

**THE AIR RAID
SHELTER AT
EAST LANGDON
PRIMARY SCHOOL
EAST LANGDON
DOVER**

Historic Building Survey

**John A Guy
July 2007**



Path (um)

Path (um)

Langdon
County Primary School

Air Raid Shelter Demolished

Air Raid Shelter to remain

East Langdon

WEST SIDE

Key



Area of site edged red: 4,701.13sq m
Area of site edged blue: 1,070.43sq m

Four Bells

633300

633400



AIR RAID SHELTER AT EAST LANGDON PRIMARY SCHOOL EAST LANGDON DOVER

Historic Building Survey

INTRODUCTION

In June 2007 the writer was asked by Mr Ron Ashdown of NPS Property Consultants to historically record a Second World War air raid shelter in the rear playground of the school (NGR TR 3339.4635). The survey had to be done at short notice as the air raid shelter was due to be demolished the next week to make way for a new mobile classroom. The whole building was measured and photographed. The site was again visited the next week while the shelter was being demolished so that the wall and roof construction could be recorded.

PROJECT BACKGROUND

The historic building survey was carried out as a condition of the Planning Application concerned with the demolition of the north western air raid shelter of two shelters at the rear of the school.

METHOD

The following elements are included in this report:

- A measured survey to create a set of drawings
- A photographic survey
- A written survey
- A limited study of readily available documentary sources

HISTORICAL BACKGROUND

The shelters formed part of an extensive tranche of national preparations made during the Second World War for the protection of the population and of military, industrial and commercial assets against the threat of German bombardment. These measures ultimately derived from the first primary legislation of 1935 and then from the Air

Raid Precautions Act of 1937 and associated and later legislation, statutory instruments and regulations. These included provisions for educational institutions such as schools and colleges. Schools in rural areas were given low priority under this scheme, unless close to recognised bombing targets or near to significant military installations. Schools in low-risk areas were advised to tape windows against bomb blast and, in other respects, to adopt the precautions at a level specified in the advice of the Ministry of Home Security to households.

The school does not appear to have kept a logbook of this period and a date of the air raid shelters is not exactly known. Most of the shelters were constructed during 1940. Most of the schools in the Dover had air raid shelters constructed as it was expected at first that children from the London area were to be evacuated to areas like the south coast. When the south coast towns started to be bombed the children were evacuated to other areas. Dover would become an area to be heavily bombed and shelled and many people were also evacuated.

The VI offensive of 1944 led to further government evacuation scheme for children, instituted on 16th July.

Civil defence arrangements generally throughout the country were swiftly terminated after Victory in Europe Day on 8th May, 1945, and the school air raid shelters would have ceased to be maintained for the purpose of air raid precautions.

The School shelters were primarily intended for the use of children and their teachers. But research in other locations indicated that whether formally, or informally, school air raid shelters could also be made available for limited numbers of local residents during the school day and, in their entirety, during out of school hours.

School shelters could take many forms:

- 1 Lean-to additional structures attached to sturdy external walls.
- 2 Strengthened basements.
- 3 Cut and cover trench shelters.
- 4 Surface shelters.
- 5 Sunken shelters.
- 6 Semi-sunken shelters.

The shelters at Langdon School were surface shelters. The purpose of these shelters was to give immunity from bomb and shell splinters, anti-aircraft shell fragments and machine gun fire and gas attack. These shelters would not withstand a direct hit or near hit.

Following the end of the Second World War, many of the extemporised wartime buildings across the country were demolished. At schools, trench shelters tended to have their entrances blocked and otherwise left intact but surface shelters were too valuable for demolition and tended to be retained for re-use as at East Langdon School. Typically, they became used as school stores or even as additional classrooms. The shelters at East Langdon appear to have been used mainly as store rooms and additional classrooms. The northern shelter, later had windows cut into it so it could be used as a classroom, now demolished.

Recent research into planning for nuclear war in the mid-1950s has indicated that after demolitions of many other air raid shelters, those in schools remained the largest single category of surviving shelters in public ownership to consider for possible use.

DESCRIPTION (See plans and plates)

The building was located on the northwest side of the playground and was rectangular in shape oriented southwest, northeast. The shelter measures nearly 12 m long x 3.6 m wide and 2.2 m high with brick walls and 20-cm thick flat concrete roof. It contains a single long room, entered from either end of the shelter via a traversed indirect entrance of conventional form. The shelters 34-cm thick walls were constructed of yellow and red brick on a yellowish sandy mortar with a double damp-proof course of light grey slate. The nearly flat concrete roof is slightly sloped away from the playground for the run-off of rainwater.

At either end of the shelter, the 90-cm wide entrances from the playground give on to a blast wall, constraining those entering to walk round its end to access the shelter room itself from the other side. Both blast walls were intact.

Both entrances had been provided with airlocks against gas attack. These consisted of an externally sloped and unpainted timber frame in the entrance from the playground, originally mounted with a chemically impregnated fabric gas screen fixed and lowered from the lintel, with another similarly arranged frame on the inner side of the blast wall. The sloping inner frames were both intact, wooden gate doors had since been fitted to the two external doors.

The small cubicle inside each entrance of the shelter was probably a latrine, each to contain a single Elsan toilet bucket. A small diameter steel curtain rail, on which a movable fabric screen slid on rails, had been provided for giving privacy to the user. The two end walls each had a vent built into them for ventilation; these would have had a means of shutting them off in case of a gas attack.

The length of wall between the two entrance doors had two windows cut into it post World War II when it was used as a classroom. The rear wall had two vents in it, all the vents were just below ceiling height and could be closed off if a gas attack was detected.

The floor was poured concrete with a small aggregate mix and the roof was the same, poured onto an iron reinforcing grid. There were some traces of original electric wiring for lighting as a scar of a run line under the ceiling. Emergency lighting was provided through the use of paraffin hurricane lanterns. Modern lighting was subsequently introduced during the use of the air raid shelter as a school store and classroom.

DISCUSSION

The East Langdon air raid shelter is very much a standard type of surface shelter with a one shelter room. There were larger ones like this built with as many as three shelter rooms.

The thickness of walls and roof at the East Langdon air raid shelter met the Ministry of Home Security standards for protection, which had been worked out by scientific experiments in the immediate pre-War years. Likewise, the provision of airlocks and protected air vents reflects a perceived inevitability of communities having to face attack with air dropped gas bombs in the event of war although, in fact, this did not happen. If there had been sustained gas warfare, the light form of canvas screens for the airlocks might have been replaced with permanent air-tight doors. No doubt the school would have been provided with gas detectors. Teachers were trained in anti-gas precautions. Individuals would have been given personal gas masks to supplement the air lock arrangements.

Despite the potential from the combined body heat in closed down conditions, surface shelters were, by their nature, less insulated than underground ones and were likely to require some degree of heating in the coldest conditions. There were provisions in some shelters for electric heating should there be need for prolonged periods of occupation.

The Code of Practice for school air raid shelters required that no more than 50 persons should be accommodated within any one compartment. This shelter and the second shelter would have been able to accommodate this number persons, although not very comfortably, thus fulfilling of the requirements of the school. The Code also provided for the installation of sanitary arrangements on the scale of one seat for every 25 occupants.

As a constructional form, surface shelters appear to have been generally less well thought of by the lay person than the underground type. This was partly because faulty construction of some shelters built in Britain at the beginning of the war and examples of their failure to adequately resist blast during actual raids, led to a reputation for lack of strength. So much was this so, that the Ministry of Home Security became forced to mount a publicity campaign to convince people that surface structures were effective. Surface shelters were very widely adopted for schools.

Both of these shelters at East Langdon School could hardly be considered as resistant to bombs other than the very smallest. Anything else would have been likely to penetrate the roof, explode and kill everyone inside. At best it conferred splinter protection against a near-miss.

LIST OF PLATES

[Photographs taken by John Guy in July 2007]

- 1 South East elevation.
- 2 South West elevation.
- 3 North West elevation.
- 4 North East elevation.
- 5 South West entrance showing gas curtain frame.
- 6 Internal view.
- 7 Internal view showing gas curtain frame.
- 8 Reinforcing steel in roof.

Drawings.

AIR RAID SHELTER EAST LANGDON SCHOOL



Air Raid Shelter. South East elevation.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**



Air Raid Shelter. North East elevation.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**



Air Raid Shelter. North West elevation.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**



Air Raid Shelter. South West elevation.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**



Air Raid Shelter. South West entrance.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**



Air Raid Shelter. Internal view.

**AIR RAID SHELTER
EAST LANGDON SCHOOL**

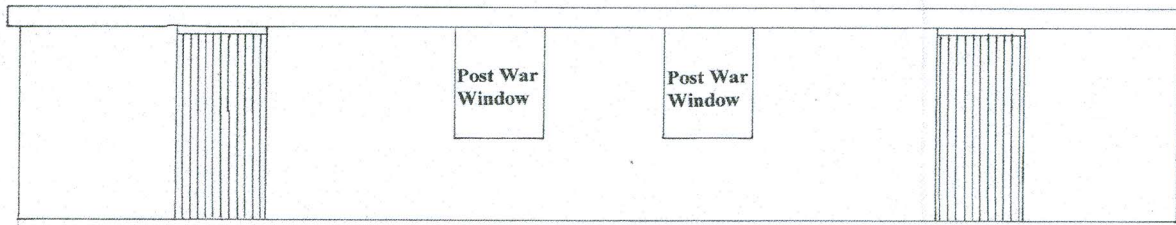


Air Raid Shelter. Internal view showing gas curtain frame.

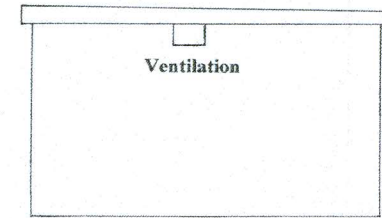
**AIR RAID SHELTER
EAST LANGDON SCHOOL**



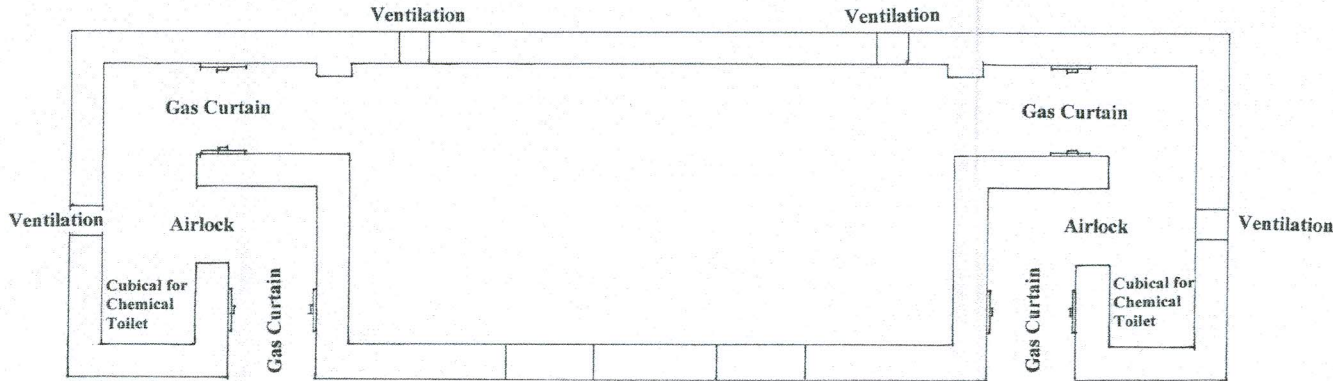
Air Raid Shelter. Showing reinforcing steel in roof.



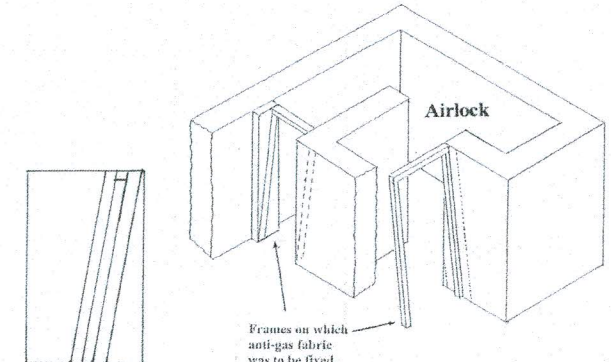
South Eastern Elevation



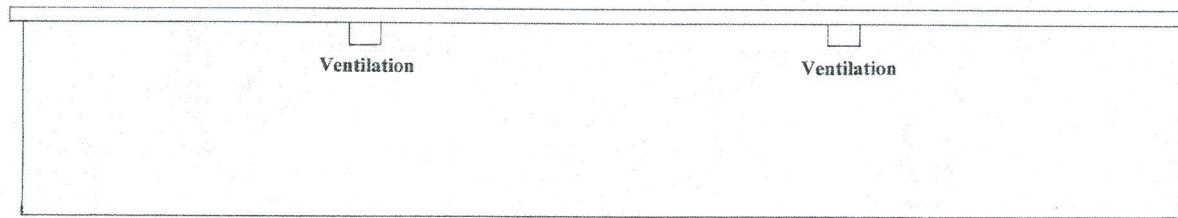
North Eastern Elevation



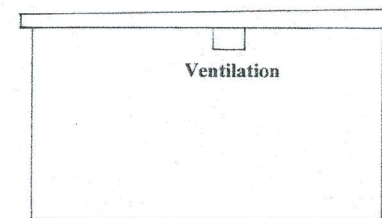
Plan



Outer south western gas curtain frame



North Western Elevation



South Western Elevation

AIR RAID SHELTER AT EAST LANGDON PRIMARY SCHOOL

