

HERITAGE NETWORK



KENNEDY GARDENS
Letchworth Garden City, Herts.

(HN399)

Historic Building Record



THE HERITAGE NETWORK LTD

Registered with the Institute of Field Archaeologists as an Archaeological Organisation

Archaeological Director: David Hillelson, BA MIFA

KENNEDY GARDENS Letchworth Garden City, Herts.

HN399

Historic Building Record

Prepared on behalf of the North Hertfordshire District Council

by

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Contents

Summary	Page i
Section 1 Introduction	Page 1
Section 2 Historical background	Page 1
Section 3 Building record	Page 2
Section 4 Bibliography	Page 4
Section 5 Illustrations	<i>following</i> Page 4
Appendix 1 .. Photographic log	Page 5

The cover photograph shows the northern internal elevation of Shelter 1

Acknowledgements

The fieldwork for this project was carried out by Karin Semmelmann. The text and illustrations were prepared by Karin Semmelmann and the report was edited by David Hillelson.

The Heritage Network would like to express its thanks to Mark Woodman and Robin King, Miletree Construction; Dave Wilkins and Frank Page, North Hertfordshire District Council; the staff of Hertfordshire Archives and Local Studies, Hertford; and Stewart Bryant, County Archaeology Office, HCC, for their cooperation and assistance in the execution of this project.

Summary

Site name and address:	Kennedy Gardens, Letchworth		
County:	Hertfordshire	District:	North Herts.
Village/town:	Letchworth	Parish:	Letchworth
Planning reference:	n/a	NGR:	TL 2162 3236
Client name and address:	North Herts. District Council, Gernon Rd. Letchworth, SG6 3JF		
Nature of work:	Landscaping	Present use:	Public gardens
Size of affected area:	n/a	Size of area investigated:	n/a
Site Code:	HN 399	Other reference:	n/a
Organisation:	Heritage Network	Site Director:	David Hillelson
Type of work:	Building recording	Finds location/Museum:	N Herts Museums
Start of work	8 January 2003	Finish of work	8 January 2003
Related SMR Nos:	n/a	Periods represented:	Modern
Previous summaries/reports:	n/a		

Summary of fieldwork results: Following the discovery of three air raid shelters during landscaping works in the Kennedy Gardens, Letchworth Garden City, Herts., the Heritage Network was commissioned by the North Hertfordshire District Council to compile a record of the buildings.

The shelters were of Stanton-type, formed from the pre-cast concrete segments. They were of a uniform design and size with minor variations in the location of internal fixtures. No evidence remained of internal furniture, but power cables and discarded light fittings showed that the shelters had electric lighting. A possible black-out curtain was also noted in Shelter 3.

1 Introduction

1.1 This report has been prepared at the request of the *North Hertfordshire District Council* (NHDC), following the discovery of three air raid shelters during landscaping works in Kennedy Gardens, Letchworth. The scope of the required work was defined in consultation with the *County Archaeology Office* (CAO) of Hertfordshire County Council, acting as advisers to NHDC.

1.2 Kennedy Gardens is situated on Broadway, in the centre of Letchworth Garden City (centred on NGR TL 2162 3236). The landscaping programme proposed the shelters should be kept in situ, but filled with foamed concrete.

1.3 The aim of the project has been to record the location and structure of the shelters and any internal fixtures and fittings that may have survived. This follows the principals set out in the published archaeological research agenda for the eastern counties, which acknowledge the importance of modern additions to the built environment, in particular those relating to the war years, and accords them the same archaeological attention as other historic buildings (Gilman *et al* 2000).

2 Historical Background

2.1 In 1939 the Air Raid Precautions (ARP) Act placed statutory obligation on local government to provide shelter and anti-gas precautions.

2.2 Whilst initially large bomb proof underground shelters were less favoured due to cost and the risk of high casualties from a single incident, from 1941 colonies of air raid shelters were built, often on the fringes of urban areas. These usually consisted of 10-15 shelters, either semi-sunken or built on the ground surface, and each capable of sheltering up to 50 people (Lowry 1996).

2.3 Civilian air raid shelters were generally constructed from pre-fabricated concrete, or steel frames and panels, supporting the trench sides and roof, which was then covered with the spoil from the trench. This allowed for a degree of variability in the lengths and plans. The shelters were usually entered by a flight of steps flanked by blast walls. An emergency exit was often included, consisting of a vertical ladder to a ventilated manhole. Although electric lighting was sometimes provided, sanitary arrangements were rudimentary, if present at all (*ibid*).

2.4 A number of shelters of different types were constructed in Letchworth. Basic trenches were dug in Jackman's Place and Pixmore Avenue and a brick shelter was built on the Icknield Way. Other shelters, possibly conforming to the 1941 modifications to the Air Raid Precautions Act, are known to have been situated in Kennedy Gardens, Bridge Road, Burnell Rise, West View Gate and four large shelters were built at Westbury School (Elliot & Sanderson 2001).

2.5 The exact date of construction of these shelters is not recorded, nor has any other documentary evidence been found detailing the constructional form of the shelters in the area.

3 Building Record

4 Methodology

4.1 As part of the landscaping scheme for Kennedy Gardens, the air raid shelters are to be kept in situ, but filled with foamed concrete. Because of health and safety concerns associated with the structural stability of the shelters, and regulations on working in confined spaces, a modified recording methodology was adopted. In broad terms this conformed to the requirements of a *Level 1* photographic survey and a *Level 2* descriptive survey as defined by *Recording Historic Buildings: a descriptive specification* (RCHME 1996).

4.2 For simplicity and convenience, a series of photographs were taken using a digital camera (see Appendix 1). In addition, a number of measured sketch plans were produced (Figs.3 & 4).

5 Building description

5.1 Three shelters were located, one on the western side of Kennedy Gardens (centred NGR TL 21592 32318) and two in a line on the eastern side (centred NGR TL 21645 32328 and TL 21640 32306). They were all orientated approximately north to south, in line with the axis of the gardens (Fig.2). The shelters were of uniform design and dimensions with minor variations in the location of a drainage pump and sump used to control the seepage of ground water.

5.2 The main chamber was made of pre-cast, flanged and arched concrete sections 0.30m (1') wide, that were bolted together through the flanges at three levels (Plate 1a). The chamber measured 9.20m (30') in length, 2.15m (7') in width and reached a height of 2.0m (6'6"). There were narrow drainage channels running the full length of both sides of the chamber and an emergency exit at the southern end (Plate 1b). This exit was probably a ventilated manhole which was accessible by a ladder. In Shelters 1 & 2, however, the exit had been destroyed by machining. In Shelter 3 the exit was still in situ, but had been covered with concrete slabs (Plate 2b).

5.3 The end walls of the chamber and part of the return passage leading to the stairs were made of concrete slabs measuring 0.95m (3') in width and 0.63m (2') in height.

5.4 A sump was present in all of the shelters, but variously located. In shelters 1 and 3 it lay at the northern end of the chamber, with the associated pump attached to a narrow section of cross walling to the west (Plates 3a & 3b). The pump in Shelter 2 was in the centre of the southern elevation, and as the sump was clearly not at the northern end of the chamber, it may be assumed that it was located at the southern end, close to the pump but concealed by a large pile of debris. The sumps measured 0.75m (2'6") by 0.46m (1'6") and were approximately 0.63m (2') deep.

5.5 The return passage from the stairwell to the main chamber was 2.70m (8'10") long and formed of pre-cast concrete arches 2.13m (7') in height and 1.05m (3'6") wide. The arches were grooved on the outer face to accept concrete slabs forming the walls of the inner passage, and had 0.10m (4") wide cut-outs in the lintel to accept concrete beams running parallel with the passage (Plate 4a). The final 1.53m (5') of the passage and the stairwell were of shuttered corrugated concrete (Plate 4a). The number 215 had been stencilled on the north wall in Shelters 1 and 3 and the number 211 had also been marked by hand on opposing walls close to the main chamber in Shelter 1.

5.6 The stairwell in all the shelters had been backfilled with concrete and hard-core and so it was not possible to determine whether the stair had also been made of concrete (Plate 4b). An exposed section of the stairwell of Shelter 2 at ground level, however, indicated that this was probably the case.

5.7 Although there were no obvious fittings for benches or other furniture in the chambers, the shelters at least had electric lighting. The power cables were still in situ in the north elevation of Shelters 2 and 3 above the pipe that ran from the pump (Plate 5a). Four light fittings had been left in Shelter 2, but there was no evidence to suggest that they had all come from there. There was a metal fitting on the apex of an arch at the northern end of the chamber in Shelter 3 where the light may have been (Plate 5b). A similar mark existed in the same location in Shelter 2, but there was also a mark on the western side of an arch towards the northern end of the chamber which could also have been left by the light fitting.

5.8 A wooden strip with the remains of a possible black out curtain was attached over the arch in the return passage of Shelter 3 (Plate 6A).

5.9 No graffiti was noted in any of the shelter, with the exception of an abstract swirl which had been painted on the eastern end of the north wall in Shelter 1.

6 Discussion

6.1 Illustrations in *20th Century Defences in Britain* (Lowry 1996) show that the air raid shelters recorded at Kennedy Gardens were of the Stanton type, manufactured by the Stanton Ironworks Co. Ltd, near Nottingham (Francis 2003). The pre-cast concrete arches were moulded in iron moulds produced by the company, allowing a great degree of flexibility in the length of the structure.

6.2 This type of shelter was constructed either above ground, as with the surviving shelter recorded at RAF Silloth, Cumbria (Plate 6b), or was sunk or semi-sunk and concealed with a layer of earth and turf, as with the examples from Letchworth.

7 Bibliography

- Elliot, H., & Sanderson, J. (eds). 2001. *Letchworth Remembered: memories of a Garden City 1939-1960*. Baldock: Egon
- Francis, P. 2003. *Stanton Air Raid Shelter* www.pillboxgroup/stantonairraidpage.htm

Gilman, P. Gould, S & Green, S. 2000. Post-Medieval and Modern, in Brown, N. & Glazebrook, J. (eds), *Research and Archaeology: a framework for the Eastern Counties, 2. research agenda and strategy*. East Anglian Archaeology Occasional Paper No. 8

Lowry, B. (ed). 1996. *20th Century Defences in Britain* York: CBA

8Schedule of Site Visits

Date	Personnel	Hours	Comments
118/01/03	1KS	5	1Recording

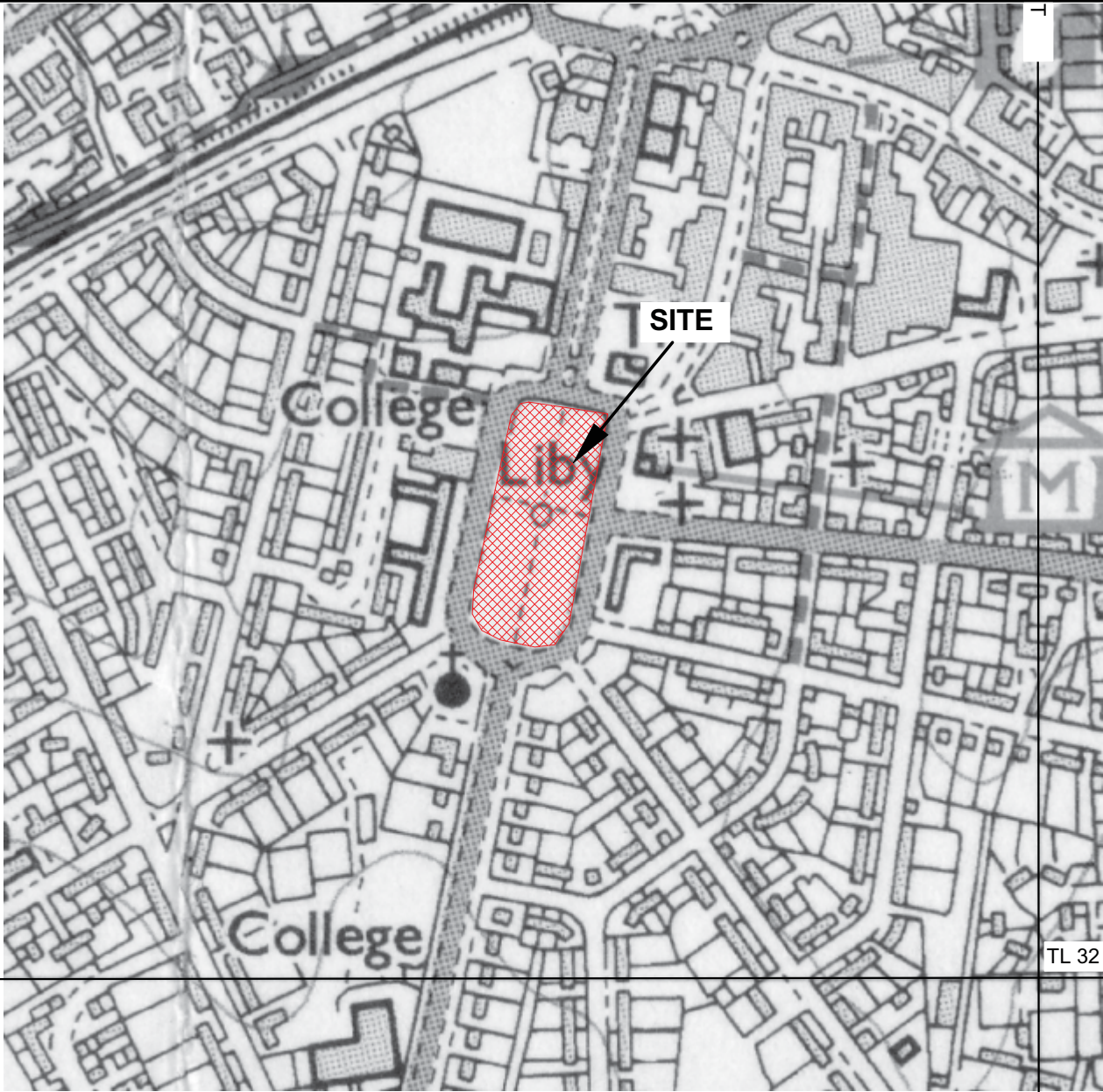
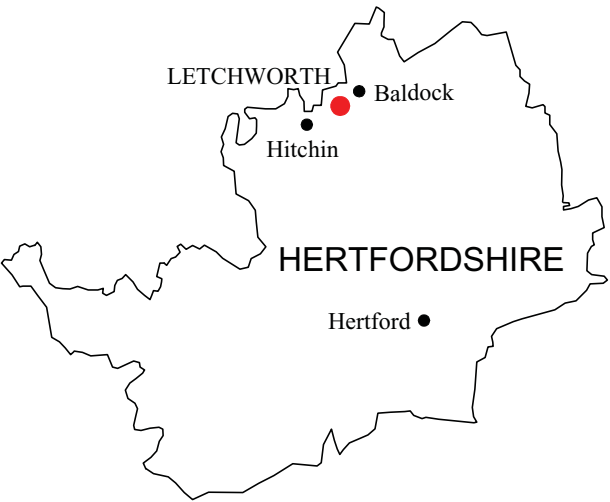
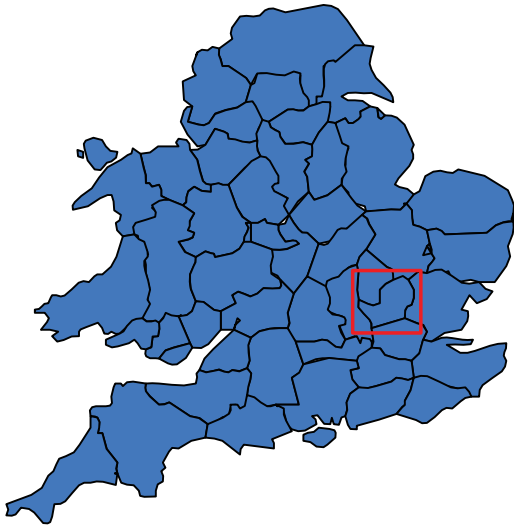
1Illustrations

Figure 1		Site location
Figure 2		Location of shelters
Figure 3		Plan of shelters
Figure 4		Architectural details
Plate 1	1(a)	Main chamber, Shelter 1
	2(b)	Emergency exit, Shelter 1
Plate 2	3(a)	Emergency exit, Shelter 1
	4(b)	Emergency exit, Shelter 3
Plate 3	5(a)	Pump & sump, Shelter 1
	6(b)	Pump wall, Shelter 1
Plate 4	7(a)	Return passage, Shelter 1
	8(b)	Stair, Shelter 1
Plate 5	9(a)	Pump & cable, Shelter 3
	10(b)	Potential light fitting, Shelter 3
Plate 6	11(a)	Wooden batten for blackout curtain
	12(b)	Stanton Shelter at RAF Silloth, Cumbria

Appendix 1

Photographic Log

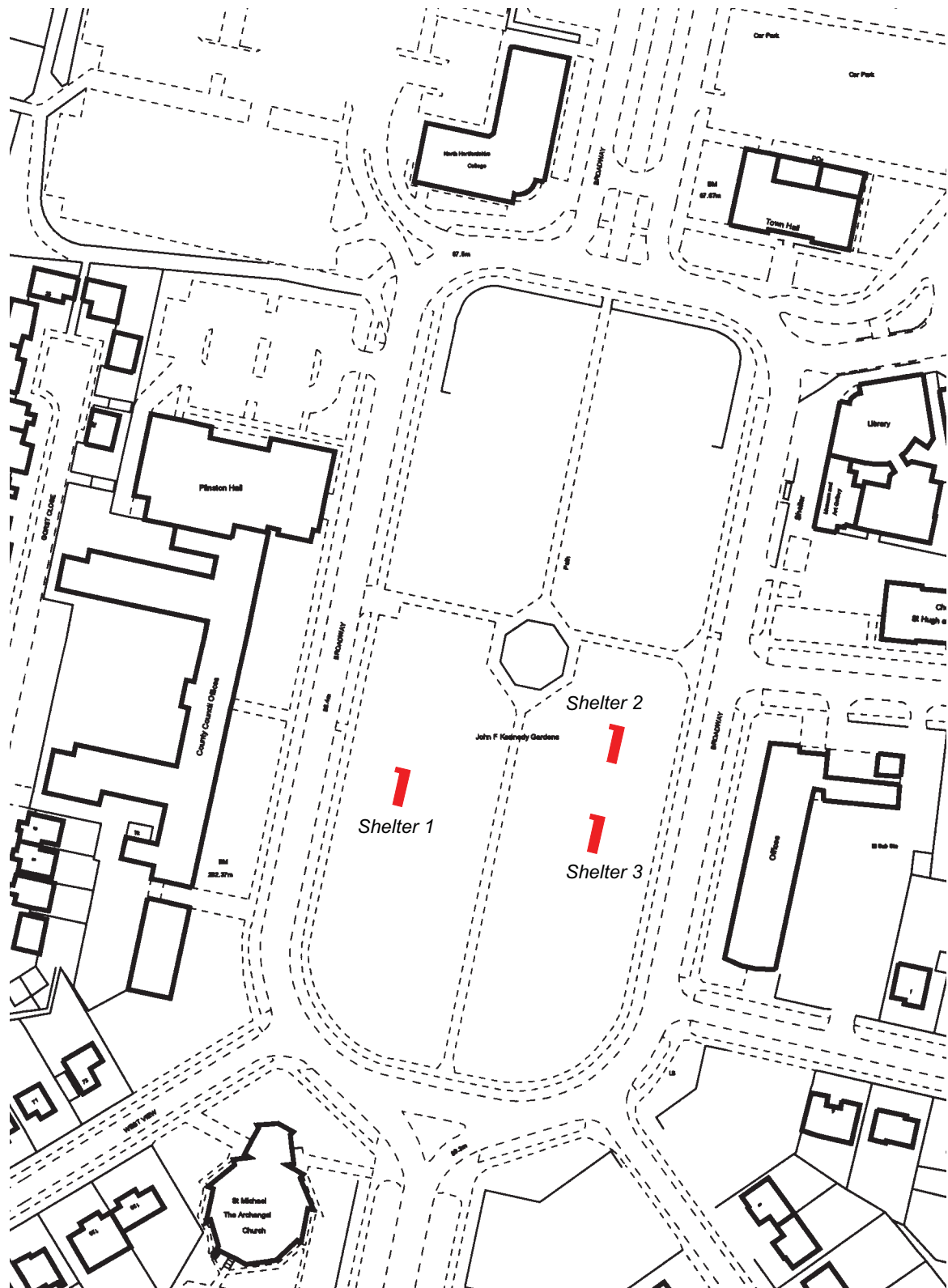
1Number	1Description	1Facing
21	2Emergency exit, Shelter 1	2SE
32	3Emergency exit, Shelter 1	3S
43	4North wall	4N
54	5Return passage, Shelter 1	5W
65	6Main chamber, Shelter 1	6S
76	7Pump wall, Shelter 1	7N
87	8Pump & sump, Shelter 1	8N
98	9Stair, Shelter 1	9W
109	10Return passage, Shelter 1	10W
1110	11Northern end, Shelter 1	11N
1211	12Main chamber, Shelter 2	12S
1312	13Possible light fitting, Shelter 3	13S
1413	14Northern end, Shelter 3	14N
1514	15Emergency exit, Shelter 3	15S
1615	16Northern end, Shelter 3	16N
1716	17Return passage, Shelter 3	17W
1817	18Pipe & cable, Shelter 3	18W



TL 32

Site Location

Scale 1:5000



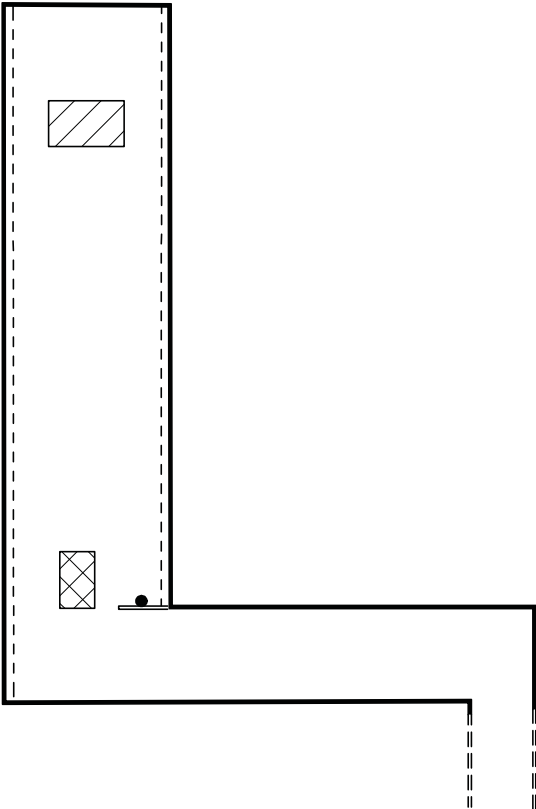
Location of shelters

Scale 1:1500

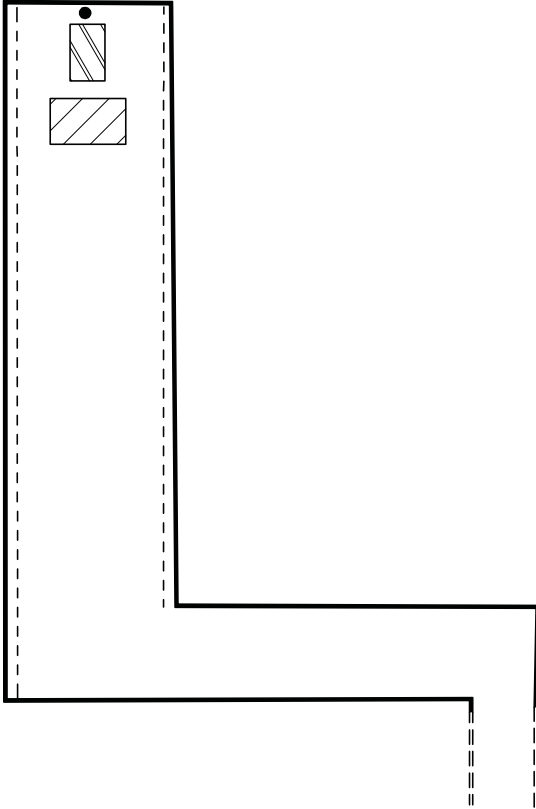
Reproduced from the Ordnance Survey with the permission of the controller of Her Majesty's Stationery Office, Licence no.AL100014661

Figure 2

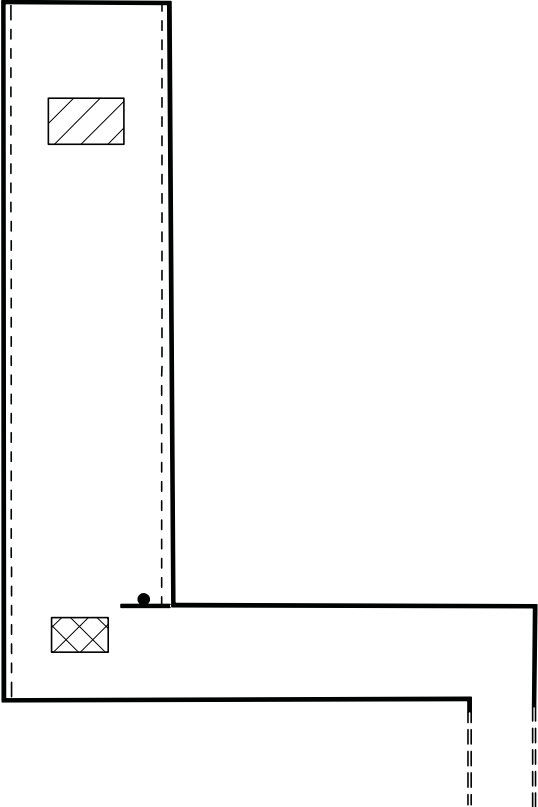
Shelter 1



Shelter 2



Shelter 3



● Pump

▣ Sump

▤ Possible sump location

▥ Emergency exit

- - - Drainage channels

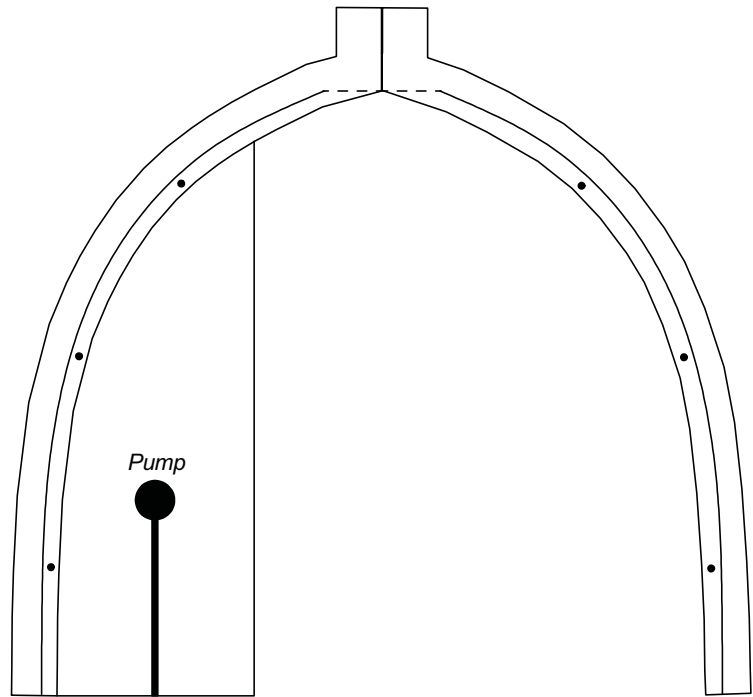
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Plan of shelters

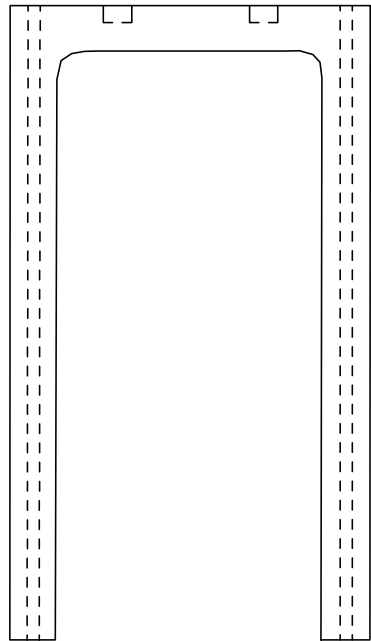
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Figure 3

North facing schematic section of Shelter 1, showing bulkhead wall, pump and position of securing bolts.

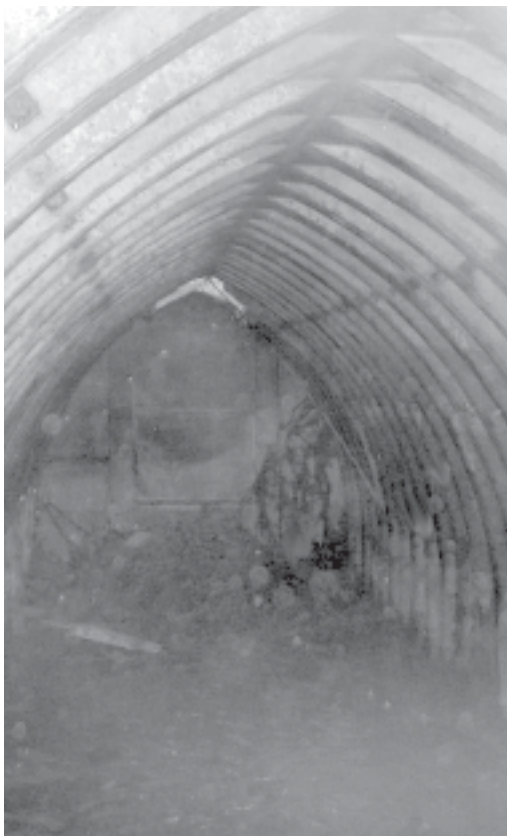


Pre-cast concrete arch in return passage showing grooves for side panels and cut-outs for lintels



• Bolt

0 50cm



Main chamber, Shelter 1

Plate 1a



Emergency exit, Shelter 1

Plate 1b



Emergency exit, Shelter 1

Plate 2a



Emergency exit, Shelter 3

Plate 2b



Pump & sump, Shelter 1

Plate 3a



Pump wall, Shelter 3

Plate 3b



Return passage, Shelter 1

Plate 4a



Stair, Shelter 1

Plate 4b



Pipe & cable, Shelter 3

Plate 5a



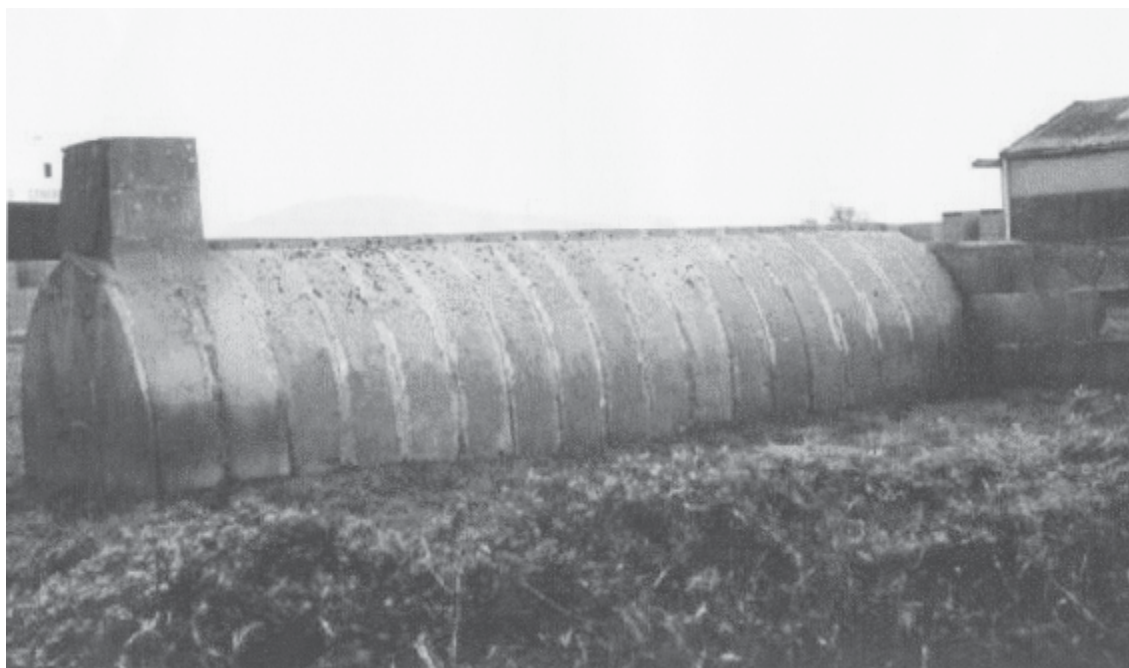
Potential light fitting, Shelter 3

Plate 5b



Wooden batten for blackout curtain

Plate 6a



A Stanton Shelter at RAF Silloth, Cumbria
(Courtesy of www.users.globalnet.co.uk/~rwbarnes/defences/silloth/htm)

Plate 6b