

Photographic recording of Hawes Pier in advance of construction of a new lifeboat station and report on the watching brief on the groundworks for the new station.



Site of new lifeboat station on Hawes Pier looking East



4<sup>th</sup> April 2011

## **Introduction (Illus 1)**

The Royal National Lifeboat Institution (RNLI) proposes to construct a new lifeboat station on the Hawes Pier at South Queensferry. The planning consent for this development (08/01152/FUL) included a condition specifying the need for a photographic survey of the site as existing and a watching brief on all groundworks. The author undertook the photographic survey on 1<sup>st</sup> February 2011 and monitored the ground works on the 14<sup>th</sup>, 29<sup>th</sup>, 30<sup>th</sup>, 31<sup>st</sup> March and 1<sup>st</sup> April 2011 (Site Code SQF01), weather conditions varied between bright sunshine and showers and squally rain.

## **Historical Background (Illus 2, 3 and 4)**

Hawes Pier is B Listed and was designed by Rennie and Stevenson (1809-1818), prior to the construction of the Forth Road Bridge in 1964 it was used by the ferry across the River Forth. Once known as 'New Halls' there may have also been earlier pier/ferry associated structures on the site.

From a brief cartographic analysis of the site the earliest map that may show some sort of landing stage is General Roy's military survey of 1747-55 (Illus 2) but it is not until the Reform Act plan of 1832 that 'Newhalls Pier' is first depicted (Illus 3), this is followed by a better scaled version on the First Edition Ordnance Survey of 1860 (Illus 4).

## **Watching Brief**

### **14<sup>th</sup> March 2011 (Illus 12, 18)**

As the first part of the monitoring exercise the digging of an engineer's test pit was monitored on Monday 14<sup>th</sup> March 2011. This located natural sandstone bedrock at a depth of 2.07m below the modern level of the pier surface sealed beneath a dump of loose sandstone rubble that was sealed by a layer of stone setts which was then sealed beneath tarmac (Illus 18). As it was clear that the central wall of the 'B' listed pier was built on top of this rubble dump the engineers opted to redesign their foundation plan.

### **29<sup>th</sup> March 2011 (Illus 6, 13-16)**

The initial stripping of the tarmac and setts located an upright hollow timber post (0.20m wide) on the Western side of the pier. Whilst being recorded this post was seen to be matched by another two such posts (also 0.20m wide) in the eastern riverward side of the pier and in front of the alcoves in the central pier wall. There was a wider sandstone wall foundation 6.5m long and one course deep (0.12m) directly in front of the alcoves (

### **30<sup>th</sup> March 2011 (Illus 18 and 19)**

The new foundation design involved the digging of 17 pits to take circular concrete rings that would then have concrete poured into them with the aim of supporting the ground beam for the new lifeboat station. The digging of the first two of these pits at the south end of the footprint of the building located natural sandstone bedrock at only 0.70m below the surface of the pier.

### **31<sup>st</sup> March and 1<sup>st</sup> April 2011 (Illus 20-23)**

The monitoring of the excavation of the remaining pits at the South end of the pier located bedrock at 0.80m gradually getting deeper the further North that excavation progressed until a steep shelf was encountered in pit 5 and bedrock dropped to 2m below modern pier level. In all the pits bedrock was sealed by the dump of loose sandstone rubble that was encountered in the initial test pit.

### **Discussion and Conclusions (Illus 24)**

Prior to the construction of the Hawes Pier in the 19<sup>th</sup> century it would appear that a natural shelf of sandstone bedrock projected out into the River Forth at this point. Several similar projections of bedrock are still visible along this part of the river. There was no sign of any earlier pier or landing stage construction of either timber or stone although it is possible that such a structure was the origin of the deep dump of sandstone rubble that makes up the foundations of the pier. The upright timber posts located after the initial site strip are difficult to interpret but may relate to a former fence line across the pier. No finds were recovered.

### **Acknowledgements**

The author would like to thank Richard Kennedy of Mansell for his help and interest during this monitoring exercise.

## Illustration List

Illus 1 Location of site of new lifeboat station on Hawes Pier, Queensferry (based on Ordnance Survey map Crown Copyright 2011. All Rights Reserved. Licence number 100049628)

Illus 2 General Roys Military Survey of 1750 possible early landing stage indicated by red circle (© Trustees of National Library of Scotland)

Illus 3 Reform Act map of 1832 (© Trustees of National Library of Scotland)

Illus 4 Newhalls Pier as shown on First Edition Ordnance Survey map of 1860 (© Trustees of National Library of Scotland)

Illus 5 Foot print of new lifeboat station in relation to pier, lighthouse and existing buildings Scale 1:400

Illus 6 Location of recorded upright timber posts (posts not to scale) Scale 1:400

Illus 7 Monitored foundation pits Scale 1:400

Illus 8 Site of new lifeboat station on Hawes Pier prior to commencement of site works

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Illus 11 Detail view of site of proposed new lifeboat station looking North

Illus 12 Lighthouse at Southern end of central pier wall

Illus 13 Excavation of engineers test pit (17 on Illus 5), digger bucket is resting on sandstone bedrock

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Illus 22 Sandstone bedrock visible after digging of pit 13 (tooth marks on surface of bedrock)

Illus 23 Bedrock visible in pit 11

Illus 24 General view of pits 5, 6, 7, 9 and 11 looking South West from pier wall

Illus 25 Natural Sandstone rock projecting into River Forth visible just to West of Hawes Pier looking North West, Forth Road Bridge in background

## Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME:	Hawes Pier, South Queensferry
PROJECT CODE:	SQF01
PARISH:	Dalmeny
NAME OF CONTRIBUTOR(S):	Derek Hall
NAME OF ORGANISATION:	Derek Hall, archaeologist and ceramic specialist
TYPE(S) OF PROJECT:	Photographic record of site and watching brief
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Pier
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NT
START DATE	1 <sup>st</sup> February 2011
END DATE	1 <sup>st</sup> April 2011
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	A photographic record of the proposed location of a new lifeboat station on the 'B' Listed Hawes Pier was undertaken followed by the monitoring of all groundworks. Sandstone bedrock was encountered below a dump of loose sandstone rubble that formed the core of the pier. Bedrock varied in depth from 0.70m below modern ground level to 2.07m at the Northern end of the development area. No finds were recovered.
PROPOSED FUTURE WORK:	
SPONSOR OR FUNDING BODY:	RNLI
CAPTIONS FOR ILLUSTRS	N/A
ADDRESS OF MAIN CONTRIBUTOR:	34 Glenfarg Terrace, Perth, PH2 0AP
ARCHIVE LOCATION (intended)	NMRS
EMAIL ADDRESS:	Derek.hall1@blueyonder.co.uk

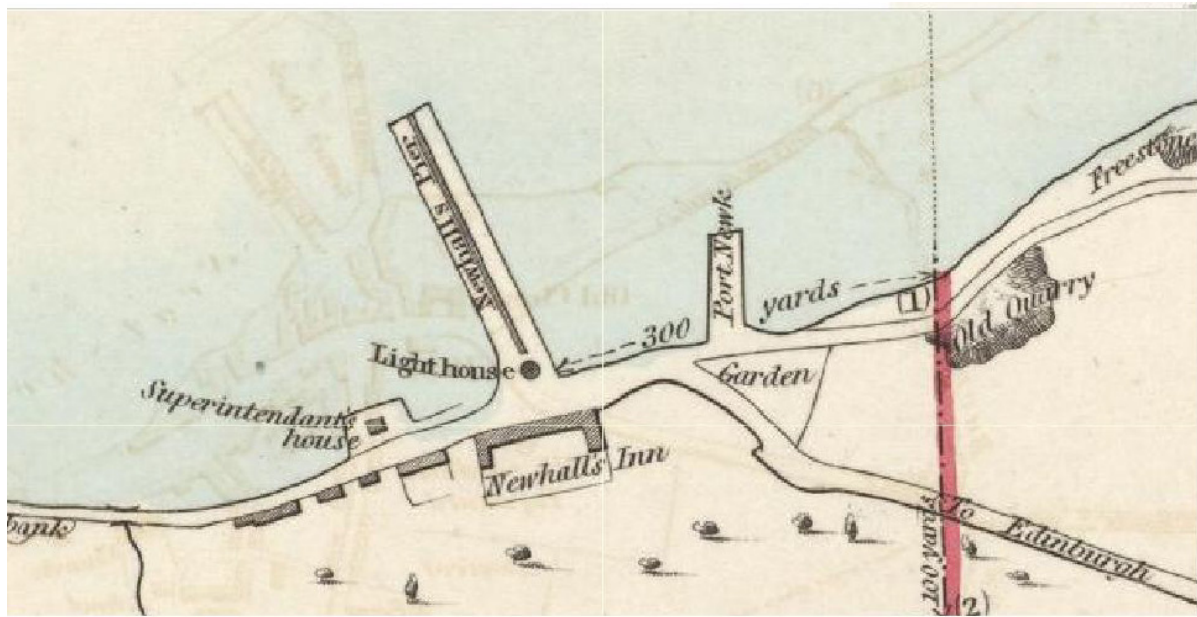


Illus 1 Location of site of new lifeboat station on Hawes Pier, Queensferry (based on Ordnance Survey map Crown Copyright 2011. All Rights Reserved. Licence number 100049628)

Roy Map - zoom out to display Roy Map Index

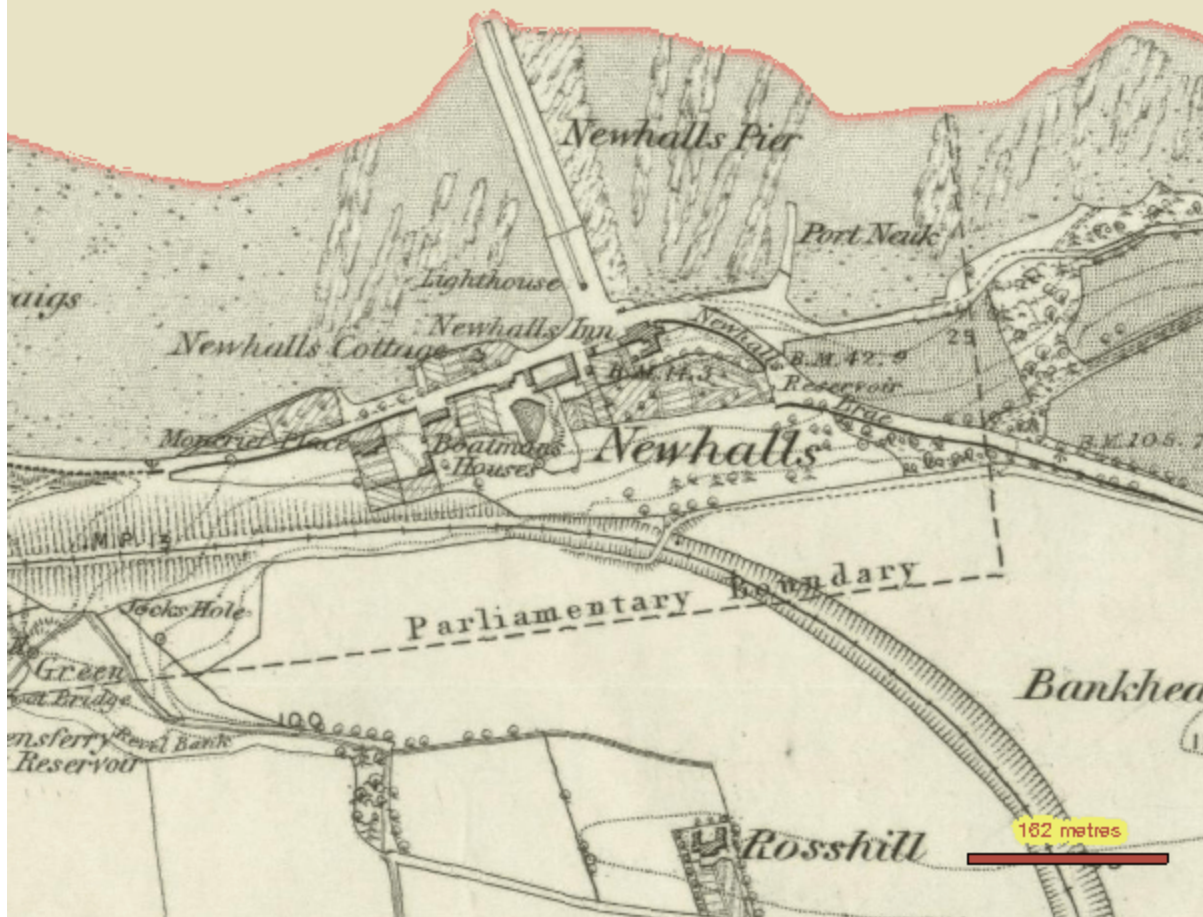


Illus 2 General Roy's Military Survey of 1747-55 showing possible early landing stage indicated by red circle (© Trustees of National Library of Scotland)



Illus 3 'Newhalls Pier' on the Reform Act map of 1832 (© Trustees of National Library of Scotland)

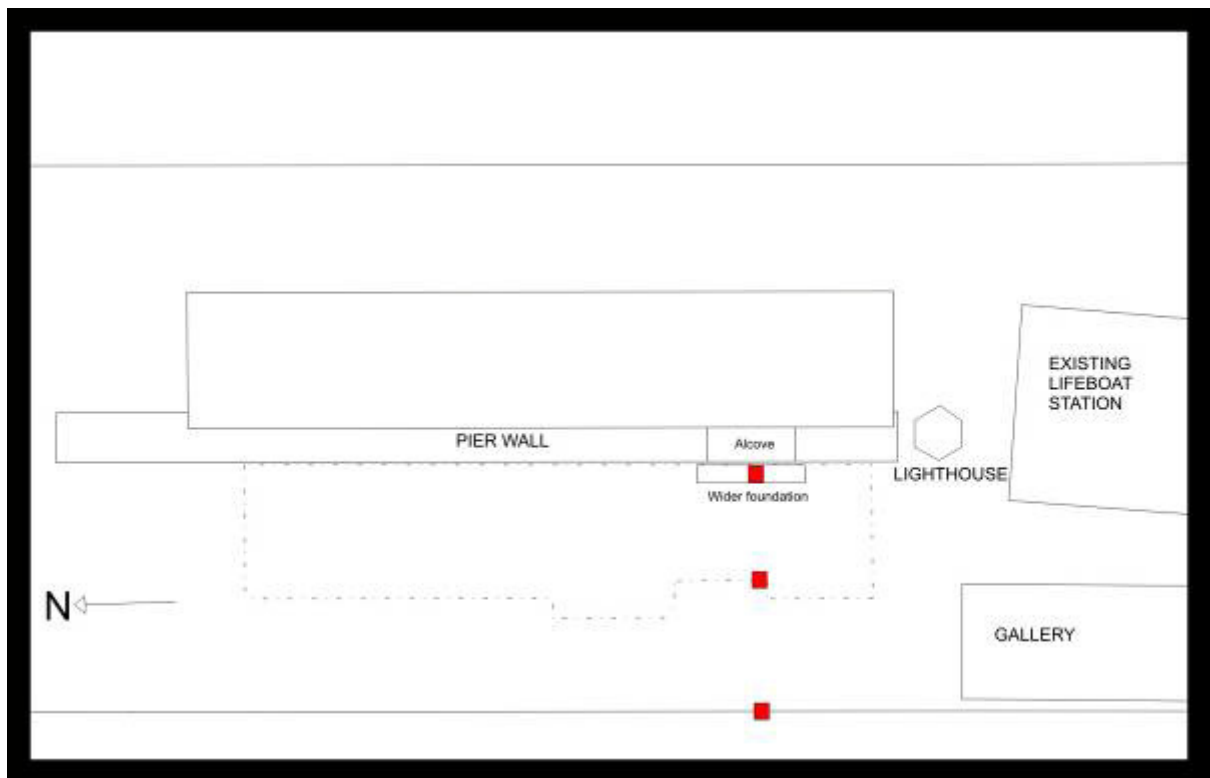
OS town plans - zoom out to display smaller-scale 1920s maps



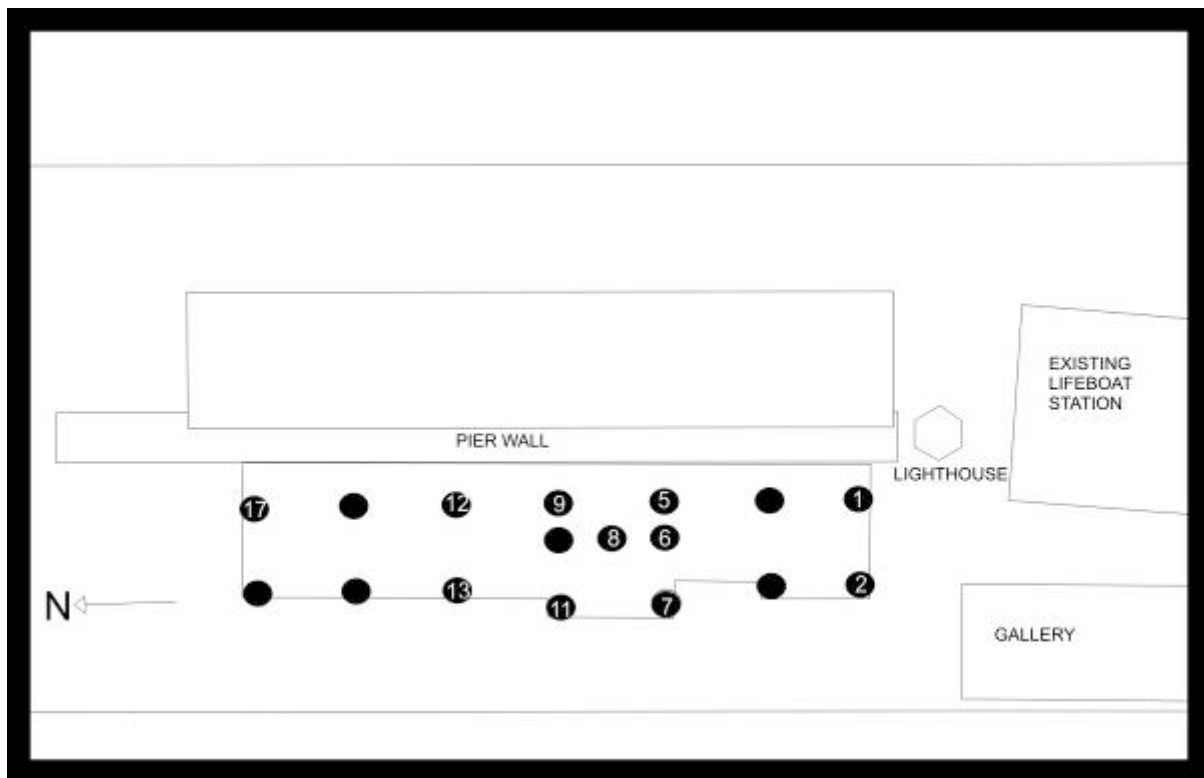
Illus 4 Newhalls Pier as shown on First Edition Ordnance Survey map of 1860 (© Trustees of National Library of Scotland)



Illus 5 Foot print of new lifeboat station in relation to pier, lighthouse and existing buildings Scale 1:400



Illus 6 Location of recorded upright timber posts (posts not to scale), footprint of new building indicated by dashed line Scale 1:400



Illus 7 Monitored foundation pits Scale 1:400

Depth of bedrock below modern pier surface

1. 0.80m
2. 0.70m
5. 0.80m
6. 0.90m
7. 0.80m
8. 1.10m
9. 1.90m
11. 0.90m
12. 2m
13. 1.40m
17. 2.07m



Illus 8 Site of new lifeboat station on Hawes Pier prior to commencement of site works



Illus 9 General view of site of new lifeboat station at Hawes Pier with Forth Railway Bridge in background



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Illus 11 Detail view of site of proposed new lifeboat station looking North



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Illus 15 Second upright hollow timber post sitting in wider sandstone wall foundation adjacent to alcove in harbour wall looking North



Illus 16 Third upright hollow timber post visible in riverward face of pier looking North



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