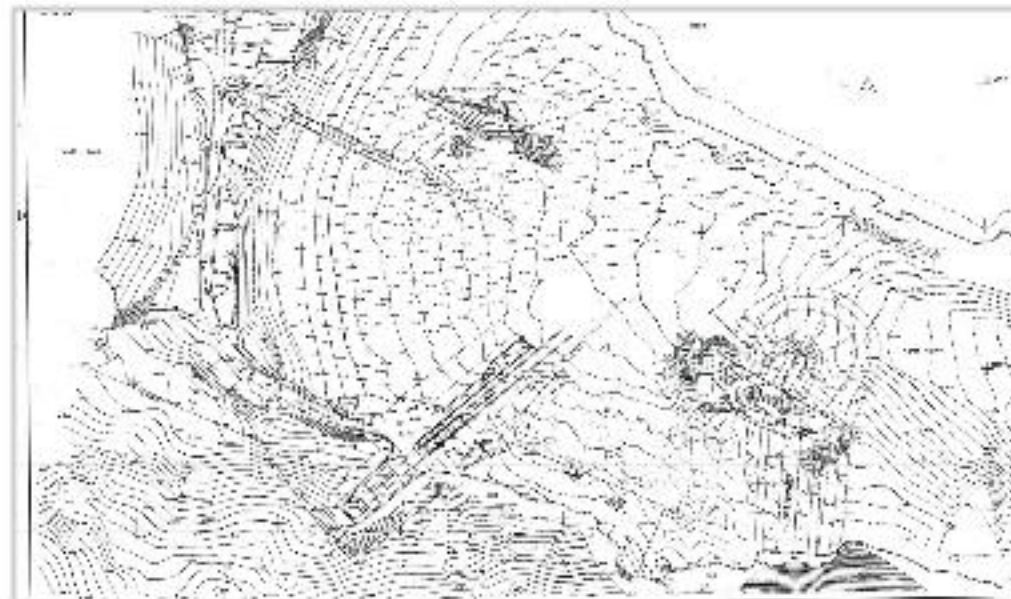


Fair Isle



Terminal Overview

The Fair Isle terminal is located in a north facing bay on the eastern side of the island and provides the terminal for passenger and freight ferry service to mainland Shetland to the north. A 175m long breakwater fills part of the entrance to the bay to give protection from northerly waves.

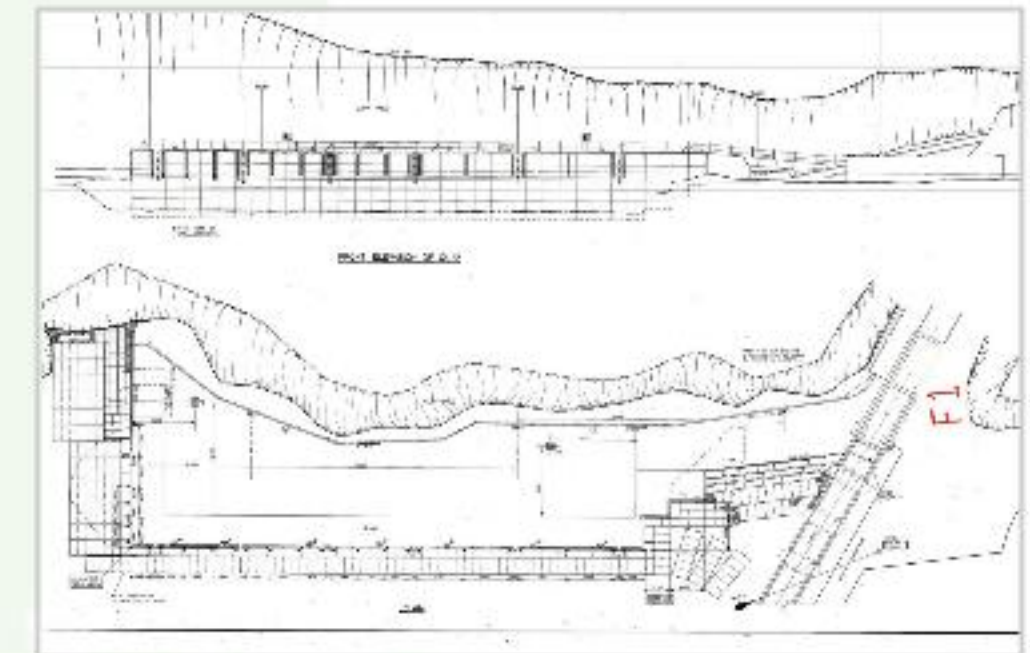


Structures and Condition

Vessels berth against a 60m long concrete quay in the lee of the rubble mound breakwater. However, this is an exposed location and the ferry vessel is removed from the water on a slipway cradle when rough weather is expected. This means that existing ferry vessels can overnight here safely.

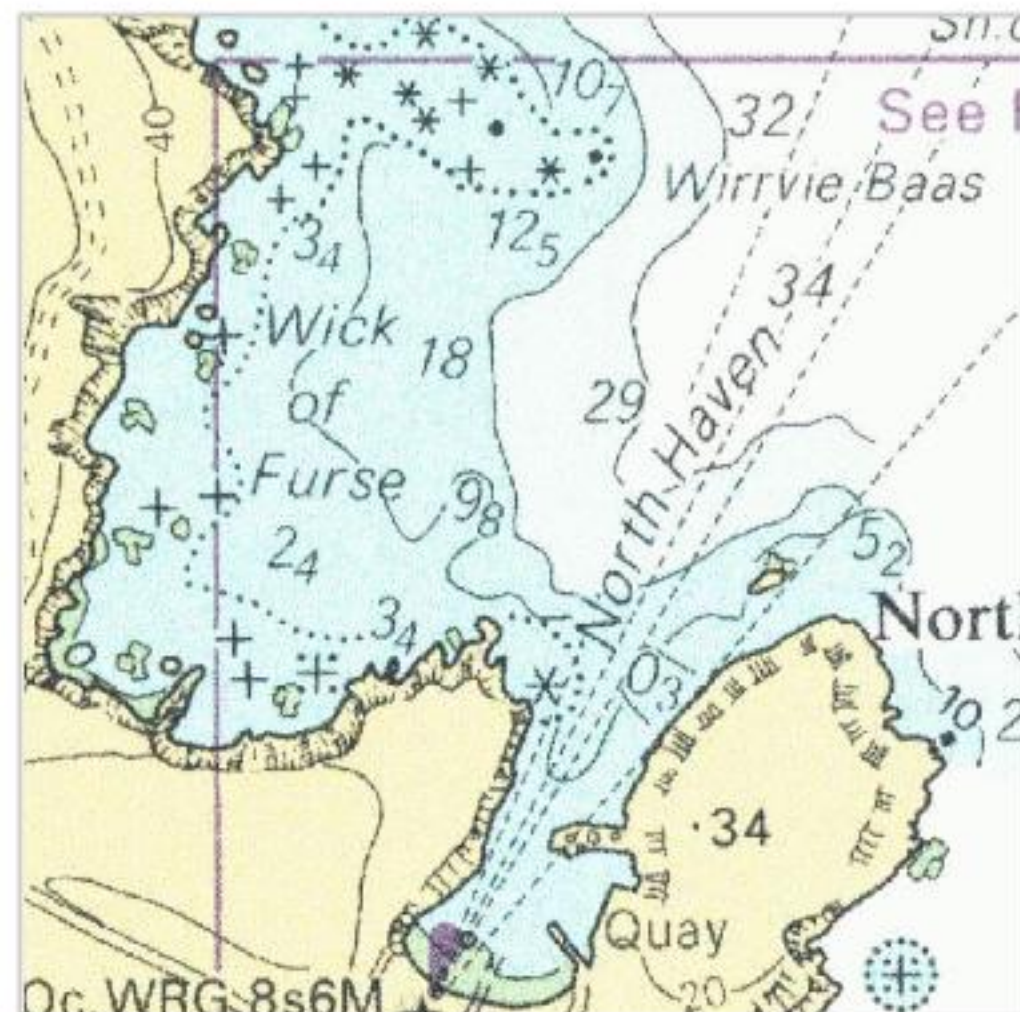
No vessel was observed on the berth.

It is understood that the terminal is in serviceable condition.



Timeframe

Fair Isle ferry terminal was originally constructed in the 1960s. The slipway was constructed in 1981 and the new pier and breakwater in 1992 / 1993.



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SUMMARY



	Terminal	Location	Berth Type	Current Main Vessel	Current Vessel Size			Construction Dates		
					LoA	Beam	Draught	Initial	Refurbish	Projected*
1	Toft	Mainland	Large Linkspan	Daggri	65.36	13.8	3.7	2003		2028
2	Ulst	Yell	Large Linkspan	Daggri	65.36	13.8	3.7	2003		2028
3	Gutcher	Yell	Small Linkspan	Bigga	33	10.1	3.85	1972	1996	2021
4	Belmont	Unst	Small Linkspan	Bigga	33	10.1	3.85	1972	1996	2021
5	Hamars Ness	Fetlar	Large Linkspan	Geira	30	9	2.61	2004		2029
6	Laxo	Mainland	Small Linkspan	Linga	36.21	10.8	3.19	1973	1996	2021
7	Vidlin	Mainland	Small Linkspan	Linga	36.21	10.8	3.19	1975		soon
8	Symbister	Whalsay	Small Linkspan	Linga	36.21	10.8	3.19	1973	1996	2021
9	Skerries	Skerries	Small Linkspan	Filla	35.5	9	3.05	1985		soon
10	Lerwick	Mainland	Small Linkspan	Leirna	32.45	10.7	2	1974	1996	2021
11	Bressay	Bressay	Small Linkspan	Leirna	32.45	10.7	2	1974	1996	2021
12	Walls	Mainland	Non-linkspan	New Advance	9.8	4.05	1.72	2014		2039
13	Foula	Foula	Non-linkspan	New Advance	9.8	4.05	1.72	1985	1994	2019
14	West Burrafirth	Mainland	Small Linkspan	Snolda	24.4	7	3.36	2004		2029
15	Papa Stour	Papa Stour	Small Linkspan	Snolda	24.4	7	3.36	2003		2028
16	Grutness	Mainland	Non-linkspan	Good Shepherd	18.3	5.8	2.63	?		soon
17	Fair Isle	Fair Isle	Non-linkspan	Good Shepherd	18.3	5.8	2.63	1981	1992	2017

* Estimate of 25 years from previous work



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