

Case Name: Storage hangar D2 and six related air-raid shelters, Graven Hill, COD Bicester at Graven Hill

Case Number: 472310

Background

We have been asked to assess the storage hangar D2 and six associated air-raid shelters at COD Bicester for listing as they fall within the Ministry of Defence disposals programme.

Asset(s) under Assessment

Facts about the asset(s) can be found in the Annex(es) to this report.

Annex	List Entry Number	Name	Heritage Category	EH Recommendation
1	N/A	Storage Hangar D2 and six related air-raid shelters	Listing	Do not add to List

Visits

Date	Visit Type
none	No Visit / Data from other sources

Context

In early 2011 we were asked by Cherwell District to give a steer as to whether areas or structures on the former Central Ordnance Depot, Bicester might merit designation, as a proportion of this very large site was to be sold for development under the Ministry of Defence disposals programme. The depot which covered some 12 square miles was split into two main sites at Arcott to the south-east and Graven Hill to the north-west and subdivided into six functional groups, Arcott A, B, C and F Sites and Graven Hill D and E Sites. An outline planning application (Ref. 11/01494/OUT) has been lodged with Cherwell District Council for the construction of a specifically designed Fulfilment Centre on C Site and the sustainable redevelopment of D and E Sites for employment and residential purposes.

English Heritage Investigators (now Assessment Team) and in particular the Military Support Officer assessed the site using the Defence Disposal Assessment Template devised for the MoD disposal sites in Wiltshire. Given the scale of the site and the time constraint, the Assessment reported on the main area for disposal at Graven Hill (Ambrosden - Bicester Central Ordnance Depot (COD) Graven Hill, Sites D and E, December 2011). Within D and E Sites storage hangar D2 and the six air-raid shelters associated with it were identified for assessment for designation.

The Military Support Officer also gave a steer on the Arcott site, identifying the group of Bolero huts at C30 and C31 for potential designation. These are assessed separately.

Assessment

CONSULTATION

We consulted the Ministry of Defence as owners, the local authority who were also the applicants and the Historic Environment Record (HER).

The local authority representative, who had visited the site and discussed potential designation at an early stage in the process, did not respond at this stage. The HER responded that it had not recorded this site on the HER and did not have any further information.

The Ministry of Defence opposed listing for the following reasons. Relevant to the assessment of architectural and historic interest, they noted that the storage hangar D2 is not exceptional and has been altered, having replacement uPVC windows, blocked or replaced doors and a new roof compromising its historic value. The air-raid shelters are not an uncommon type, have lost all fixtures and fittings and are in a poor state of survival. Additionally the MoD commented that although the air-raid shelters are not directly affected by the current proposals, the site of the hangar D2 is proposed for redevelopment. Listing of the assets and consideration of their setting would therefore have an adverse impact on the viability of the scheme. Safe management of the air raid shelters could also be problematic.

DISCUSSION

Storage Hangar D2 and the six associated air-raid shelters are assessed against the Principles of Selection for Listing Buildings (March 2010) and the English Heritage Listing Selection Guide: Military Structures (April 2011). The Selection Guide states that Britain's military buildings and structures are eloquent witnesses to the impact of world events on our national story. They also represent the importance of the armed forces in the history of the nation. Military sites do not have to be in the front line to be of foremost significance; they are both defensive and offensive and broadly speaking military buildings can be divided into the operational and the ancillary: buildings for fighting, living and working. Some structures are unique and other types, particularly in the C20, were constructed using standard designs, methods of construction and materials. Whilst ordnance depots are not discussed as a specific type, these general rules apply.

Against this background, the assessment considers the following points. To qualify for historical association, buildings should be well-preserved in a form that directly confirms that historical association. Some buildings may be strongly representative of a phase or activity or contribute to understanding defence policy or technological developments. Military structures often do not stand alone and the group value of an ensemble may have a bearing. Intactness in terms of structural integrity and the survival of fixtures and fittings including signage or graffiti is a consideration. Where a structure is a rare example of a type, the case for designation may also be heightened. Some categories of military structures, particularly from the C20, are legion and local significance rather than national designation should not be underestimated as a means of managing a site within the local planning framework.

The former Central Ordnance Depot (COD) at Bicester was commissioned in the late 1930s, with the likelihood of war looming, to augment the limited capability of the five existing depots in the country. The site was chosen for its natural camouflage, where the hills would restrict low flying bombers, for its proximity to the railway network and to towns large enough to provide a workforce, and for the relatively poor quality of the land which was less likely to be used for food production. On completion in 1943, the depot covered an area of over 12 square miles, with nearly 50 miles of railway track. It was planned as the main supply base for the British Army's operations during the Second World War and later became an important supply base for the United States forces in Europe, under Operation Bolero. It is the outstanding example in the UK of a bulk storage depot built during the Second World War, designed to be fully integrated into rail and road transport networks and is the precursor of the modern commercial distribution depots dotted around the motorway network. The Bicester Military Railway is one of the most extensive internal rail systems in the British Isles.

Viewed as a whole, the exceptional scale of the site and role of many of the WWII units within the depot are clear, and numbers of storage hangars and much of the original infrastructure remain despite the continued use of the site. The assessment of the site (2011) has placed it in a national context. Aware of the planned disposal and practicalities of managing designated assets, it however identified only two groups of structures, at D2 and C30 and C31, to be of sufficient rarity or intactness to merit assessment for listing.

The principal interest at D2 lies in the unusual group of six air-raid shelters. The storage hangar D2 is included in the assessment for its contextual association, since the shelters show the large capacity of the workforce in the building which was built to handle armaments. The storage hangar is of standard plan and construction and very altered having a high proportion of replaced fabric. It is one of eight large hangars on D Site and whilst it does augment the context for the air-raid shelters, it is not rare on this site or nationally.

Some of the storage hangars have two air-raid shelters attached integrally to one of the external walls, whereas others have additional free-standing groups of shelters built a short distance to one side, reflecting the larger workforce in that particular hangar. Apart from the integral shelters, all of the air-raid shelters at the depot were 'Double' 50 person capacity surface shelters, with sufficient width internally to permit two rows of 25 people to be seated or standing opposite each other. This group was shortlisted for consideration for listing since they form a particularly legible and intact group. Because of the tendency to flooding they were built above ground but are of otherwise of standard construction. They only differ from the standard template since unusually they have centrally-placed, wide-splayed observational loops on each longitudinal wall. Inside, aside from the blast walls there are no fittings and very little signage or graffiti that might contribute to special interest.

Although typical on this site, groups of air-raid shelters such as these are rare nationally, and complete groups surviving in context with the building they served merit considered for designation. Air-raid shelters are a class of building that are also at risk due to development of brown-field sites and the disposal of redundant MoD sites. Shelter groups do survive elsewhere at hospitals and industrial complexes, but in general they are degraded due to the partial loss of individual structures, their poor condition and lack of context. A similar group at the gates of the former Royal Naval Propellant Factory (RNPF) at Caerwent, South Wales, has been demolished. There they were built to protect large numbers of workers entering or leaving the site, whereas the Bicester shelters relate to specific buildings and activities and have the added interest that they tell us how many people were employed in each building.

Although a number of individual or reduced groups of air-raid shelters still exist elsewhere across COD Bicester, the only similarly complete group of shelters are associated with Storage Hangars C1 and B1; however, as structures these shelters survive less well. Similar provision of shelters once existed with Buildings A1, B1, C1, C2, C32 (formerly C6), D1, and D3, but the majority have now been degraded or removed.

The air-raid shelters at D2 are therefore an unusually intact group and as such an eloquent reminder of the scale of operations at the depot - at its peak in 1944, more than 20,000 people were employed there - the threat from attack that it faced and the level of protection afforded to the workforce. A detailed survey of the depot supported by the documentary record reveals the exceptional scale of the operation and role of each unit within it. However, taken in isolation, individual components such as D2 and its air-raid shelters lose their contextual and historic association and potential group value. Removing the very altered storage hangar D2 from the equation further isolates the six air-raid shelters.

The Selection Guide concludes that many modern defence structures were erected quickly in response to immediate needs and were never intended to be permanent, which creates challenges in terms of their endurance as monuments. In some measure this applies to the air-raid shelters. Although condition and reuse are not a consideration of listing they do have an impact on the context of D2. In this case, given the likely redevelopment of the depot as a whole, and the consequent loss of physical and historic context, detailed survey rather than very selective designation would provide a better record of the scale and unquestioned significance of the depot and in particular of the air-raid shelters at D2 and their relationship to the separately assessed Bolero group at C30 and C31.

In summary, without the storage hangar which lacks rarity and is too altered to merit listing, and the Ordnance Depot as a whole, which is not a candidate for designation, this otherwise rare group of six air-raid shelters becomes too isolated from its physical and historical context to merit listing.

CONCLUSION

Storage Hangar D2 and the six associated air-raid shelters, D Site, Graven Hill, COD Bicester are not recommended for listing but should be included in a full survey and inventory of the site.

REASONS FOR DESIGNATION DECISION

Storage Hangar D2 and the six associated air raid shelters, D Site, Graven Hill, COD Bicester are not recommended for designation for the following principal reasons:

- * Structural interest: standard construction albeit with unusual observation loops and without fittings or signage of note;
- * Intactness and rarity: despite rarity as a group of air-raid shelters that are relatively unaltered, the storage hangar to which they relate is a common type and very altered;

- * Site significance and group value: isolated survival within this very large site where the scale of the depot, survival of the infrastructure and sum of the parts, rather the individual components, are key to its significance;
- * Historical association: loss of historic context of this very large and highly significant Ordnance Depot, when one component is seen in isolation.

Countersigning comments:

Agreed. The D2 hangar is of standard form and too altered to merit listing. The associated air-raid shelters are not, if taken as individual structures, rare or particularly notable examples of this building type nationally. They do have some rarity as a surviving group however, but this legibility of function would be meaningless without the retention of the associated hangar, and indeed the wider D-site (proposed for redevelopment). Listing is not therefore recommended.

V. Fiorato, 19th October 2012

Annex 1

Factual Details

Name: Storage Hangar D2 and six related air-raid shelters

Location: Storage Hangar D2 and six related air-raid shelters to E of hangar, D Site, Graven Hill, COD Bicester, MOD Bicester, Graven Hill,

County	District	District Type	Parish
Oxfordshire	Cherwell	District Authority	Ambrosden

History

The former Central Ordnance Depot (COD) at Bicester consists of a complex of sites clustered around two hills - Graven Hill and Arncott Hill - to the south-east of Bicester. The site was served by the Bicester Military Railway, fed from the Oxford to Bletchley railway line.

It was commissioned in the late 1930s, with the likelihood of war looming, to augment the limited capability of the five existing depots in the country. The site was chosen for its natural camouflage, where the hills would restrict low flying bombers, for its proximity to the railway network and to towns large enough to provide a workforce, and for the relatively poor quality of the land which was less likely to be used for food production. The site was confirmed in 1941.

On completion in 1943, the depot covered an area of over 12 square miles, with nearly 50 miles of railway track. It was planned as the main supply base for the British Army's operations during the Second World War and became an important supply base for the United States forces in Europe, under Operation Bolero. At its peak in 1944, more than 20,000 people were employed there. The site has continued as a supply depot, although its functions have changed over time and some areas have fallen out of operational use. However, numerous storage hangars and much of the original infrastructure remain. It is the outstanding example in the UK of a bulk storage depot built during the Second World War, designed to be fully integrated into rail and road transport networks and is the precursor of the modern commercial distribution depots dotted around the motorway network.

Central Ordnance Depot (COD) Bicester is split into two main sites - Graven Hill Depot and Arncott Depot. These two depots are further sub-divided into six distinct functional sites, A, B, C, and F at Arncott, and D and E at Graven Hill of which D site was allocated for handling armaments. D2 hangar is one of eight large storage units at D Site. Passive air defence (PAD) provision took the form of integral office block air-raid shelters in the small items stores, attached and detached complexes of surface air-raid shelters associated with the storage hangars. Because of the tendency to flood, below-ground shelters were not an option.

The three most common designs of storage hangar are rectangular in plan, twelve bays wide and have a 'ten-bay' steel girder-framed depressed gabled roofs, with a 'cat-slide' lean-to roof over the outer, road access bays. The roofs of all of the storage hangars at Graven Hill Depot would originally have been clad with corrugated-asbestos cement sheeting, and the side panels and windows glazed with 'Georgian' wire reinforced glass. All roofs are re-clad in plastic coated corrugated metal sheeting and glazed panels with clear plastic sheeting. The doorways were originally closed with large rolling bolted steel-framed doors clad with corrugated steel sheeting. All of these doors have been replaced by roller shutter doors, and some have been blocked-up. Likewise most Crittal galvanised steel windows have been replaced by uPVC double glazing.

Some of the storage hangars have two air-raid shelters attached integrally to one of the external walls; whereas, others have additional free-standing groups of shelters built a short distance to one side, reflecting the larger workforce in that particular hangar. Apart from the integral shelters, all of the air-raid shelters at the depot were 'Double' 50 person capacity surface shelters, i.e. a shelter design built above the ground surface (due to the wet ground), with sufficient width internally to permit two rows of 25 people to be seated or standing opposite each other.

Details

STORAGE HANGAR: rectangular on plan, brick walls, steel girder-framed depressed gabled roof of plastic-coated corrugated metal sheeting and clear plastic panels. Door and window openings beneath concrete lintels; many are altered or blocked. Original large rolling riveted steel framed doors clad with corrugated steel sheeting, replaced by roller shutter doors. Windows have uPVC double glazing.

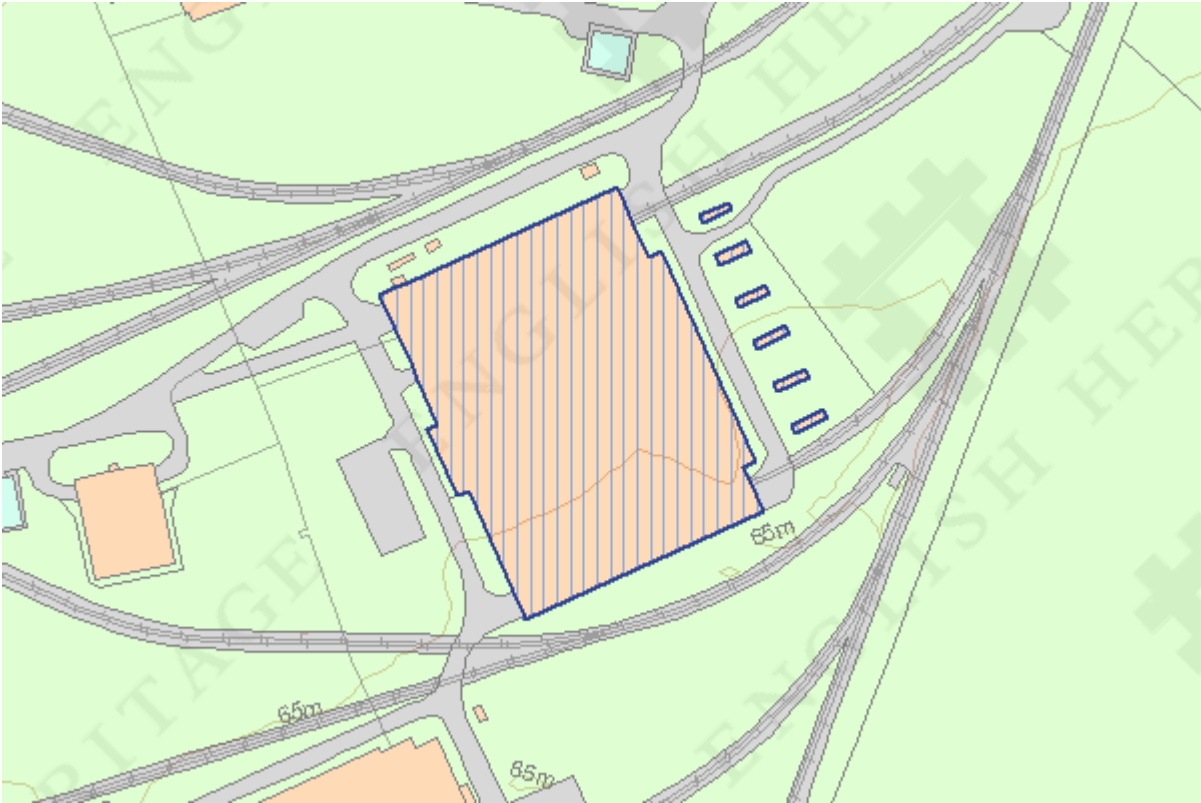
AIR-RAID SHELTERS: series of six 'Double' 50 person capacity surface air raid shelters to the NE of the hangar. Brick, with flat mono-pitched reinforced concrete roofs that have raised verges on three sides. Rectangular on plan, each with two diagonally opposed entrances (originally with timber doors or slat gates) at opposing ends of each longitudinal wall, protected by brick blast walls. Centrally-placed, wide-splayed observational loop on each longitudinal wall. No heating, the only provision to comfort being two brick recesses for a chemical closet or bucket.

Selected Sources

None.

Map

National Grid Reference: SP5936519828



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The above map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - 1410450_1.pdf