

AIRI/01



MOSSETBURN OVERBRIDGE, INVERERNE ROAD, FORRES

HISTORIC BUILDING SURVEY OF A WWII PILLBOX
HBR (LEVEL 1)

commissioned by Bam Nuttall, on behalf of Network Rail

16/01013/APP

September 2016

MOSSETBURN OVERBRIDGE, INVERERNE ROAD, FORRES

HISTORIC BUILDING SURVEY OF A WWII PILLBOX HBR (LEVEL 1)

commissioned by BAM NUTTALL, on behalf of NETWORK RAIL

16/01013/APP

September 2016

project info

HA JOB NO. AIRI/01
NGR NJ 0339 5922
PARISH Forres
LOCAL AUTHORITY Moray
OASIS REF. headland1-261315

project team

PROJECT MANAGER Edward Bailey
AUTHOR Donald Wilson
FIELDWORK Donald Wilson
GRAPHICS Beata Wieczorek-Olaksy, Mano Kapazoglou
APPROVED BY Edward Bailey – Project Manager



 **HEADLAND
ARCHAEOLOGY**
© 2016 by Headland Archaeology (UK) Ltd



SCOTLAND

Headland Archaeology
13 Jane Street, Edinburgh EH6 5HE

0131 467 7705

scotland@headlandarchaeology.com

www.headlandarchaeology.com

PROJECT SUMMARY

An historic building survey was undertaken by Headland Archaeology at Mossetburn overbridge, Forres of a WW11 Type 22 pillbox. The survey comprised a descriptive and photographic survey of the structure prior to its demolition as part of the upgrade of the Aberdeen to Inverness rail link. The survey identified that the structure was a typical Type 22 pillbox of hexagonal plan with rifle loopholes in five of the walls and an entrance and small opening on the remaining wall. The walls of the pillbox were constructed of large stone blocks covered with a thick concrete roof topped with turf. The internal area was divided into two areas separated by a concrete dividing wall that incorporated a Y-shaped blast wall at the entrance. Limited internal fixtures and fittings were recorded

CONTENTS

1	INTRODUCTION	1
2	SITE LOCATION AND DESCRIPTION	1
3	AIMS & OBJECTIVES	3
4	METHODOLOGY	3
	4.1 ARCHIVE ASSESSMENT	3
	4.2 HISTORIC BUILDING RECORDING	3
	4.3 PHOTOGRAPHIC SURVEY	3
	4.4 RECORDING	3
5	RESULTS	3
	5.1 INTRODUCTION	3
	5.2 PILLBOX SURVEY	3
6	DISCUSSION	5
7	REFERENCES	5
8	APPENDICES	7
	APPENDIX 1 PHOTOGRAPHIC REGISTER	7
	APPENDIX 2 DISCOVERY AND EXCAVATION IN SCOTLAND (DES) ENTRY	8

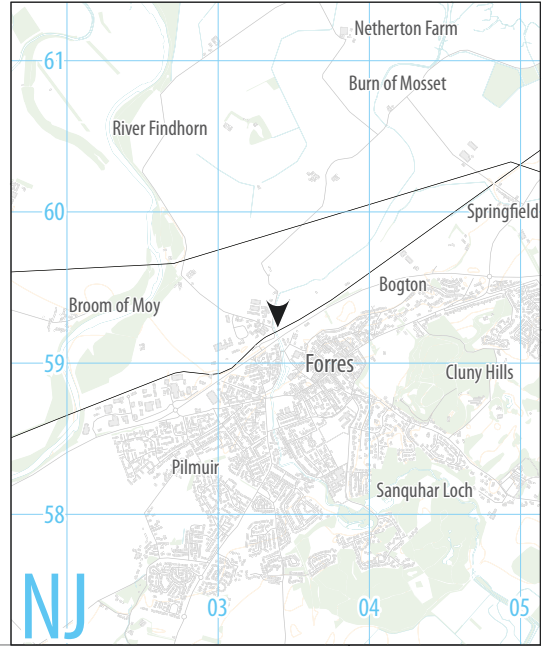
LIST OF ILLUSTRATIONS

ILLUS 1 SITE LOCATION	VIII
ILLUS 2 PLAN AND ELEVATIONS OF THE PILLBOX	2
ILLUS 3 GENERAL VIEW OF THE PILLBOX FACING WEST	4
ILLUS 4 DETAILED VIEW OF THE UNDERSIDE OF THE CONCRETE ROOF	4
ILLUS 5 DETAIL OF THE ENTRANCE BLAST WALL FACING NORTH-WEST	4
ILLUS 6 DETAIL OF THE LOOPHOLE ON THE NORTH FACING WALL	4
ILLUS 7 DETAIL OF THE STEPPED OPENING OF THE LOOPHOLE	4
ILLUS 8 VIEW OF THE SOUTHERN INTERNAL AREA OF THE PILLBOX	5
ILLUS 9 DETAIL OF THE INTERNAL CONCRETE DIVIDING WALL	5
ILLUS 10 GENERAL VIEW SHOWING THE SIGHTLINES OF THE PILLBOX TO THE EAST	5
ILLUS 11 GENERAL VIEW SHOWING THE SIGHTLINES OF THE PILLBOX TO THE WEST	5

AIRI/01
 Aberdeen to Inverness
 Rail Improvements
 Forres
 Moray

0 200km
 1:10,000,000 @ A4

Contains OS data © Crown copyright and database right 2016



0 20m
 1:1,000 @ A4

KEY
 pillbox

HEADLAND
ARCHAEOLOGY

SCOTLAND

13 Jane Street
 Edinburgh EH6 5HE
 0131 467 7705
www.headlandarchaeology.com

ILLUS 1 Site location

MOSSETBURN OVERBRIDGE, INVERERNE ROAD, FORRES

HISTORIC BUILDING SURVEY OF A WWII PILLBOX

HBR (LEVEL 1)

1 INTRODUCTION

Headland Archaeology Ltd was commissioned by Bamm Nuttall on behalf of Network Rail to undertake a Level 1 (Historic England 2016) Historic Building Survey of a WWII pillbox located at Mossburn Overbridge, Invererne Road, Forres, Moray. The work is related to the Aberdeen to Inverness Rail Improvement Scheme.

Full planning permission for the rail upgrade was granted by Moray Council (App.no.16/01013/APP) subject to a number of conditions, including one relating to archaeological works. This condition required an appropriate level of recording be undertaken prior to the development. The planning authority (Moray Council), as advised by the Aberdeenshire Council Archaeology Service requested that a historic building survey (level 1) be undertaken of the interior and exterior of the structure prior to its demolition.

In order to fulfil this condition a Written Scheme of Investigation (WSI) was prepared by Headland Archaeology (2016) on behalf of Bamm Nuttall; setting out the proposed strategy for archaeological mitigation.

The WSI was submitted to and agreed with Aberdeenshire Council Archaeology Service who advises the Local Planning Authority on archaeological matters. This report details the results of the work.

2 SITE LOCATION AND DESCRIPTION

The site is located immediately east of the Burn of Mosset that runs along the east side of Invererne Road on the northern edge of Forres, Moray (NGR: NJ 0339 5922) (Illus 1). It is bounded to the south by the existing Aberdeen to Inverness railway and to the north by agricultural land. The whole area is situated in a small area of scrub

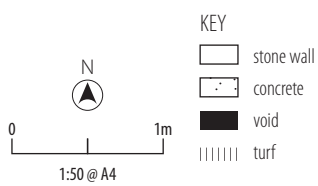
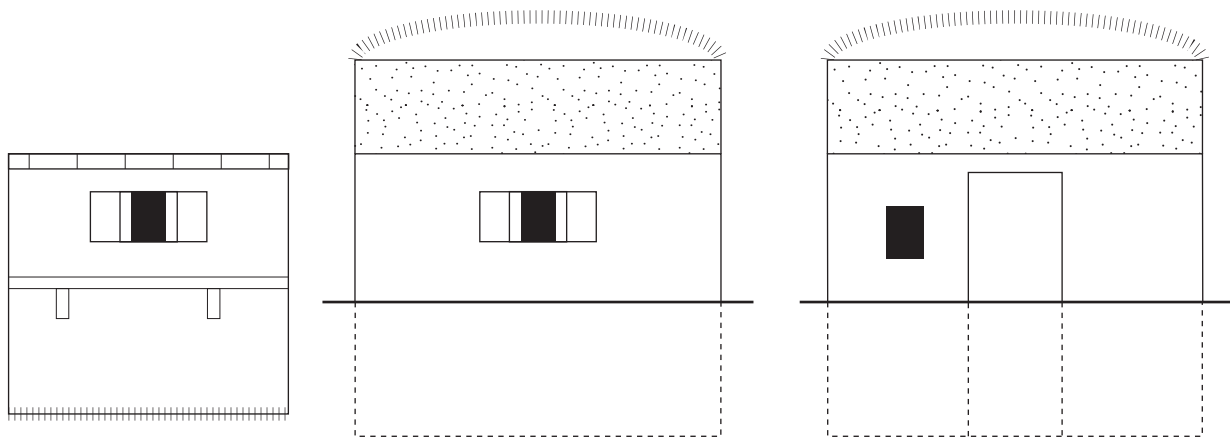
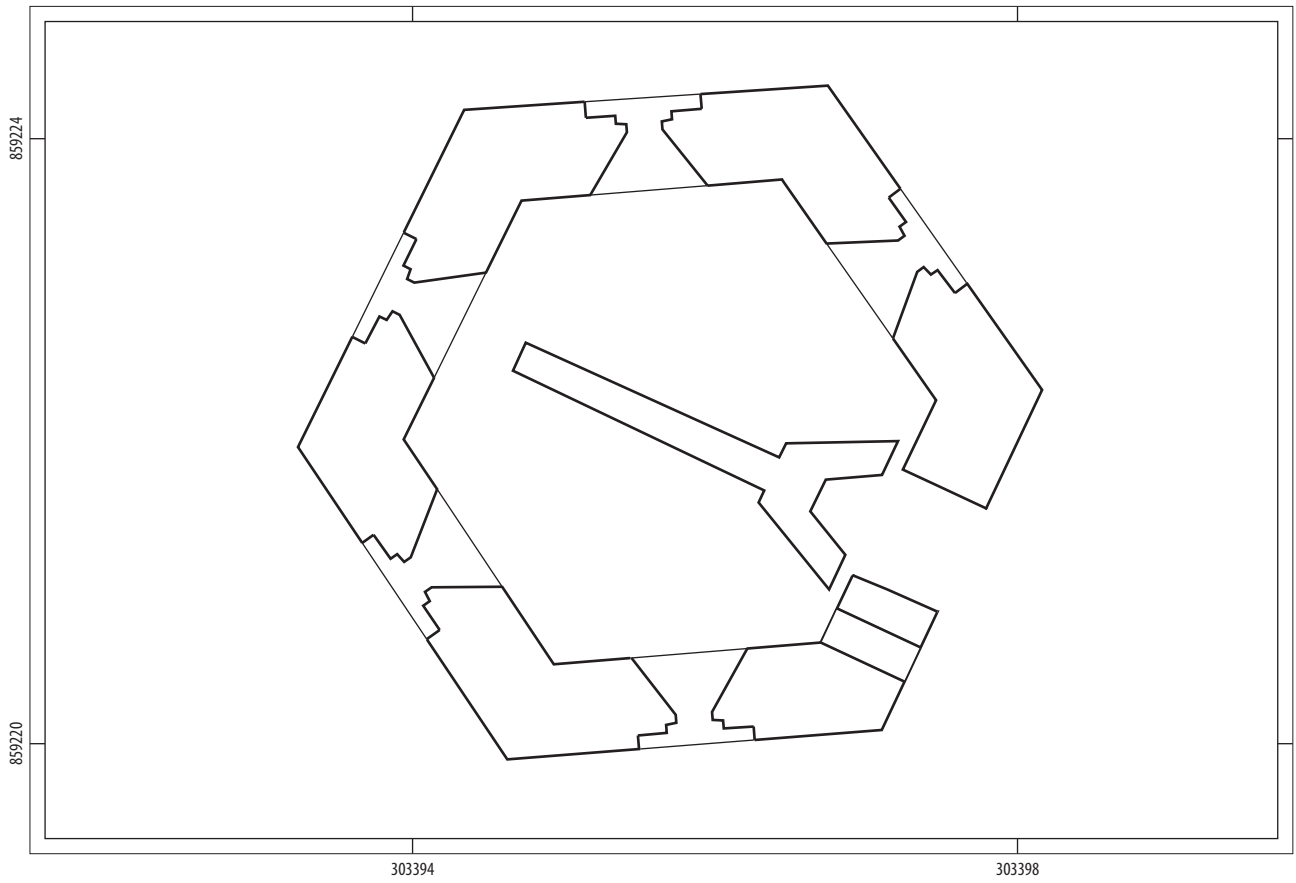
grass on low lying ground at approximately 10m OD, 2km south of Findhorn Bay and 5km from the Moray Firth.

The pillbox at Invererne Road represents part of a series of defensive positions designed and constructed during the 1940's as part of an effort to consolidate the defences of the country against a land attack from the German forces. In 1940 the Directorate of Fortifications was set up by the government to design and construct pillboxes at all defensive locations across the UK. Seven basic designs of pillbox were issued with the purpose of providing a simple fieldwork standard that could be constructed quickly. Most of the designs incorporated some of the following features (Pillbox Study Group online source):

- › Minimum of bullet /splinter proof protection
- › No attempt was made to provide living accommodation
- › Some designs were enhanced to Shell Proof standard
- › Simple blast walls to protect open entrances
- › External flat side walls with rectangular or polygonal shape

The common designs included standard door and loophole sizes making it easier to produce the prefabricated concrete walls and shuttering of the structures plus aid the speed at which they could be constructed. Due to the lack of some materials the construction of these structures would be dependent of the availability of materials in the local area. This led to many one off designs and changes in materials used.

The pillbox at Invererne Road has an entry in the Scottish National Records of the Historic Environment (NJ05NW 96) and the Moray Council Sites and Monuments Record (NJ05NW0093). The site is



ILLUS 2 Plan and elevations of the pillbox

one of a number of structures and features dating from WW1 in the local area. The most prominent of these was a grass airfield to the west of Forres close to Whiterow (Scottish NRHE: NJ05NW 97). Very little of the infrastructure of this airfield survives but a number of pillboxes associated with this airfield have been recorded in the Scottish NRHE. The records indicate that these were all constructed of brick and concrete (Scottish NRHE: NJ05NW 97.01 to 97.04). The location of the pillbox at Invererne Road was some distance from the airfield suggesting it was likely positioned to protect both the railway line (good sightlines for the railway were observed during the site visit) and the town rather than the airfield.

3 AIMS & OBJECTIVES

In line with the WSI the main objectives of the Historic Building Recording (Level 1) (English Heritage 2014 on line source) was:

To provide a basic record of the interior and exterior of the structure in its present state prior to any demolition or alteration. This was in order to provide an informed report that details the potential for further work or provide an adequate record of the structure. The recording comprised of a written description, annotated plans and photographic record.

In particular the survey focused on recording of all exposed internal and external walls relating to the structure and any features of interest relating to the structures purpose.

4 METHODOLOGY

4.1 ARCHIVE ASSESSMENT

A basic archive assessment was undertaken prior to fieldwork. This comprised the consultation of readily available photographic and documentary records. This included the National Map Library, The Moray Councils Historic Environment Record, the Scottish National Records of the Historic Environment and other public sources as appropriate.

4.2 HISTORIC BUILDING RECORDING

The survey utilised existing survey data. These have been annotated with any phasing information and points of detail. A short descriptive summary of the structure including assessment of the internal and external elevations/features and any other relevant constructional details has been undertaken.

4.3 PHOTOGRAPHIC SURVEY

A fully referenced photographic survey as a primary record of the existing building within its surroundings and any significant features of architectural interest were made using digital media. This has been used in conjunction with the written record and provides an interpretative account of the buildings use. Any specific architectural details were recorded photographically. A full photographic record can be found in Appendix 1.

4.4 RECORDING

All aspects of the work were undertaken in accordance with the current relevant Standards and Guidance for Recording Standing Buildings and Structures of the Chartered Institute for Archaeologists (CIfA 2014).

An overall site plan was recorded using survey data supplied by the client and related to the National Grid.

5 RESULTS

5.1 INTRODUCTION

The fieldwork was carried out on 24th August 2016 in clear and dry weather conditions. The structure was inspected and a photographic and written record was undertaken. The form of the pillbox at Invererne Road was typical of a Type 22 Pillbox, one of the seven basic designs developed by the Directorate of Fortifications in the 1940s.

5.2 PILLBOX SURVEY

The pillbox was hexagonal in plan with a single entrance and observation window on the south-east wall and rifle loopholes in the remaining five walls (Illus 2). The structure was cut below the existing ground surface leaving only the upper half of the walls exposed (Illus 3 photo). The external height of the pillbox including the 0.62m thick concrete roof was 1.6m. The internal height from the earthen floor to the ceiling was 1.82m making the whole structure including the roof 2.44m tall. The walls on all six sides had been constructed of large squared masonry blocks with peck-marked stone observed in some areas forming a wall 0.6m thick on all sides. The walls had been capped by the thick roof formed of prefabricated concrete sheets (Illus 4 photo). To the north side of the structure a layer of bricks had been placed at the top of the stone wall in order to form a level surface for the roof. The roof had also been topped with a thick layer of turf.

The entrance was 0.61m wide with a thick metal sheeted timber door, although it was unclear if this was the original fixture or had been a replacement in order to keep the public from entering the structure. Entry to the pillbox was limited due to an internal Y-shaped concrete blast wall forming additional protection to the internal spaces of the pillbox (Illus 5 photo). A small 0.35 x 0.25m observation window was located to the north-east side of the door. Due to the external elevation presenting only the upper half of the wall of the structure the window on this side was almost at ground level. Only the upper half of the door was exposed. It was not clear if this was originally open to the base of the door, possibly with steps as no evidence for this was identified.

The single loopholes found on the remaining five walls were identical (Illus 6 photo). The openings were all 0.78m x 0.32m in size and again only 0.42m above ground level on the external elevations, although internally they were 1.29m above the floor surface. The loopholes were essentially designed for riflemen and had internal splayed sides although these has been modified/reinforced with the insertion of a inset stepped stone design that featured steel plates to



ILLUS 3 General view of the pillbox facing west **ILLUS 4** Detailed view of the underside of the concrete roof **ILLUS 5** Detail of the entrance blast wall facing north-west **ILLUS 6** Detail of the loophole on the north facing wall **ILLUS 7** Detail of the stepped opening of the loophole



ILLUS 8 View of the southern internal area of the pillbox **ILLUS 9** Detail of the internal concrete dividing wall **ILLUS 10** General view showing the sightlines of the pillbox to the east **ILLUS 11** General view showing the sightlines of the pillbox to the west

the two stepped outer faces (Illus 7 photo). This narrowed the actual opening to a width of only 0.26m. The loophole lintels as with the surrounding walls were constructed of squared stone masonry.

The internal division of the pillbox comprised two compartments 1.62m wide (Illus 8 photo) divided by a 0.24m thick concrete wall (Illus 9 photo). Access to each side was gained by openings at each end. The dividing wall was a continuation of the Y-shaped blast wall located at the entrance. The two areas were very sparse with little surviving evidence of any original fittings. A few timber planks attached to the walls below the loopholes indicated the location of shelving that would have provided support for the rifles.

6 DISCUSSION

The survey identified the pill box as a typical Type 22 structure similar to many found across the UK dating from the 1940's. As with many of these structures the designs were modified to suit the availability of materials in the local area. In this case the use of large stone blocks for the main walls is unusual and these must have been sourced locally. The loophole design also seems to be a local variant although it seems from the records that the designs of these loopholes is the most common alteration found on these pillboxes. The roof and the internal blast wall were typical of the features recorded in these structures.

The location of the pillbox close to the railway line and to the north of Forres suggests it was placed there for protection of both. The

sightlines from within the structure gave good views along the line both to the east (Illus 10 photo) and west (Illus 11 photo) plus across the fields to the north. It may also have been placed there as additional cover to protect the airfield to the south-west.

7 REFERENCES

Archaeological Archives Forum (AAF) 2011 *Archaeological Archives A guide to best practice in creation, compilation, transfer and curation (2nd edn) [online document]* Institute for Archaeologists: Reading, available @ http://www.archaeologyuk.org/archives/aaf_archaeological_archives_2011.pdf

Chartered Institute for Archaeologists (CIfA) 2014 *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* [online document] Published December 2014 @ http://www.archaeologists.net/sites/default/files/CIfA&GBuildings_1.pdf

Headland Archaeology 2016 *Written Scheme of Investigation for Historic Building Recording* (Level 1) Unpublished client report (AIRI/01)

Historic England 2016 *Understanding Historic Buildings; A Guide to Good Recording Practice* [online document] Accessed August 2016 <https://www.historicengland.org.uk/images-books/publications/understanding-historic-buildings/>

Pillbox Study Group 'Types of pillbox' [online] Accessed August 2016 from <http://www.pillbox-study-group.org.uk/types-of-pillbox/>

8 APPENDICES

APPENDIX 1 PHOTOGRAPHIC REGISTER

FRAME	DIRECTION	DESCRIPTION	FRAME	DIRECTION	DESCRIPTION
AIRI-01	NW	External elevation of the SE facing wall	AIRI-26	NW	General view of the pill box
AIRI-02	N	External elevation of the SE facing wall	AIRI-27	SW	Internal detail of the gun loop on the S wall
AIRI-03	NW	External detail of the door and window on the SE facing wall	AIRI-28	W	View of the internal space to the south side of the structure
AIRI-04	W	External elevation of the SE facing wall	AIRI-29	E	View of the internal space to the north side of the structure
AIRI-05	NW	External elevation of the E facing wall	AIRI-30	NW	Detail of the entrance
AIRI-06	NW	External elevation of the E facing wall	AIRI-31	NW	Detail of the entrance
AIRI-07	E	External detail of the gun loop on the E facing wall	AIRI-32	NE	Internal detail of the gun loop on the N wall
AIRI-08	E	External detail of the gun loop on the E facing wall	AIRI-33	E	Internal elevation of the NE wall
AIRI-09	E	External detail of the gun loop on the E facing wall with scale	AIRI-34	SE	Internal elevation of the S wall
AIRI-10	SW	External elevation of the NE facing wall	AIRI-35	SE	Internal detail of the S and SE walls
AIRI-11	SW	External elevation of the N facing wall	AIRI-36	E	Internal detail of the central concrete wall
AIRI-12	S	External detail of the gun loop on the N facing wall with scale	AIRI-37	SE	Internal detail of the gun loop on the S wall
AIRI-13	S	External detail of the gun loop on the N facing wall	AIRI-38	E	Internal detail of the roof construction
AIRI-14	SE	External detail of the gun loop on the N facing wall	AIRI-39	NE	Internal detail of the gun loop of the N wall with scale
AIRI-15	SE	External elevation of the NW facing wall	AIRI-40	S	Internal detail of the gun loop on the S wall
AIRI-16	SE	External detail of the gun loop on the NW facing wall	AIRI-41	N	Detail of the bolt lock on the N wall
AIRI-17	E	External detail of the gun loop on the N facing wall with scale	AIRI-42	S	Internal detail of the wall at the entrance
AIRI-18	NE	External elevation of the W facing wall	AIRI-43	NW	General view of the pill box
AIRI-19	E	Detail of the turf roof	AIRI-44	E	General view of the pill box
AIRI-20	E	External elevation of the W facing wall			
AIRI-21	E	General view of the pill box			
AIRI-22	NE	General view of the pill box			
AIRI-23	E	General view of the pill box showing its location to the railway line			
AIRI-24	N	General view of the pill box			
AIRI-25	W	General view of the pill box showing its location to the railway line			

APPENDIX 2 DISCOVERY AND EXCAVATION IN SCOTLAND (DES) ENTRY

LOCAL AUTHORITY:	Moray
PROJECT TITLE/SITE NAME:	MOSSETBURN OVERBRIDGE, INVERERNE ROAD, FORRES
PROJECT CODE:	AIRI16
PARISH:	Forres
NAME OF CONTRIBUTOR:	Donald Wilson
NAME OF ORGANISATION:	Headland Archaeology
TYPE(S) OF PROJECT:	Historic Building Recording
NMRS NO(S):	-
SITE/MONUMENT TYPE(S):	Type 22 WW11 Pillbox
SIGNIFICANT FINDS:	None
NGR (2 LETTERS, 8 OR 10 FIGURES)	JJ 0339 5922
START DATE (THIS SEASON)	24th Aug 2016
END DATE (THIS SEASON)	24th Aug 2016
PREVIOUS WORK (INCL. DES REF.)	none
MAIN (NARRATIVE) DESCRIPTION: (MAY INCLUDE INFORMATION FROM OTHER FIELDS)	An historic building survey was undertaken by Headland Archaeology at Mossetburn overbridge, Forres of a WW11 Type 22 pillbox. The survey comprised a descriptive and photographic survey of the structure prior to its demolition as part of the upgrade of the Aberdeen to Inverness rail link. The survey identified that the structure was a typical Type 22 pillbox of hexagonal plan with rifle loopholes in five of the walls and an entrance and small opening on the remaining wall. The walls of the pillbox were constructed of large stone blocks covered with a thick concrete roof topped with turf. The internal area was divided into two areas separated by a concrete dividing wall that incorporated a Y-shaped blast wall at the entrance. Limited internal fixtures and fittings were recorded.
PROPOSED FUTURE WORK:	none
CAPTION(S) FOR ILLUSTRS:	-
SPONSOR OR FUNDING BODY:	Bamm Nuttall on behalf of Network Rail
ADDRESS OF MAIN CONTRIBUTOR:	13 Jane Street, Leith, Edinburgh EH6 5HE
EMAIL ADDRESS:	donald.wilson@headlandarchaeology.com
ARCHIVE LOCATION (INTENDED/DEPOSITED)	RCAHMS



© 2016 by Headland Archaeology (UK) Ltd

SOUTH & EAST

Headland Archaeology
Building 68C, Wrest Park, Silsoe
Bedfordshire MK45 4HS

01525 861 578

southandeast@headlandarchaeology.com

MIDLANDS & WEST

Headland Archaeology
Unit 1, Clearview Court, Twyford Road
Hereford HR2 6JR

01432 364 901

midlandsandwest@headlandarchaeology.com

NORTH

Headland Archaeology
Unit 16, Hillside, Beeston Road
Leeds LS11 8ND

0113 387 6430

north@headlandarchaeology.com

SCOTLAND

Headland Archaeology
13 Jane Street
Edinburgh EH6 5HE

0131 467 7705

scotland@headlandarchaeology.com

www.headlandarchaeology.com