

**THE AIR RAID SHELTER
AT PLUCKLEY SCHOOL, KENT**

Historic Building Survey

**Victor Smith
28th February, 2002**

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INTRODUCTION

On behalf of Pluckley School and Messrs Sogol Architects, the writer was asked by the Heritage Conservation Group of Kent County Council to examine and historically record a surface air raid shelter in the playground at the rear of the school (NGR TQ 9259.4534). The site survey was undertaken on 14th January, 2002. By then, contractors had already demolished part of the southern half of the shelter.

PROJECT BACKGROUND

The recording of the shelter was undertaken because of its impending removal as part of improvements to the facilities of Pluckley School.

The objective was to preserve by the record, evidence of construction, development and function of the air raid shelter visible in its structural fabric and in any remnants of fittings and to study and analyse such evidence. The resulting record was to be framed in a way suitable for subsequent interpretation and incorporation into a consideration of other similar wartime structures and the broader defence heritage context of the region.

METHOD

The three elements of the survey were:

- A measured survey to create a set of drawings. This extended and added detail to drawings of the site which had been created by Messrs. Sogol Architects.
- A photographic survey
- Evaluation and reporting

HISTORICAL BACKGROUND

This surface air raid shelter formed part of extensive preparations made during the Second World War for the protection of the population against the threat of German air attack. This included provision for educational institutions such as schools and colleges. Schools in rural areas tended to be given low priority, unless near to significant targets attracting the possibility of stray bombs. Schools in low risk areas were advised to tape

windows against bomb blast and, in other respects, to adopt the same type of precautions specified by the Ministry of Home Security in their advice to householders.

Pluckley School holds some contemporary documentation relating to the air raid precautions adopted there but these were inaccessible in a store during contractors operations. Ms Christine Gibbons, the school Secretary, recalled from these documents that at the beginning of the war the usual practice was for children to be kept in the class rooms of this Victorian school during air raid alerts. The thick brick walls of the school were considered adequate protection against blast and splinters although the roof was not. This appears to be consistent with the practice adopted elsewhere in perceived low-risk situations. Ms Gibbons also thought that the shelter was not built until 1943. Its construction apparently took place in the face of objection from the then headmaster who did not consider a shelter to be necessary.

This understanding would need to be compared with the school records. (VTCS 5/21)

It is believed that one bomb did fall near the school, almost certainly an isolated stray. Whether before or after the building of the shelter does not appear to be known.

In post-war years some surface shelters at schools were demolished and the entrances to most underground shelters were blocked. However, surface shelters had such a promising re-use value that many, as at Pluckley, were retained. For at least part of its post-war existence, one half of the shelter was used as a school store and the other as nursery accommodation. This kind of re-use can be paralleled elsewhere in Kent and indeed across the country, one example being the similar-sized shelter at Sedley School at Southfleet. Of presumed post war date was a small brick office built adjacent to the northern end of the shelter, connected to the outside wall of the latter but with no communication between the two.

DESCRIPTION

The shelter is a rectangular yellow-brick structure (18.5 m x 3.3 m x 2.15 m high), with a flat concrete roof (covered by later asphalt sheeting) and a poured concrete floor. The walls are 34 cm thick, the bricks being laid in English Bond. Internally the shelter is divided transversely into two rooms by a centrally placed brick wall, pierced with a connecting opening.

An entrance was provided at either end of its long NW/SE oriented elevation. Either entrance opened into an individual entrance passage, with an anti-bomb blast wall at its end, around which those entering would have to turn through a right angle into the respective shelter rooms. In both cases the blast wall had been demolished in the post-war period. No trace survived of an entrance airlock, provided in many other school shelters. If fitted, this would have left evidence, if only in residual 'scarring' of the walls. An

alcove between the entrance passage and either end wall of the shelter might have been intended for use as a space for an Elsan chemical toilet.

A third entrance was inserted during post war years, roughly half way between the original two. This led into a small changing room, created by the provision of a dividing wall.

The two shelter rooms are plain. Their only features are two rectangular air vents at the top of their west wall and steel hanging brackets of the usual type, for emergency lighting (marked 'EL' on the plan). In most cases such lighting was by Hurricane Lamp. A single air vent was also provided in the end walls of the shelter. The air vents in the southern room and the southern end wall were enlarged in the post-war period into windows. There was no evidence of original electric lighting circuitry, if any had been installed, only of a post-war system. Neither was there any trace of there having been wall battens, often fitted as backrests for seating, which was usually in the form of timber school forms. The walls and ceiling of the southern room, used later as nursery accommodation, had been redecorated in white emulsion during the post-war period. The northern half of the shelter was left unpainted.

The partly demolished state of the southern room was instructive in displaying details of roof construction, showing that its concrete had been poured on to steel reinforcing rods, underlain by a thin metal grid formed of parallel half rounds joined by a 'ladder' of metal chevrons. This had been subsequently rendered underneath in cement.

DISCUSSION

Original sources at the Public Record Office, show that during the Second World War there were three approaches to providing shelter protection for schools:

- Adaptation of suitable existing school premises by strengthening basements, making corridor 'refuges' or strong lean-to structures against the outside of the building.
- Trench shelters within school grounds or close by.
- Freestanding surface shelters, such as the one at Pluckley

The Pluckley structure is very much a standard type of surface shelter, without special preservation value. Its thickness of roof and wall met Ministry of Home Security standards for protection (however valid or invalid) which had been worked out by scientific experiment in the immediately pre-war years. The size of the shelter suggests that it was intended to accommodate 50 people, divided between the two rooms.

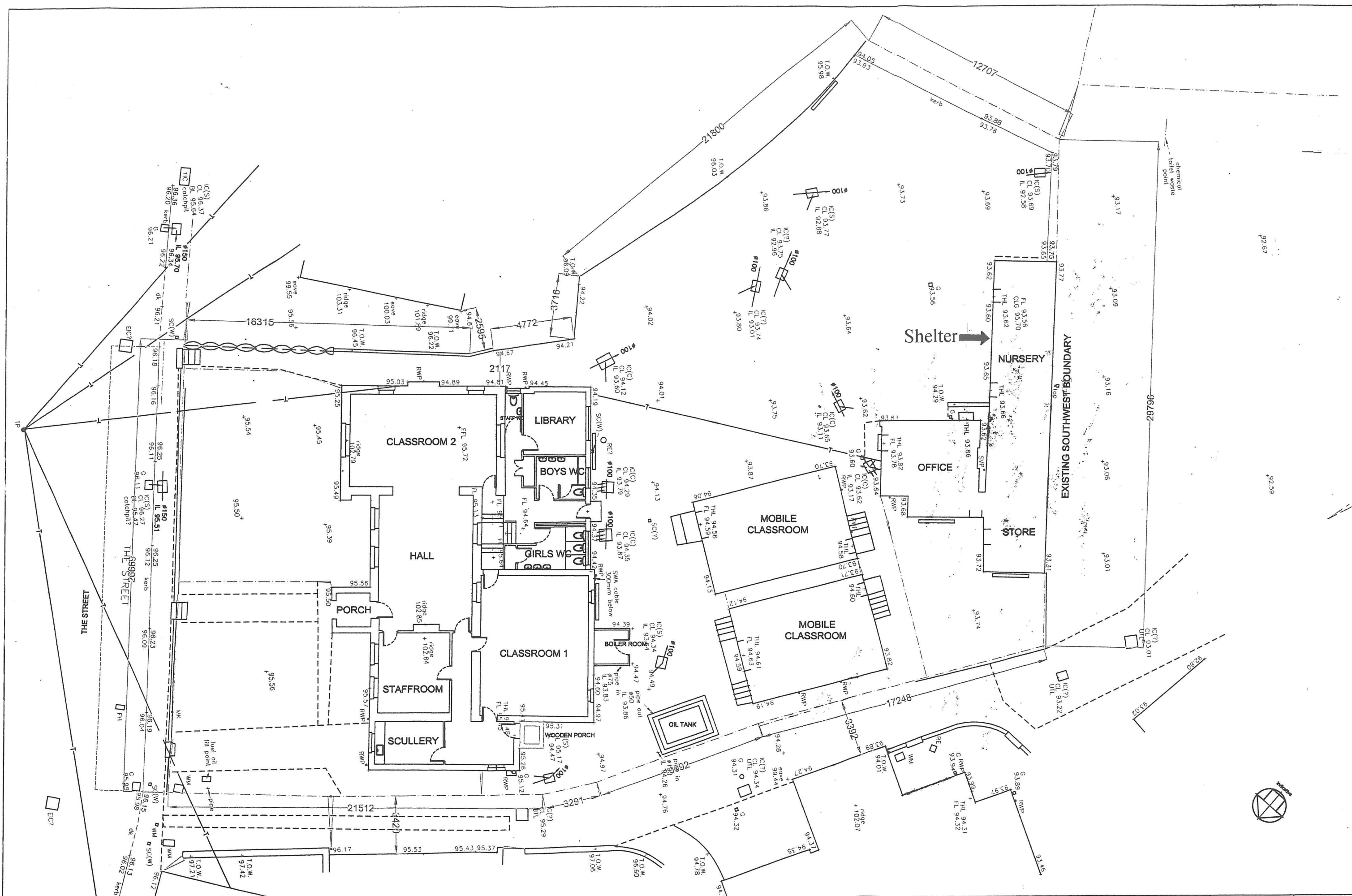
From the absence of any traces of there having been internal anti-gas shutters for the air vents or of frames for an air lock, it is questionable whether the building had been fitted against the possibility of gas attack. Such preparations had been the usual practice in school shelters built in 1940-1. It may have been decided to rely upon the use of gas masks. However, the absence of a gas attack on the United Kingdom led many people not to bother carrying gas masks anymore.

As a constructional form, surface shelters appear to have been less well thought of by the layperson than the underground type. This was partly because of the remembered faulty construction of surface shelters built in Britain at the beginning of the War and examples of their failure to adequately resist blast during raids led to a reputation for a lack of strength. The Pluckley example would have been an adequate splinter-proof shelter but could not have protected against a direct hit.

ACKNOWLEDGEMENTS

The following are thanked for their help and courtesy during the survey visit:

Ms Christine Gibbons, the school Secretary
The Head Teacher
Representatives of Messrs Sogol Architects



REVISION DETAILS A 23.01.01 - additional land to south removed, existing south boundary reinstated B 18.08.01 - Issued for tender	Sogol Architects Universal House, 55-57 Waverley Street, London E1 7SA Tel: 0207 650 0008 Fax: 0207 655 0002	Project No 136	Project PLUCKLEY	Scale 1:200 Date aug01 Drawn nm	Dwg No 002 Status Informa
Drawn on the basis of commissioned measured survey	EXISTING SITE PLAN			Approved unchecked	

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Amended and added to by V.T.C. Smith 28th February, 2002.

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Tel: 0207 650 0005 Fax: 0207 655 0902

Project	PLUCKLEY
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EXISTING BOMB SHELTER PLAN

Scale	1:50	Dwg No
Date	jan02	
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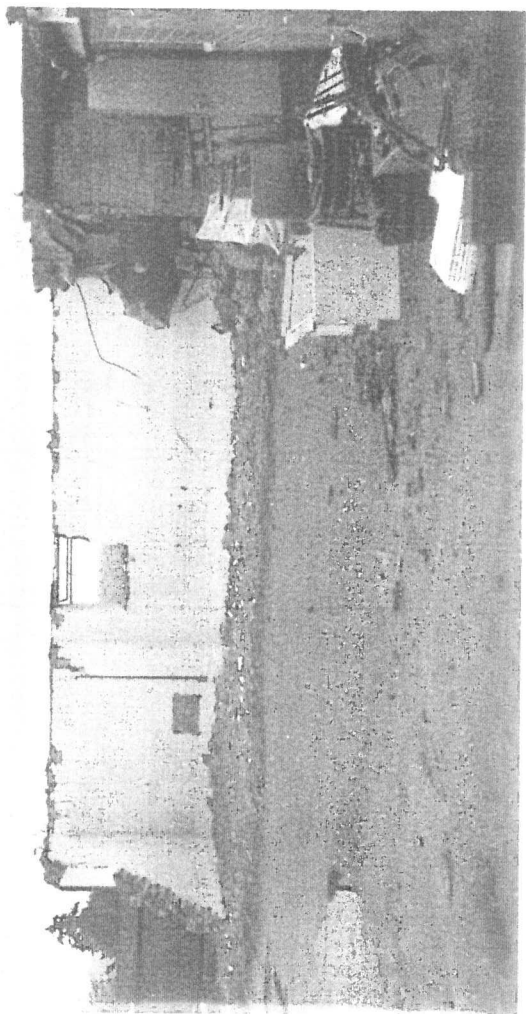
PHOTOGRAPHS

The writer took the following photographs on the morning of the 14th January, 2002. Light conditions were poor.

1. The shelter from the west.
2. The northern end and north entrance of the shelter
3. The northern end of the shelter in profile
4. Interior of the southern end of the shelter, showing its demolished state
5. Southern end of the shelter, looking north to the hanging roof structure debris and the central dividing wall
6. Ditto
7. Metal grid used in the roof
8. More of the same, with reinforcing rods attached to it by twisted wire
9. Northern room looking south towards the central dividing wall. Hanging brackets for emergency lighting are visible at the top of the walls.
10. The same room looking towards way in from the northern entrance. A hanging bracket for emergency lighting is visible on the left.
11. Partition wall between northern entrance and a possible intended toilet cubicle.
12. Metal grid revealed by spalling in the ceiling at the northern end of the shelter
13. Internal view of the airvent at the northern end of the shelter, with later external perforated plate visible
14. Air vent in the northern room, next to which is a steel hanging bracket for emergency lighting

Photographs taken by a local photographer before 14th January are held by Pluckley School. A photocopy of one sheet of photographs is included within this report. (Ends sheet (X))

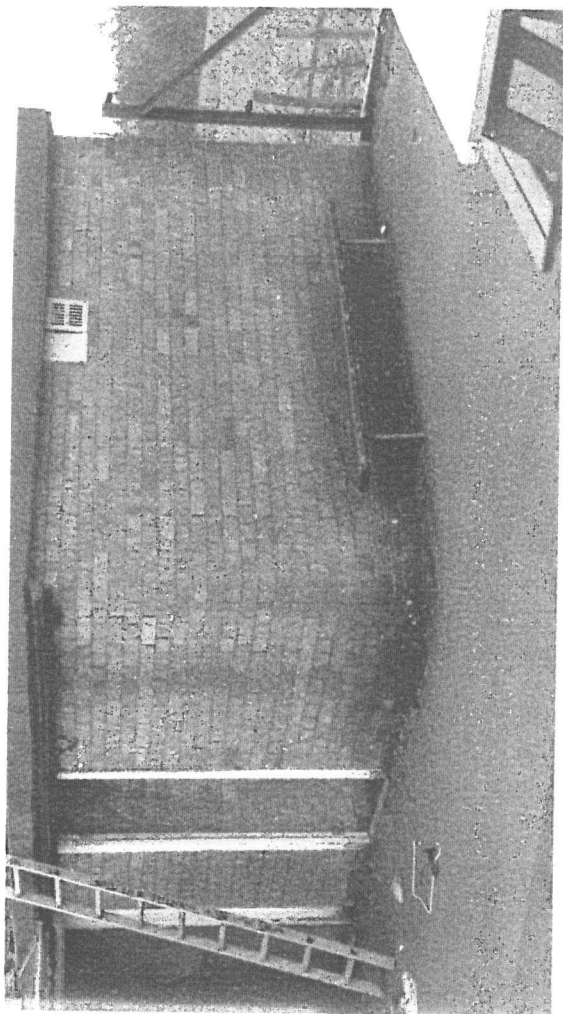
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