

RAF STANBRIDGE, LEIGHTON BUZZARD, BEDFORDSHIRE DESK BASED ASSESSMENT

Derwin Gregory



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**RAF Stanbridge
Leighton Buzzard
Bedfordshire**

Desk Based Assessment

Derwin Gregory

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SUMMARY

In January 2011, English Heritage's Archaeological Survey and Investigation team (Cambridge) carried out a desk based assessment of RAF Stanbridge. RAF Stanbridge was constructed in 1939 to act as the RAF's main wireless receiving station for all overseas traffic. By the 1980s, the station housed the RAF's main logistics computer which controlled all overseas operations. Currently, part of RAF Stanbridge is on the Defence Estate's disposal list.

CONTRIBUTORS

The archaeological background and historical sources were researched by the principal author, Derwin Gregory. The text was edited by Wayne Cocroft and David McOmish. Plans and other illustrations were drawn by Derwin Gregory.

ARCHIVE LOCATION

Copies of this report have been deposited in the English Heritage archive and library at the National Monuments Record Centre (NMRC), Kemble Drive, Swindon, SN2 2GZ.

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INTRODUCTION

English Heritage's Archaeological Survey and Investigation team (Cambridge) undertook research into RAF Stanbridge as part of wider work to assess sites on the Defence Estate's disposal list (Figure 2). The investigation into RAF Stanbridge was carried out as part of English Heritage's ongoing 'Luton Growth Area Landscape Project'. Research into RAF Stanbridge contributed to the broader programme of research being undertaken by English Heritage and addresses theme 4E2 of the draft National Heritage Protection Plan (NHPP) (English Heritage 2010).

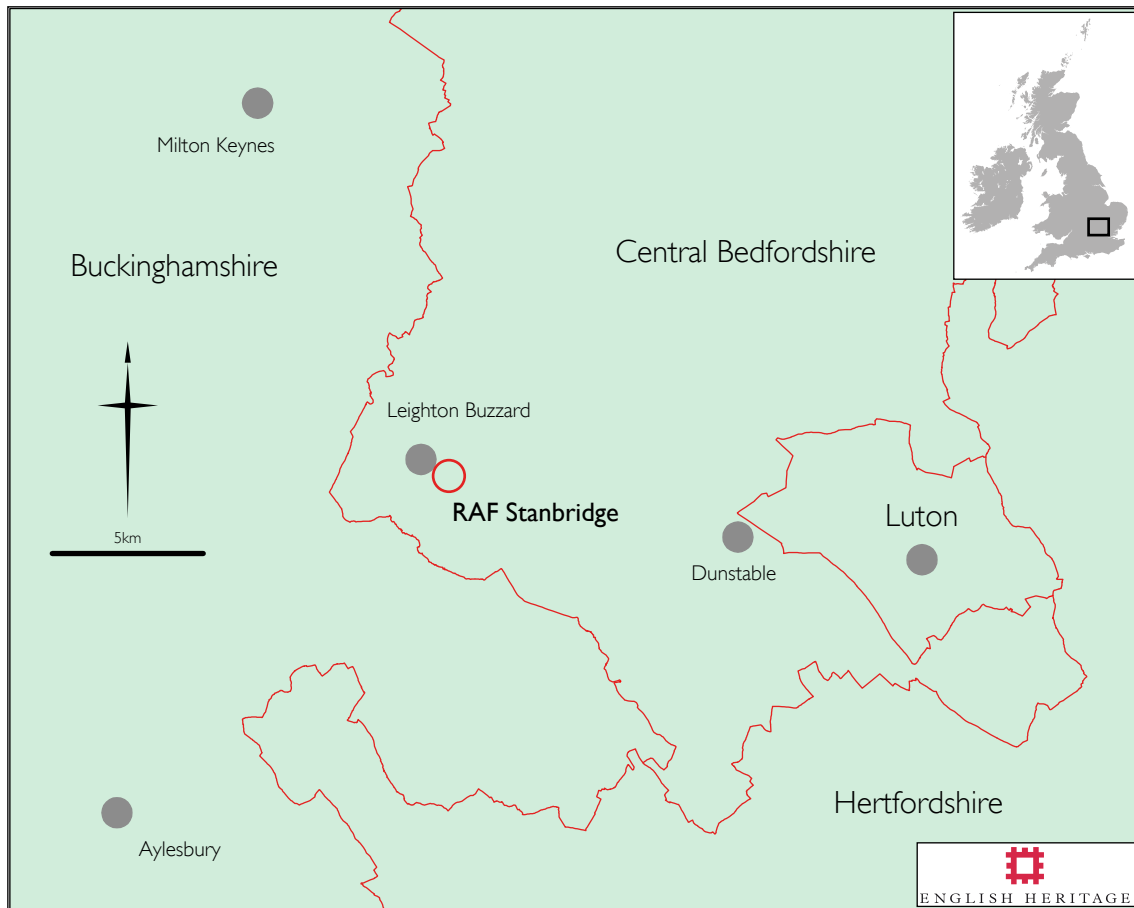


Figure 1: Location map (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

RAF Stanbridge is located on the south-eastern extent of Leighton Buzzard in Central Bedfordshire (Figure 1). The station was built on an area of medieval open fields in which survived ridge-and-furrow cultivation. Constructed in 1939, RAF Leighton Buzzard became the RAF's main wireless receiving station for all international traffic. After the Second World War, RAF Leighton Buzzard was renamed RAF Stanbridge. By the 1980s, the RAF's main logistics computer responsible for all overseas operations was located at this station.

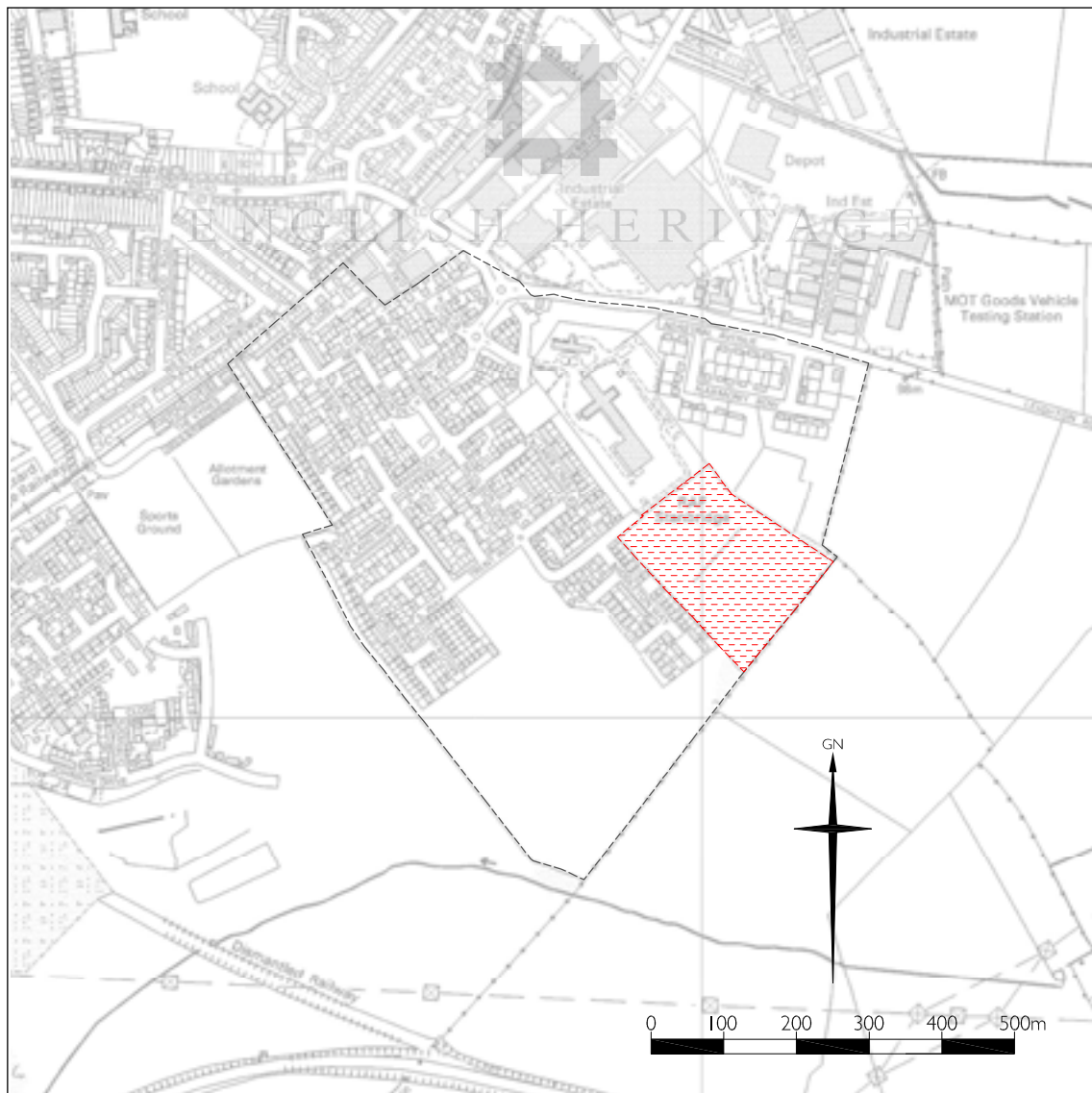


Figure 2: Map of RAF Stanbridge today; the 1991 extent of the site is marked by a grey line and the area on the Defence Estate's disposal list is highlighted in red (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

As there has been no previous research on RAF Stanbridge, English Heritage's Archaeological Survey and Investigation team undertook aerial photographic transcription in January 2011. RAF Stanbridge's environs were surveyed at 1:2500 for 1946, 1964 and 1991.

DOCUMENTARY EVIDENCE FOR THE HISTORY OF THE SITE

Construction

Between 30 November and 1 December 1937, a wireless transmitter (W/T) van roamed the countryside in the vicinity of Leighton Buzzard. The purpose of this van was to carry out tests to determine the suitability of the area for erecting a remote reception station (The National Archives (TNA): Public Record Office (PRO) AIR 28/457 30/11/1937). These tests proved favourable (TNA: PRO AIR 2/2809 8A). The area also benefited from being close to an existing Post Office telephone cable (TNA: PRO AIR 2/2809 19/11/1937).

Construction of the telephone switchboard at the W/T (Figure 3) Station Leighton Buzzard was expected to be completed by the end of April 1939 (TNA: PRO AIR 2/2809 100A). Once the Central Exchange and Wireless Telegraph station opened, it was deemed necessary to appoint a civilian wireless and electrical engineer to teach the mechanics working on site (TNA: PRO AIR 2/2809 108A).

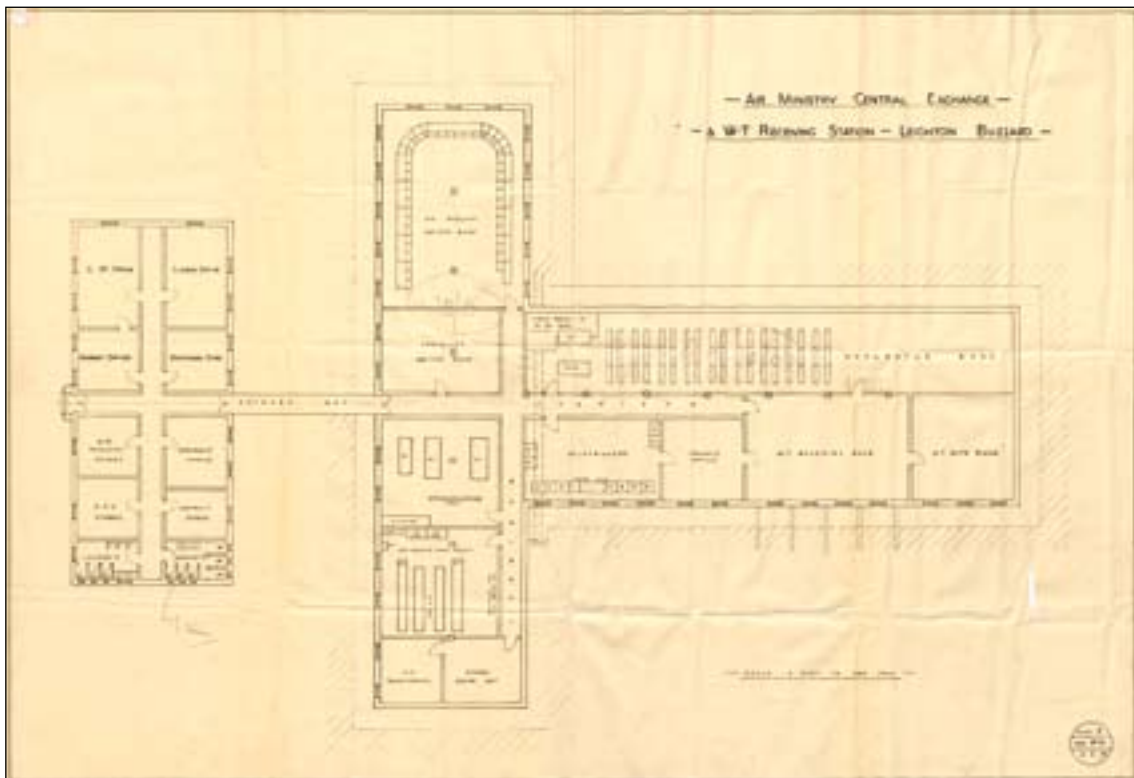


Figure 3: Proposed plan for the main technical building (TNA: PRO AIR 2/2809).

RAF Leighton Buzzard during the Second World War

During the Second World War, RAF Leighton Buzzard was vitally important to the war effort. The station contained 'the nerve centre of practically the whole of the national landline teleprinter communications and a large part of the private speech

telephone system' and was important to both the Army and Navy regarding landline communications (TNA: PRO AIR 2/7306 Minute Sheet Page 4). If RAF Leighton Buzzard had been put out of action, the whole of the landline communication network in the country would have been affected (TNA: PRO AIR 2/7306 Minute Sheet Page 4). RAF Leighton Buzzard also acted as the W/T reception station for all international RAF communications (TNA: PRO AIR 28/457).

After 15 months operating under war conditions, a report was produced briefly describing the workings of RAF Leighton Buzzard. As of 1 January 1941 it was responsible for the following satellite stations: Dagnall, Buckinghamshire; Greenford, Greater London; Cardington, Bedfordshire; and Dunstable, Bedfordshire. The station was divided into seven sections each dependent upon the other (TNA: PRO AIR 28/457). The sections were:

Section 1: Inter-Command W/T Station

This section had 17 receivers of various types and six sets of equipment for automatic transmission and reception. The schedules of this section included maintaining three 24 hour continuous watch inter-command channels with Aden, India, Iraq, Ismailia, Malta, Singapore, Melbourne and Wellington (New Zealand); a 24 hour watch with Ottawa when conditions permitted; continuous watch with Gibraltar and Malta for aircraft on overseas delivery flights; 24 hour watch with W/T stations of the headquarters of various home commands as standby in case of a breakdown with the teleprinter network; 24 hour automatic watch with Ismailia and Cairo; 24 hour Home Guard watch with Northern Ireland; a daily broadcast for Marconi at 1600 hours; four hourly schedules with Takoradi, West Africa; 'K' series broadcast every hour; and 24 hour watch on all service frequencies in use, to ensure accuracy of tuning of local and overseas transmitters. In addition, this section maintained two automatic W/T services with numbers 1 and 2 heavy mobile W/T Units in France until its collapse. Prior to the evacuation of the British Forces from Norway, the section also maintained two point-to-point W/T services with the country (TNA: PRO AIR 28/457).

Section 2: Central Telephone Exchange

Section 2 was responsible for the:

'R.A.F. central telephone switchboard, consisting of a 27 position multiple switchboard multiplied every 6 positions for incoming calls and every 4 positions for outgoing calls, requiring a minimum of 8 operators for efficient working. Direct lines are provided to Air Ministry (at all locations) the Admiralty, the War Office and various Army and Naval units, all R.A.F. Home Command and Group Headquarters, and a number of R.A.F. Stations and the A.M.E. stations are also connected to the switchboard' (TNA: PRO AIR 28/457).

Section 3 Central Defence Teleprinter Network (DTN) Exchange

RAF Leighton Buzzard contained the:

'central DTN Teleprinter switchboard and consists of a 26 position multi switchboard, teleprinter operated, multiplied every 2 positions, and operated by a minimum of 8/12 operators. Direct communications is provided with the Air Ministry, the Admiralty, the War Office, Headquarters of R.A.F. Home Commands and Operational Groups. There are also many R.A.F. Stations and Units and Admiralty and War Office units connected to the board' (TNA: PRO AIR 28/457).

The station also acted as the switch board for a number of the secret services. On 2 November 1940, the War Office requested that the Air Ministry connect MI8 (the cover name for the Radio Security Service (RSS)) at Barnet into Leighton Buzzard's telephone switchboard (TNA: PRO AIR 2/2901 114A). The following year, a direct teleprinter circuit from RSS to the DTN switchboard at Leighton Buzzard was required for the transmission of RSS and Y traffic (TNA: PRO AIR 2/2901 166B). RSS and the Y Service were both tasked with intercepting radio communications (Macksey 2003, 59, 75).

Section 4: Central Teleprinter Section

The Central Teleprinter section contained 23 teleprinters whose primary function was to handle multi-address messages within the home establishment. It also acted as a channel between the Home Establishment and the Inter-command W/T stations and for signal traffic between home and overseas commands (TNA: PRO AIR 28/457).

Nineteen machines in the teleprinter room were in continual use by 26 February 1941; one of these was for Station X (Bletchley Park) (TNA: PRO AIR 2/2901 142B). By 15 December 1941, a further circuit to Bletchley Park had been installed at RAF Leighton Buzzard. These circuits were numbered PW80377 (L870) and PW80376 (L871) (TNA: PRO AIR 2/2901 220B). The teleprinter switchboard installed at Leighton Buzzard was the first of its type (TNA: PRO AIR 2/2901 60A).

Section 5: Transit Control

Transit Control was sub-divided into three sub-sections: the Code and Cypher Section, an extension of the Air Ministry Code and Cypher Section, operated a 24 hour continuous watch; the Security Section which loaded the W/T channels with dummy messages to maintain peak traffic and to create false peaks in traffic to deceive enemy intelligence; and the Transit Control Section whom maintained a watching brief to regulate all messages passed on the teleprinters (TNA: PRO AIR 28/457).

Section 6: GPO Apparatus Room

The GPO Apparatus Room contained the:

'terminations of all incoming cables, line amplifiers, central test desk, and emergency termini. 6 groups of 10 systems (each 18 channels) of voice frequency channelling equipment. An alternative 'one-to-

one' equipment for Fighter Command use. This department with its associated battery and generator rooms, is entirely maintained and run by a Post Office staff working under a Post Office inspector, and is responsible for the maintenance of all teleprinters and the telephone and teleprinter exchange' (TNA: PRO AIR 28/457).

Section 7: Mechanics Section

The Mechanics Section was responsible for maintenance of all wireless and aerial equipment at RAF Leighton Buzzard (TNA: PRO AIR 28/457).

Technical Site

In addition to its role as a W/T station, RAF Stanbridge also housed a number of other functions.

Air Defence of Great Britain (ADGB)

The Air Defence of Great Britain's (ADGB) Emergency Operations Room (EOR) was located at RAF Leighton Buzzard. This was required by Fighter Command as a backup facility in the event that their main Operations Room becoming unserviceable due to enemy action. Whilst the EOR was not required by the ADGB, officers from Leighton Buzzard trained Womens Auxiliary Air Force (WAAF) personnel to be plotters (TNA: PRO AIR 2/2812 10A).

On 22 June 1943, Fighter Command agreed that No. 26 Group could take possession of the EOR Filter Room. The Filter Room was required by No. 26 Group as it enabled them to relocate teleprinters installed in Leighton Buzzard's Corn Exchange onto the station. Fighter Command also released a rest hut and six offices within the new training block (TNA: PRO AIR 2/4813 55A).

Conversion of the Filter Room to house teleprinters was estimated to cost £160 (TNA: PRO AIR 2/4813 1C). The majority of this sum was required to conform to medical recommendations and the policy of lighting teleprinter rooms. Florescent discharge lighting which was installed in the Corn Exchange was to be removed and erected in the EOR. As the Filter Room had never been used operationally and was only intended as a back-up, insufficient panel heaters had been installed during construction (TNA: PRO AIR 2/4813 1A) and no provision for heating the galley was made. During converting the EOR, it was, therefore, proposed to install an additional No. 6 heater (TNA: PRO AIR 2/4813 1C). To accommodate the entire Teleprinter Section, it was necessary for No. 26 Group to take possession of the space in the galley (TNA: PRO AIR 2/4813 1A).

Although No. 26 Group had apparently taken possession of the EOR the previous year, discussions between the ADGB and No. 26 Group were still ongoing in June 1944 (TNA: PRO AIR 2/4813 158A). These discussions centred on No. 26 Group's need of the EOR as a facility relating to the broadcast telephone service of Bomber Command and the Allied Expeditionary Air Force (AEAF) (TNA: PRO AIR 2/4813 165D).

RAF Leighton Buzzard also housed the RAFs most accurate frequency measuring apparatus. This functioned on home and overseas services and as a check for the GPO wavemeter at Baldock, Hertfordshire (TNA: PRO AIR 2/4813 1B).

Authority was requested on 25 April 1944 for the installation of four electric tubular heaters into the Frequency Measuring Room. The coke stove then in operation was detrimental to the sensitive instruments due to the dust and fumes it emitted. It was also essential for the efficient operation of the frequency measuring apparatus that the instruments were maintained at a constant 19°C (TNA: PRO AIR 2/4813 1C). By the 3 August 1944, instructions had been issued to heat the room with electric heaters as requested (TNA: PRO AIR 2/4813 4A). Approval to install fluorescent lighting in the Frequency Measuring Room was granted on 24 February 1944 (TNA: PRO AIR 2/4813 126A).

In a letter dated the 15 April 1944, the Works Liaison Officer had been instructed by the Air Ministry to provide a Sovex Conveyor Belt to RAF Station Leighton Buzzard (TNA: PRO AIR 2/4813 144A). By 1959, 10,000 messages a day were printed onto Chadless tape and transported to a central distribution point by means of a conveyor belt (Flight 1959, 622).

No. 26 Group were planning to re-design certain technical buildings during 1945. The intention of this was to increase RAF Leighton Buzzard's range and capacity for Far East W/T traffic. It was estimated that this would cost in the region of £15,000. Included within this sum were improvements to the ventilation of the GPO's apparatus room (TNA: PRO AIR 2/4813 193A). The final plans for the construction of additional W/T technical accommodation were submitted during September 1945 (TNA: PRO AIR 2/4813 273A).

RAF Pigeon Service

After some initial scepticism from RAF Pigeon Service (TNA: PRO AIR 2/4813 16A), the Officer Commanding Leighton Buzzard was given the go ahead to carry out experiments on the base. These experiments were designed to obtain data on the effects of keeping pigeons underground under battle conditions. On 11 May 1943, authority was granted to order a shelter for the experiments if no spare Stanton shelters were available on site (TNA: PRO AIR 2/4813 31A). It was decided that:

'[t]he shelter should not be sunk below ground level, nor does it need earth covering. This will enable a cheaper construction to be adopted for the brick walls at the entrance. Questions of ventilation, however, necessitated the provision of these walls, but 4½" [0.11m] brick will be sufficient and the roofing may be carried out in corrugated iron or scrap material available' (TNA: PRO AIR 2/4813 31A).

General Post Office

On 29 March 1943, approval was sought for the erection of a Laing Type hut (approximately 60ft (18.29m) by 15ft 6inches (4.72m)) on the operational site. This was to be used as a restroom, workshop and stores for the Post Office Staff (TNA: PRO

AIR 2/4813 11A). At the time there was no accommodation specifically allocated for General Post Office (GPO) personnel and by May 1943 plans were in place to increase GPO staff to 56 (TNA: PRO AIR 2/4813 18A). Eventually some of Fighter Command's accommodation on the Operational Site was allocated for the use of the GPO personnel (TNA: PRO AIR 2/4813 82A).

Aerial Farm

During 1943, RAF Leighton Buzzard's aerial farm was undergoing substantial alterations. These changes included the provision and erection of twenty-seven 90ft (27.43m) towers (costing £5,400); the dismantling and re-erection of eleven 90ft (27.43m) towers (£1,375); construction of foundations for thirty-eight 90ft (27.43m) towers (£2,470); cabling and earth strips (£1,000); and the undergrounding of 820 yards (749.81m) O/H HT cable and the moving of a transformer (£1,600) (TNA: PRO AIR 2/4813 73).

On 12 January 1944, the Works Liaison Officer wrote to the Under Secretary of State at the Air Ministry asking them to bring pressure onto Messrs. Gerrards to provide additional labour for the erection of the thirty-eight 90ft (27.43m) lattice towers (TNA: PRO AIR 2/4813 115B). 'At the time of writing the A.C.S. personnel have completed all the tower bases, 3 No. of the lattice towers had been erected by Messrs. Gerrards and 14 No. were up to the first bay' (TNA: PRO AIR 2/4813 115B).

Accommodation

By 1941, personnel stationed at RAF Leighton Buzzard were accommodated in various requisitioned properties throughout the town. WAAF personnel were accommodated in the Woodlands (152 personnel), the Grange (91), the Albion (58), and Wilmead (46) (TNA: PRO AIR 2/4812 31st March 1941). At the same time, 285 airmen were accommodated in unsatisfactory conditions at Marley Tile Works, 57 were living in huts, and 334 were billeted in private properties (TNA: PRO AIR 2/4812 24A).

The requisitioned accommodation for RAF Leighton Buzzard varied considerably. The Albion Hotel was a 'typical small old fashioned town hotel with many dark corridors, awkward corners and sundry steps up and down. The rooms are mostly small, though fairly satisfactory for two or three WAAFs. The kitchen and scullery facilities are reasonably good, but the dining-room and recreation rooms are much too small' (TNA: PRO AIR 2/4812 Minute Sheet 33). In comparison, the Woodlands was:

'a large rambling house, situated in its own grounds about 1½ miles outside the town. The situation and aspect are excellent, but the building has too much corridor and too many small rooms for convenient administration ... the dining and recreation rooms are too small. This aspect is made worse by the fact that one large recreation room is at present temporarily in use as sleeping quarters, pending completion of some hutting.

Recent alterations have been made, converting certain lofts over the tables, etc., into bed-rooms, which are quite satisfactory. The kitchen and scullery facilities are good. There is considerable area of pasture

land, belonging to the house, where further accommodation could be erected ... At the time of our visit, two 60' x 18' [18.29m x 5.49m] barrack huts and one latrine and ablution block were being erected, adjacent to the house. These form part of a larger scheme for erecting 10 huts' (TNA: PRO AIR 2/4812 Minute Sheet 33).

On 26 March 1941, Technical Training Command wrote to the Under-Secretary of State at the Air Ministry stating that it was essential to construct additional accommodation for 55 WAAF Officers and 275 Airwomen at Leighton Buzzard (TNA: PRO AIR 2/4812 1A). This accommodation was to house the personnel required for the expansion of the Teleprinter service at home and to develop the High Speed Links for overseas Commands (TNA: PRO AIR 2/4812 9A).

Throughout July and August 1941, investigations were being conducted into finding a solution to the additional accommodation requirements (TNA: PRO AIR 2/4812 9A, 10A, 11A). On 8 October 1941, the Headquarters of the Technical Training Command sent an urgent postagram to Squadron Leader SC Wood. This requested the immediate dispatch of Laing Huts or equivalent accommodation for 40 WAAF arriving in October 1941 (TNA: PRO AIR 2/4812 12A). These huts were to be erected in the grounds of Woodlands as a temporary measure. The WAAF Officers' Mess at Wing Lodge was also to be misappropriated as a temporary solution (TNA: PRO AIR 2/4812 18A).

On 26 November 1941, 12 huts (60ft x 18ft (18.29m x 5.49m)) were requested from the Under Secretary of State at the Air Ministry to provide additional barrack accommodation (TNA: PRO AIR 2/4812 24A). The accommodation of the station had been under review for a considerable period and the huts were required to meet the regulations set out by the Air Ministry on the 7 November 1941 (TNA: PRO AIR 2/4812 26A). This new accommodation would enable the station to adhere to the personnel requirements of Alert No. 2 and to relieve over-crowding at Marley Tile Works (TNA: PRO AIR 2/4812 24A).

Plans for a permanent camp for RAF Leighton Buzzard's personnel were submitted on 20 May 1942. However, '[i]n view of the re-organisation of the defence of the Station and the probable objection ... from the camouflage aspect, it is recommended that the camp sites now proposed be abandoned' (TNA: PRO AIR 2/4812 62A). In an attempt to revive the plans, the Station Commander suggested that the camp should actually be located adjacent to the village of Stanbridge (TNA: PRO AIR 2/4812 62A). Until the new camp at Stanbridge was built, arrangements were made to erect four plasterboard, or similar style huts (TNA: PRO AIR 2/4812 141A) and four corrugated huts at Marley Tiles Works (TNA: PRO AIR 2/4812 151C). This would enable Officers of No. 2910 Squadron of the RAF Regiment, the Station Duty Officers, and the Duty NCOs to be accommodated near to the technical site (TNA: PRO AIR 2/4812 137C). In July 1942 it was proposed to expand Marley Tiles Works Camp by requisitioning a field to the east for the construction of an assault course (TNA: PRO AIR 2/4812 67A).

On 3 November 1942 a representative of the Air Commodore in command of No. 26 (Signals) Group wrote to the Under Secretary of State at the Air Ministry. The Under Secretary of State was informed that it had been decided not proceed with plans to build

a camp at Stanbridge (TNA: PRO AIR 2/4812 160A). All requisition proceedings for the Stanbridge site were cancelled immediately (TNA: PRO AIR 2/4812 160A). In place of a new camp, the following proposals were presented to the Under Secretary of State:

(i) The development of the Marley Tiles Camp to provide accommodation for approximately 1,000 RAF personnel. Redevelopment would include a combined RAF and WAAF Sick quarters, RAF Officers Mess, Technical and Barrack Stores, Motor Transport (MT) Section, NAAFI, Dining Room and Kitchens. On the 3 December 1942, the proposed full establishment was estimated as:

<u>RAF</u>	<u>WAAF</u>
25 Officers	57 Officers
30 Junior NCOs	34 NCOs
138 ORs	956 ORs

RAF Regiment (Defence Personnel)

8 Officers

9 Senior NCOs

229 ORs

(TNA: PRO AIR 2/4812 175A).

(ii) To develop the existing accommodation and cooking facilities at the Woodlands Hostel to provide for a total of 600 WAAF (TNA: PRO AIR 2/4812 160A).

The accommodation available at Marley Tile Works was at the time unsatisfactory:

‘The airmen’s accommodation is a large tile drying shed with double tier bunks. Ventilation and lighting are very poor, the whole shed constitutes a very vulnerable target and the general conditions of this sort of accommodation, although suitable as a temporary expedient, are quite unsuitable as permanent accommodation. There is no peace or privacy, since watchkeeping personnel and R.A.F. Regiment and domestic staff are continually coming and going in this colossal barrack room’ (TNA: PRO AIR 2/4812 137C).

‘The tile drying sheds consist of two large adjoining sheds, approximately 120’x60’ [36.58m x 18.29m] and 110’ x 60’ [33.53m x 18.29m] respectively. The former has few windows only, the latter no windows but a few lantern lights in the roof. A hot air plant installed for the purposes of drying the tiles provides a reasonably generous supply of warm ventilation, but, while this plant does maintain a tolerable standard of hygiene in the buildings, the general effect is stuffy and

depressing.

The sheds have a concrete floor, brick walls and open pitch roof and are structurally sound, although the circumstances in which 280 men might become casualties to a single large bomb cannot be viewed without apprehension' (TNA: PRO AIR 2/4812 Minute Sheet 33).

Running beneath the sleeping accommodation was a stagnant sewer which could be smelt within the sheds (TNA: PRO AIR 2/4813 87A).

Accommodated in a single hut adjacent to the NAAFI Staff Quarters were 11 Senior NCOs. Two junior officers were also accommodated in a building at the entrance to the camp which opened onto the Officers' Mess Ante-Room which was proving an inconvenience (TNA: PRO AIR 2/4812 137C).

Prior to the expansion of Marley Tiles Works, the camp contained an Officers Mess for 32, sergeant's mess for 32, dining room for 375 and an Institute for 280. At the technical site there was a further institute for 200 (TNA: PRO AIR 2/4813 73). The theatre in Leighton Buzzard's Corn Exchange was used for many of the stations activities. Fitted with a special projection room, electrical fittings and with a seating capacity of 450, it showed films twice a week (TNA: PRO AIR 2/4813 17A). Woodlands Hostel had a dining

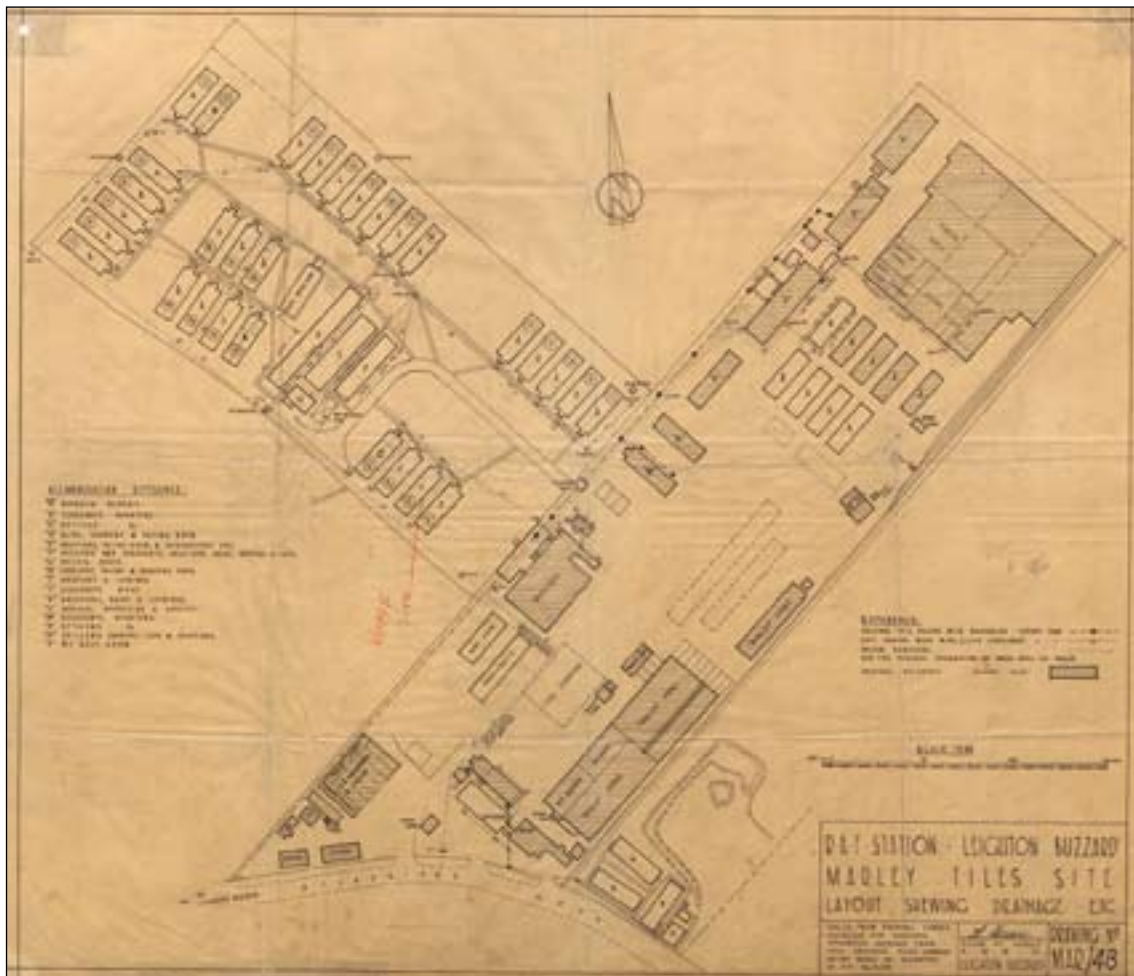


Figure 4: Plan of Marley Tiles Camp (TNA: PRO AIR 2/4814).

room for 300 whilst the Albion Hotel could only sit 38. The WAAF Officers Mess at Wing House could accommodate 35 (TNA: PRO AIR 2/4813 73).

In order to avoid congestion on camp and to provide sufficient room for a parade ground, it was deemed necessary to requisition an adjoining field to Marley Tiles Works for the new barrack accommodation (TNA: PRO AIR 2/4813 47B). Work on the site commenced in January 1944 (TNA: PRO AIR 2/4813 88A) and was ongoing in September 1944. By September, No. 26 Group were keen to occupy the new accommodation as soon as possible as this would enable the 'requisitioned properties in the town, now used as hostels, to be released to the Station X authorities by whom they are urgently required' (TNA: PRO AIR 2/4813 178A). Construction of the new accommodation at Marley Tiles Work Camp was completed in May 1945 (Figure 4) (TNA: PRO AIR 2/4813 245).

Other Facilities

The Old Isolation Hospital which was on the site of RAF Leighton Buzzard was taken over by the station. Although the early function of this building is unknown, by the 21 July 1939 it was being used by an emergency war commitment of a Command (TNA: PRO AIR 2/2809 Minute Sheet 21/07/1939).

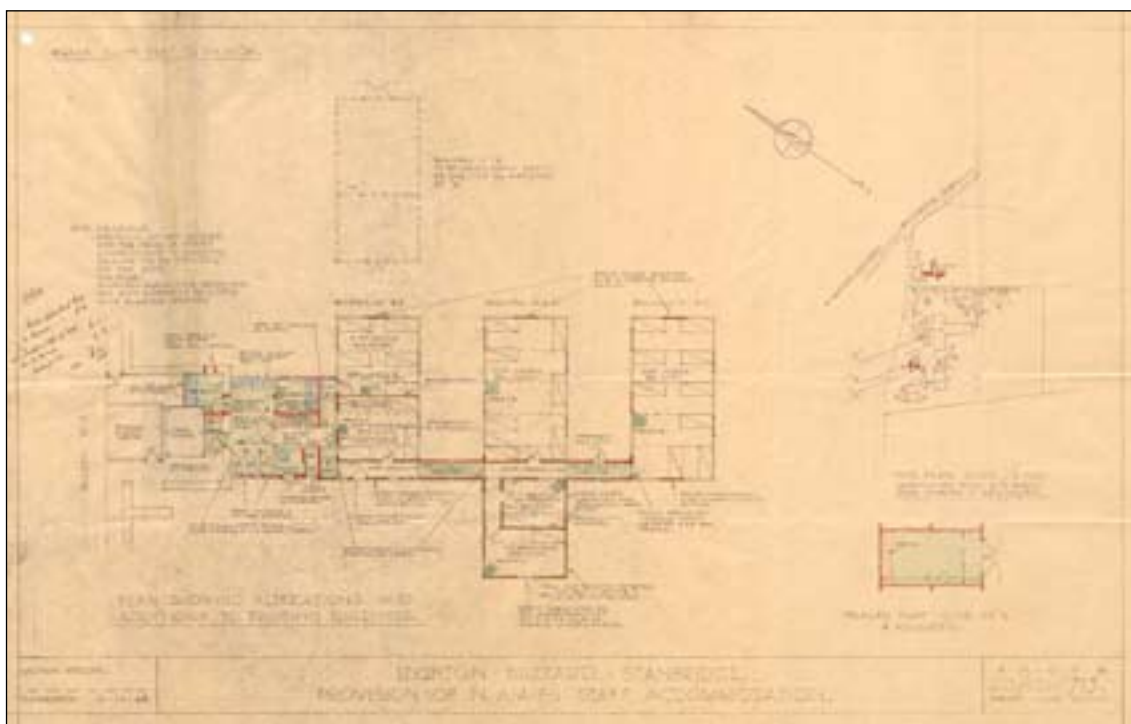


Figure 5: Alterations required to provide accommodation for NAAFI staff (TNA: PRO AIR 2/4814).

The only canteen on the technical site was a Navy, Army and Air Force Institutes (NAAFI) which had separate rooms for officers, NCOs, airmen, and airwomen (TNA: PRO AIR 2/4813 17A). In December 1945, financial approval was given for the expenditure of £555 for the alterations to buildings (Figure 5) on the technical site to

provide accommodation for NAAFI staff (TNA: PRO AIR 2/4814 24A).

Stores

Approval was given on 4 April 1945 for the construction of a YWCA canteen (Figure 6) to the north of the main technical site (TNA: PRO AIR 2/4813 214A). Initially it was planned that the YWCA would be erected on the Marley Tiles Camp (TNA: PRO AIR 2/4813 206A). However, this was eventually built within the main technical site (NMR RAF/CPE/UK/1897 3271 12-DEC-1946).

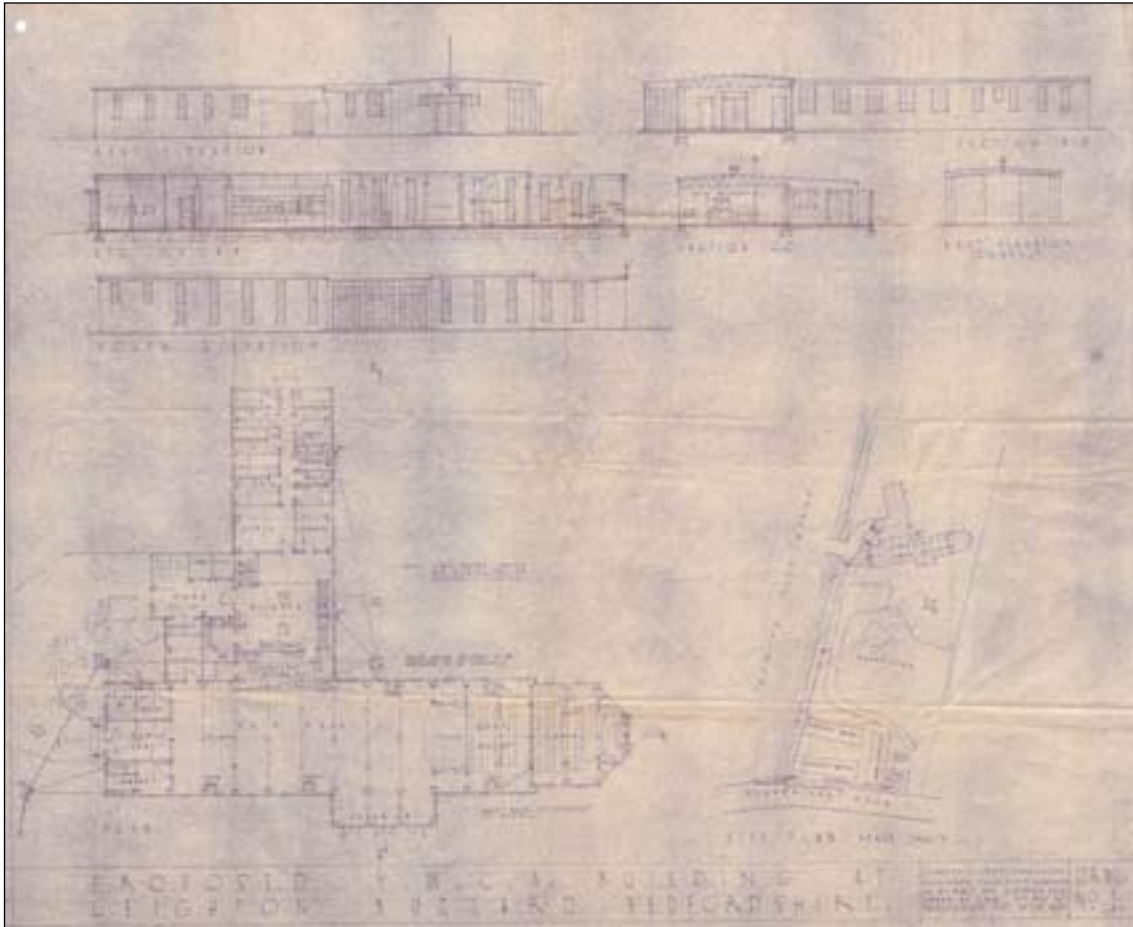


Figure 6: Proposed plan for the YWCA (TNA: PRO AIR 2/4813).

In 1944 RAF Leighton Buzzard was holding a large stock of equipment spares owing to its increased operational commitments. It also held the spares for the outstations Weyhill, Greenford, Chicksands 'B', and Dagnall. In addition, RAF Leighton Buzzard was also holding a large stock of teleprinters and slop papers which required dry and temperate storage. Every effort was made to accommodate the stores in the limited space at the station; this included the construction of a platform, approximately 15 inches (0.38m) in height (TNA: PRO AIR 2/4813 135A). RAF Leighton Buzzard submitted an application for additional storage space to include 533ft² (49.15m²) for technical stores, 455ft² (42.25m²) for bedding stores, and 400ft² (37.21m²) for clothing stores on 23 March 1944 (TNA: PRO AIR 2/4813 136A).

At the request of Headquarters No. 26 Group, a special inspection of the 'danger' buildings and explosives held at RAF Leighton Buzzard was conducted on 21 March 1944. 4,300lbs of explosives were held at this station of which 1,000lbs was categorised as Group VIII; the rest consisted of small arms ammunition (SAA) and minor pyrotechnics. At the time of the inspection, the explosives were kept in a brick and concrete SAA store situated near the Station Armoury and an abandoned Nissen style guard house adjacent to the main technical site. Explosives were also kept in various portions of the main stores. This was decidedly unsatisfactory (TNA: PRO AIR 2/4813 141B).

In light of the inspection, RAF Leighton Buzzard was informed that approximately 1440ft³ (133.80m³), which allowed for gangways, was appropriate for the quantity of explosives held (TNA: PRO AIR 2/4813 141B). Due to the dangerous characteristics of the Group VIII stores it was recommended that:

'2 Type 'D' Nissens be provided. This arrangement will permit the storage of Group VIII explosives in one, while S.A.A. and minor pyrotechnics can be housed in the other storehouse ... A site was selected ... which will permit the full inside safety distance of 20 yards for a traversed building. The traverse is the side of a railway cutting, a bank of approximately 12 feet in height and of a substantial thickness, behind which is another building housing redundant machinery' (TNA: PRO AIR 2/4813 141B).

Construction of the camp next to, and within, an existing tile factory led to a considerable amount of trouble with the domestic accommodation. In November 1944, the trouble became political. Throughout the camp hundreds of tiles were stacked in heaps. Removal of these would considerably brighten and clean the camp; however, the Station lacked the labour to carry out this task (TNA: PRO AIR 2/4813 2A). It was estimated that there were 351,000 tiles on the site weighing approximately 620 tonnes (TNA: PRO AIR 2/4813 12A). Delays 'in securing a decision on this matter is a source of considerable embarrassment and may make it necessary to retain the Italian POW now at Leighton Buzzard for longer than the six weeks originally agreed' (TNA: PRO AIR 2/4813 17A).

There was a considerable quantity of iron tiles stored in a covered yard, adjacent to the kitchens of the Airmen's Hall, and hundreds of metal tile racks, stored in a large shed adjoining the kitchen, which the RAF wanted removed (TNA: PRO AIR 2/4813 TF 2333/S.76607/III/).

On 1 January 1945, the Marley Tiles (Holdings) Co. was contacted in regards to the company arranging to remove the stores from the camp (TNA: PRO AIR 2/4813 01/01/1945). The company refused to undertake this task 'owing to the fact that our Factories will be fully engaged on Contracts in connection with the Government's Temporary Housing Schemes which will used up all available space' (TNA: PRO AIR 2/4813 10A). On 21 March 1945 a more strongly worded letter informed the company that 'it is essential in the National interest for the whole of your stocks and plant except fixed machinery to be removed ... [For] the R.A.F. will probably require the use of your premises for at least another two years' (TNA: PRO AIR 2/4813 9B).

Defence

In 1940, concern was raised over the security of RAF Leighton Buzzard from air and ground attack. At the time the only active defences consisted of trench positions across one line of approach and Lewis guns on high angle mountings. The security of the main technical building was also deemed inadequate: 'The over-head protection is light, and because the building itself is considerably higher than the revetting round it there is great risk of damage to the interior in the event of low level or dive bombing attack being delivered' (TNA: PRO AIR 2/7306 8A).

By July 1940, there was still no continuous belt of wire covered by fire from pillboxes which would have been the most 'admirable' means of defence. Instead reliance was placed on two main strong points. These comprised trenches and machine gun emplacements situated on rising ground some distance from the station (Figure 7) (TNA: PRO AIR 2/7306 19A). Further defensive precautions were taken when 'the Ministry of Home Security ... removed all aliens from within a radius of approximately five miles of the Station' (TNA: PRO AIR 2/7306 32C).

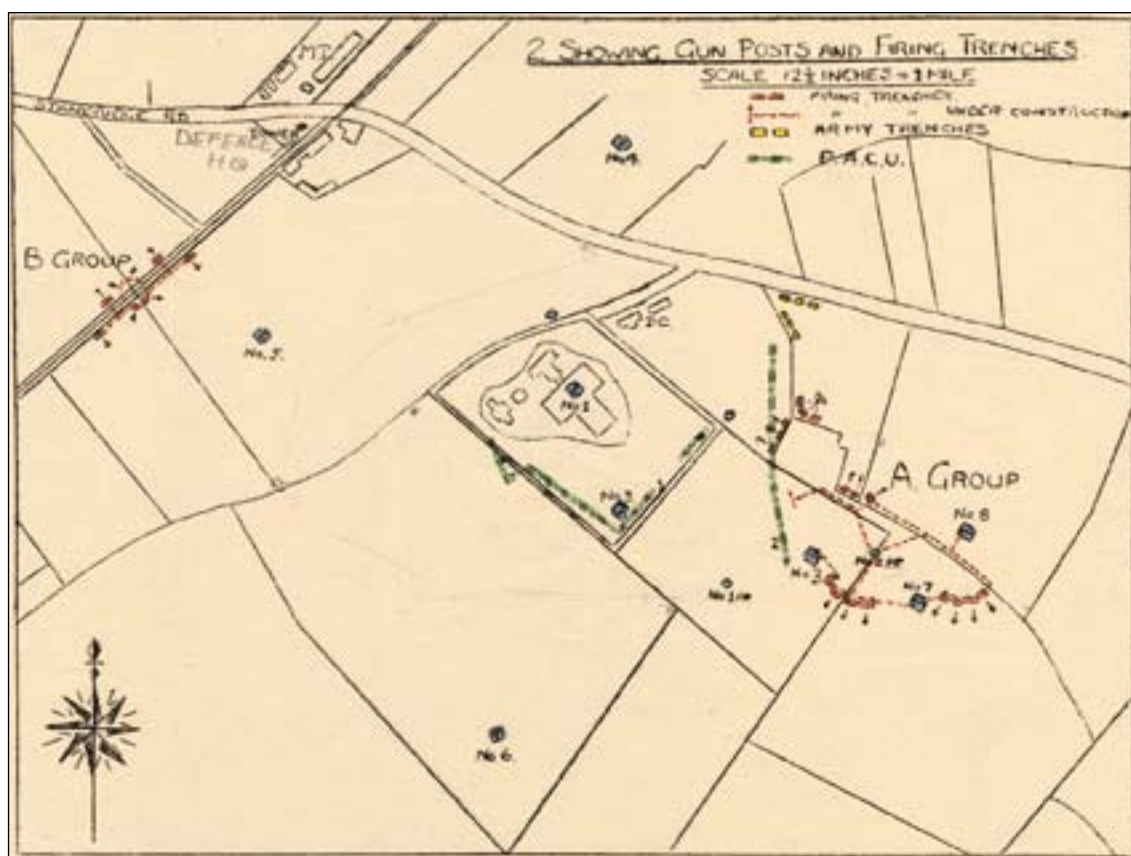


Figure 7: Gun positions defending RAF Leighton Buzzard (TNA: PRO AIR 2/7306).

RAF Leighton Buzzard was protected by a number of anti-aircraft (AA) gun emplacements by 1942 (TNA: PRO AIR 2/4812 176A). These were light positions manned by the Army armed with Bofors guns; however, it was intended that the RAF would replace the army personnel manning these sites (TNA: PRO AIR 2/4812 177A).

On 20 February 1943, authority was given to requisition land at Charity Farm for the installation of another light AA position (TNA: PRO AIR 2/4812 202A). Further improvements had also been taken to improve the defence of RAF Leighton Buzzard (Figure 8) (TNA: PRO AIR 28/458).

Camouflage was an important means of defending the site. In 1942, it was proposed to extend the camouflaged area to provide a screened area adjacent to the main building so that additional technical accommodation and administrative buildings could be erected. The proposal also included extending the existing camouflage screen to cover the whole of the field enclosed by the 'unclimbable' fence which surrounded the main building (TNA: PRO AIR 28/458).

Further recommendations also included that the 'present dip in the camouflage screen north side of the main building, where the screen comes right down to the ground should be lifted to the same average level as the remainder of the screen this is to provide space for the extension of the present inadequate accommodation which is occupied by the Cypher Section, and to provide space for the early erection of a building for a Battle Headquarters' (TNA: PRO AIR 28/458).

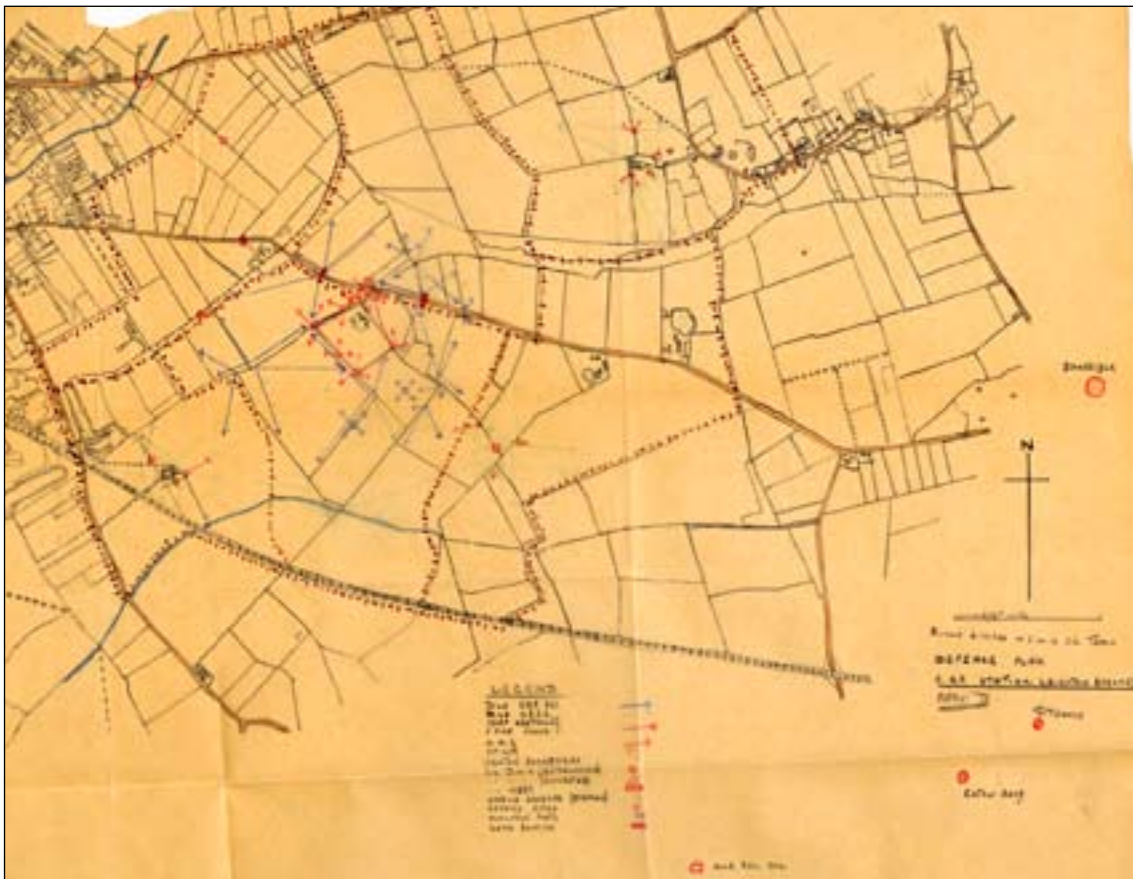


Figure 8: The improved defences of RAF Leighton Buzzard (TNA: PRO AIR 28/458).

Decoy

Prior to July 1940, attempts were made to camouflage the site using steel wool; however, it was felt that the buildings and masts were still visible from the air. Furthermore, lying within 365m of the station was a 'mammoth water tower, dark red, which is a visible land mark for miles ... although it could be blown down at once it could not be taken to pieces easily because there is a very large tank which would have to be broken up and lowered bit by bit at the top' (TNA: PRO AIR 2/4547 17A). The inability to sufficiently camouflage the site and the number of landmarks within the immediate vicinity led to the proposal for the construction of a 'dummy block sufficiently close to the masts and sufficiently close to Leighton Buzzard to deceive and take the attack' (TNA: PRO AIR 2/4547 17A).

Two sites within 500 yards (457.20m) of the station were identified as being possible locations for the decoy. Sighting the dummy so close to the actual station was felt to be a risk worth taking:

'Now it is perfectly true that anybody bombing A or B might possibly hit the main block, especially from a big height, but it is only a direct hit on this block with a large bomb which would effect it, hence I think we should take the risk. If there is low bombing I think there is very little chance of the error being so great as to hit the true block if one of the other sites is aimed at' (TNA: PRO AIR 2/4547 17A).

The decoy was eventually constructed to the west of the main technical site (Figure 9) (TNA: PRO AIR 2/4547 17A).

On 3 July 1940, a representative of the Director of Works informed the Superintending Engineer of No. 11 Works Area that the erection of 'dummy buildings including main building, offices, huts and gateways', to be known as power stations, was to be carried out by Sound City Films (TNA: PRO AIR 2/4547 20A).

To complete the deception, various accessories were planned in addition to the main buildings. These included dummy huts, roads, car parks, lodges, air raid shelters, and fencing. The dummy road was constructed by stripping and removing the top soil to a depth of 4inches (0.10m). The exposed surface was then made to represent as closely as possible darkened concrete. Boarding the road with a kerb which was kept straight and emphasised with chalk was deemed essential. As part of the dummy, the Superintending Engineer arranged for the supply of at least 30 cheap old 'crocks' suitable for putting into a dummy car park (TNA: PRO AIR 2/4547 22A). These cars were meant to be in position at the 'Power Station' by the 30 August 1940 (TNA: PRO AIR 2/4547 30A).

On completion of the main dummy buildings, it was essential for a party of men to continually look after the decoy; repairing and repainting sections as required (TNA: PRO AIR 2/4547 22A). The Superintending Engineer, therefore, 'will arrange for the provision of a gatekeeper's lodge which should be constructed in 4½" [0.11m] walls of Flettons with a cheap weather-proof roof, roughly to house 4 men. It will serve as a Guard Room and Common Room and should be divided into two portions with latrine accommodation' (TNA: PRO AIR 2/4547 22A). The decoy buildings were finished prior to the 2



Figure 9: Plan of RAF Leighton Buzzard indicating the location of the main features (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

December 1940, when a letter was sent on behalf of the Superintending Engineer stating concern with the acute dilapidation of the roof which seriously affected the whole camouflage effect (TNA: PRO AIR 2/4547 33B).

De-requisitioning of Marley Tiles Works

By the 13 July 1945, the Ministry of Works and the Board of Trade were pressing for the de-requisition of the Marley Tiles site (TNA: PRO AIR 2/4813 245A); only 3 months after it had been completed (TNA: PRO AIR 2/4813 245). The WAAF camp adjacent to Marley Tiles Work was surplus to requirements by 15 March 1946 (TNA: PRO AIR 2/4814 57A). The Air Ministry wanted RAF Leighton Buzzard to vacate Marley Tiles Works from 1 March 1946 so that the property could be released for 'important

reconstruction work' (TNA: PRO AIR 2/4814 31A). As a temporary solution:

'all R.A.F/W.A.A.F. personnel hitherto accommodated on the property of the Marley Tiles Works and in the W.A.A.F. Camp adjacent thereto are to be accommodated at R.A.F. Station, Church Green [Bletchley Park] and in the adjoining camp at Shenley. These personnel will be transported between R.A.F. Station, Church Green and the Technical Site at Stanbridge for duty' (TNA: PRO AIR 2/4814 31A).

During the reorganisation, the Office Commanding RAF Stanbridge became responsible, from the 1 March 1946, for the Central Signals Centre, RAF Signals Office London, No.372 Wireless Unit, and the W/T Station at Grentworth, Stoke Hammond, Dagnall, Weyhill, Greenford, Dunstable, and Cardington (TNA: PRO AIR 2/4814 31A).

The Cold War

By 1959, RAF Stanbridge was known as the 'Central Signals Centre' of the RAF. The station was the RAF's central signals traffic relay point and the main telephone switchboard. RAF Stanbridge was connected via landlines to RAF Chicksands, Bedfordshire, and Stoke Hammond, Buckinghamshire, wireless receiving stations, and Edlesborough, Buckinghamshire, and Greatworth, Northamptonshire, transmitting stations. 10,000 messages a day were dealt with by RAF Stanbridge: 5,500 internal and 4,500 international (Flight 1959, 555).



Figure 10: Signallers working at RAF Stanbridge (Flight 1962, 791).

The heart of the station in 1959 was the circuit control section. Here the switchboard showed all incoming and outgoing circuits and was partly automatic. Half of the operators of this switchboard were National Servicemen and with the end of National Service,

it was predicted that the system would be hit hard. However, plans were in place to counteract the loss of manpower with training the remaining personnel to a higher level and the introduction of an entirely automatic traffic handling system on both landline and radio circuits (Flight 1959, 555).

Messages arriving at RAF Stanbridge were transcribed manually to Murrery telegraph code at a speed of 40 words per minute. These messages were received and sent out on Chadless tape. To organise the Signals Traffic Hall, a conveyor belt took the messages from where they were received to a central distribution point. It was here that the message strips were sorted into different coloured bags according to precedence. 30 minutes after transmission the original Chadless tape message was disposed off. Between January and November 1958, RAF Stanbridge handled 2,614,000 messages and had a failure rate of only 0.0047% (Flight 1959, 622).

From 1980 to the present, RAF Stanbridge housed the RAF's main logistic computer. This was responsible for monitoring all RAF logistics records throughout the world (www.raf.mod.uk/organisation/stations.cfm?selectStation=9E064B01-DEFF-1526-CEF8F7F760DB54C9 22/10/2010).



Figure 11: Message hall, RAF Stanbridge (Flight 1962, 791).

AERIAL DESCRIPTION

The following section provides a detailed description of features associated with RAF Stanbridge mapped using historic aerial photographs. All dimensions are approximate. All building numbers have been allocated for this report and are not the official numbers.

1946



Figure 12: Aerial photograph showing RAF Leighton Buzzard in 1946 (NMR RAF/CPE/UK/1897 3271 12-DEC-1946 English Heritage (NMR) RAF Photography).

In 1946, the structures associated with RAF Stanbridge were confined to the area immediately surrounding the technical building (No. 1). This complex comprised fewer than 40 structures which included the NAAFI accommodation (No. 3), NAAFI (No. 3), and the YWCA (No. 5) (NMR RAF/CPE/UK/1897 3271 12-DEC-1946).

The main technical building was similar in style to the original plans (Figure 3). However, when transcribed it was apparent that the western and southern arms had been extended by 10.50m and 5.10m respectively. The detached structure which held the administrative offices for the technical building was displaced by 9.10m to the north-west. This allowed extra rooms (9.10m x 12.25m) to be constructed within this space. The whole of the technical building was then surrounded by a blast wall and earthen bank; however, shadows on the aerial photographs obscure the north and eastern sections (NMR RAF/CPE/UK/1897 3271 12-DEC-1946).

To the south-west of the main technical building, the Old Isolation Hospital (No. 4) had been retained and connected via a passageway to three rectangular (8.00m x 19.52m) structures (NMR RAF/CPE/UK/1897 3271 12-DEC-1946). South-east of the Old Isolation Hospital, a rectangular structure (12.61m x 23.55m) was surrounded by a blast wall which extended to the eaves of the building (Figure 13). In the northern elevation of this blast wall, a gap in the wall suggests that the Old Isolation Structure was connected via a passageway (NMR RAF/CPE/UK/1897 3271 12-DEC-1946).



Figure 13: RAF Leighton Buzzard during the Second World War (TNA: PRO AIR 28/458).

Between the Old Isolation Hospital and the main technical building are a number of long rectangular structures. To the east of the main technical building numerous structures of various size and shape were constructed. Spread around the site was a number of underground air raid shelters (NMR RAF/CPE/UK/1897 3271 12-DEC-1946).

To the west of the main technical building, a large rectangular mound (No. 2) was constructed (NMR RAF/CPE/UK/1897 3271 12-DEC-1946). This was 15m by 26m. Visible more clearly on the aerial photographs from 1950 (NMR RAF/58/374 5133 01-MAR-1950) and 1964 (NMR OS/64020 304 12-MAY-1964), this mound appears to have had a number of entrances. This could represent the Air Defence of Great Britain's Emergency Operation Room.

1950

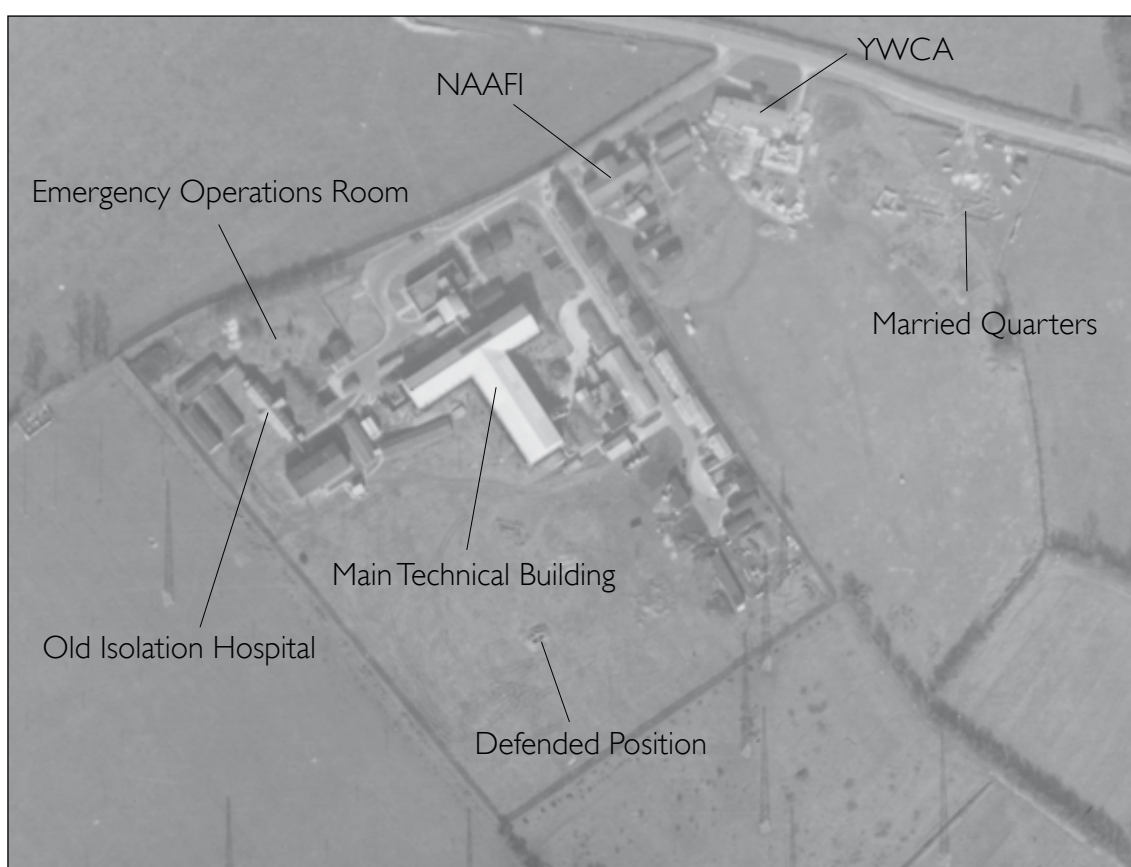


Figure 14: Aerial photograph showing RAF Stanbridge in 1950 (NMR RAF/58/374 5133 01-MAR-1950 English Heritage (NMR) RAF Photography).

By 1950, RAF Stanbridge had undergone little alteration since the end of the Second World War. On 1 March 1950, the YWCA was being demolished. In parallel the foundations for four of the married quarters houses were being laid. The blast wall surrounding the structure to the south-west of the main technical building had been taken down by this date (NMR RAF/58/374 5133 01-MAR-1950).

1964



Figure 15: Aerial photograph showing RAF Stanbridge in 1964 (NMR OS/64020 325 12-MAY-1964 © Crown copyright. Ordnance Survey).

By 1964, RAF Stanbridge had undergone considerable expansion. The vast majority of the buildings from 1946 had been demolished with the exception of the main technical building and a number of ancillary structures. Surrounding the main apparatus building, a fence had been constructed. The station had now expanded to the south and west. Construction of the married quarters (No. 17) was also now complete. To the north of the apparatus building was the guardhouse (No. 6), which contained the fire section, and a number of other structures including the station's flagstaff (NMR OS/64020 325 12-MAY-1964).

South-west of the apparatus building, five new accommodation blocks (all named after famous scientists involved in the development and understanding of radio: Marconi (No. 12) Appleton (No. 11), Rutherford (No. 13), Maxwell (No. 15) and Fleming House (No. 14)) had been constructed. These were two storey, flat roofed structures constructed

from concrete panels. To the west of Appleton House was the 'Long Haul Restaurant'. This was a one storey building with a centralised second storey. Constructed at the northern extent of the base was the mechanical transport section (No. 7). This comprised of two rectangular buildings within a fenced compound. At the southern extent was the firing range. Steam heating pipes were also laid underground in brick lined channels which were capped with concrete slabs by 1964 (NMR OS/64020 325 12-MAY-1964).

By 1964, the vast majority of the lattice work towers had been dismantled; only four survived. To the north-west of the Officer's Mess (No. 20), 11 poles had been erected. The function of these is unknown (NMR OS/64020 325 12-MAY-1964).



Figure 16: Aerial photograph showing RAF Stanbridge in 1991 (NMR OS/30503 018 08-SEPT-1991 © Crown copyright. Ordnance Survey).

1991

By 1991, RAF Stanbridge had undergone further substantial change. The main technical building had seen major alterations by adding a second floor and a large single storey rectangular building (38.27m x 44.65m) to the south-east. During the alterations of the apparatus building, structures to the east were demolished. The demolition rubble was then used in the expansion of the earthen bund to the east of the main technical building (NMR OS/30503 018 08-SEPT-1991).

In the west of the site, a complex of two storey brick built Junior Ranks accommodation was constructed prior to 1991. Three of the old accommodation blocks, Marconi, Appleton, and Rutherford House, had been refurbished by 1991 and a connecting structure was constructed. This new structure was the 'Movements Wing' called 'Airbridge House' (No. 23). RAF Stanbridge was also provided with a Hawker Hunter as base guardian (No. 22) (NMR OS/30503 018 08-SEPT-1991).

DISCUSSION AND CONCLUSION

Operational in 1939, RAF Leighton Buzzard (later to become known as RAF Stanbridge) was the nerve centre for the majority of the landline teleprinter communications as well as the private speech telephone system during the Second World War. It also acted as the W/T reception station for international RAF communications. In 1945 some of the technical buildings were re-designed. This was to enable the station to increase its range and capacity for Far East traffic.

The Air Defence of Great Britain's (ADGB) Emergency Operations Room (EOR) was located within the technical site until it became converted to house teleprinters. Whilst not required by the ADGB, the EOR was used to train plotters in the most up-to-date techniques. RAF Leighton Buzzard also housed a Frequency Measuring Room. This contained the RAF's most accurate frequency measuring apparatus which functioned on home and overseas services and as a check for the GPO wavemeter at Baldock. Experiments were also carried out on site to investigate the effects of keeping pigeons underground under battle conditions.

Personnel stationed at RAF Leighton Buzzard during the Second World War were billeted in a number of hostels in the town. Eventually, the camp at Marley Tiles Works was expanded to cope with the number of personnel required to man the station. However, three months after the camp was completed, discussions began in relation to decommissioning the site.

In 1950 work started on constructing married quarters on site; these were completed c.1964. Expansion of other accommodation and facilities had also been complete on site by 1964. The majority of RAF Stanbridge's lattice work towers had also been dismantled by this point; only four survived. However, to the north-west of the Officer's Mess, an array of 11 poles had been erected. The function of these is unknown.

During the 1980s, RAF Stanbridge became the site of the RAF's main logistic computer. This was responsible for monitoring all RAF logistics records throughout the world. In 1986, the main apparatus building underwent major alterations: a second storey was added and an out building was constructed to the south-east. Currently, the field to the south-east of the main technical building is on the Defence Estate's disposal list. This research has identified that this area has only be used for the erection of masts. No physical features associated with RAF Stanbridge survive within this field.

SURVEY METHODOLOGY

All readily available aerial photographs were consulted and examined stereoscopically where possible. The best photographs for specific information were selected for rectification. Only features associated with Cooling Radio Station were recorded.

The air photo transformations were carried out using the University of Bradford's Aerial5.29 photo rectification program. Control information was taken from the digital copied of current OS 1:2500 scale maps. All digital transformations are, therefore, accurate to within circa 5m of true ground position, and typically less than 2m to the base map.

The transcription was produced in AutoCad by tracing the archaeology from the transformed and georeferenced aerial images. There were some difficulties with the rectification/transformation as some of the control points are obscured by vegetation and boundaries have been removed and altered since some of the key photographs were taken.

GLOSSARY

AA	Anti Aircraft
ADGB	Air Defence of Great Britain
EOR	Emergency Operations Room
MI8	Military Intelligence 8
NAAFI	Navy, Army and Air Force Institutes
NCO	Non Commissioned Officer
OR	Other Rank
RSS	Radio Security Service
SAA	Small Arms Ammunition
Station X	Bletchley Park
W/T	Wireless Transmitter
WAAF	Womens Auxiliary Air Force

REFERENCES

Primary Documents

TNA: PRO AIR 2/2809 *WIT Receiving Station, Leighton Buzzard: Location and operation* 1937-40

TNA: PRO AIR 2/2901 *WIT receiving station, Leighton Buzzard: land line communications* 1938-41

TNA: PRO AIR 2/4547 *Leighton Buzzard and Dagnall WIT stations: provision of 'K' buildings* 1940

TNA: PRO AIR 2/4812 *RAF Leighton Buzzard: accommodation matters* 1941-3

TNA: PRO AIR 2/4813 *RAF Leighton Buzzard: accommodation matters* 1943-5

TNA: PRO AIR 2/4814 *RAF Leighton Buzzard: accommodation matters* 1945-6

TNA: PRO AIR 2/7306 *Defence of RAF Station, Leighton Buzzard, and its sub-stations* 1940-1

TNA: PRO AIR 28/457 *Leighton Buzzard* 1918-44

TNA: PRO AIR 29/2644 *Central Communications Centre, Stanbridge* 1956-60

TNA: PRO AIR 29/4266 *RAF Communication Centre, Stanbridge* 1971-5

TNA: PRO AIR 29/714 *Plotters' School, Leighton Buzzard* 1939-41

Secondary Documents

English Heritage 2010 *The National Heritage Protection Plan: Interim version - December 2010* English Heritage

Flight 1959 'Signals Command: A Unique Formation: Latest of the RAF Commands' in *Flight* 13 November 1959

Flight 1959 'Signals Command: A Unique Formation: Latest of the RAF Commands Part 2' in *Flight* 20 November 1959

Flight 1962 'RAF 1962' in *Flight* 17 May 1962

Macksey, K 2003 *The Searchers: Radio Intercepts in Two World Wars* Cassell, London

Websites

Handmade by Machine www.thunder-and-lightnings.co.uk/hunter/survivor.php?id=173
accessed 04/04/2011

RAF www.raf.mod.uk/organisation/stations.cfm?selectStation=9E064B01-DEFF-1526-CEF8F7F760DB54C9 accessed 22/10/2010

Aerial Photographs

NMR RAF/CPE/UK/1897 3271 12-DEC-1946 English Heritage (NMR) RAF Photography

NMR RAF/58/374 5133 01-MAR-1950 English Heritage (NMR) RAF Photography

NMR OS/64020 325 12-MAY-1964 © Crown copyright. Ordnance Survey

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P/G 29724/008 © Crown copyright. NMR

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APPENDIX A: 1940S GAZETTEER

No structures survive from the first phase of RAF Stanbridge. The footprint of the main apparatus building and the earthen bund do survive; however, they were heavily altered during the 1980s.

The following building descriptions only include those structures whose function could be identified, or those for which an image could be located.

TECHNICAL BUILDING

DATE: 1939

Building No: 1



Figure 17: The main technical building (PIG 28793/001 © Crown copyright. NMR).

FUNCTION

Main apparatus building

DESCRIPTION:

Single storey construction with brick built blast wall protected by an earthen bund, this structure underwent substantial alterations during the 1980s. During alternations, a second storey and additional outbuilding were constructed.

CURRENT STATUS:

Still Standing

YWCA

DATE:

Building No: 5

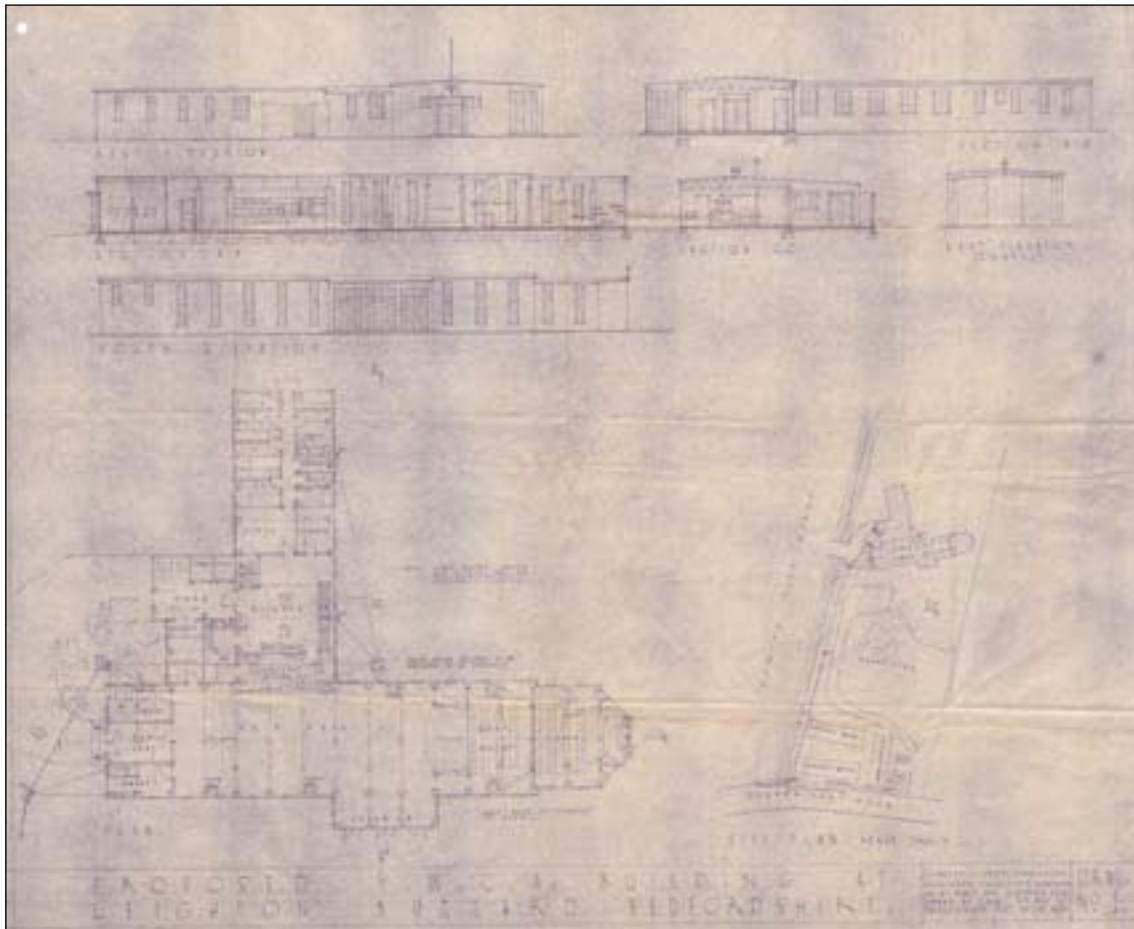


Figure 18: Proposed plan for the YWCA (TNA: PRO AIR 2/4813).

FUNCTION

Entertainment

DESCRIPTION:

Single storey structure.

CURRENT STATUS:

Demolished

NAAFI ACCOMMODATION

DATE: 1945

Building No: 3

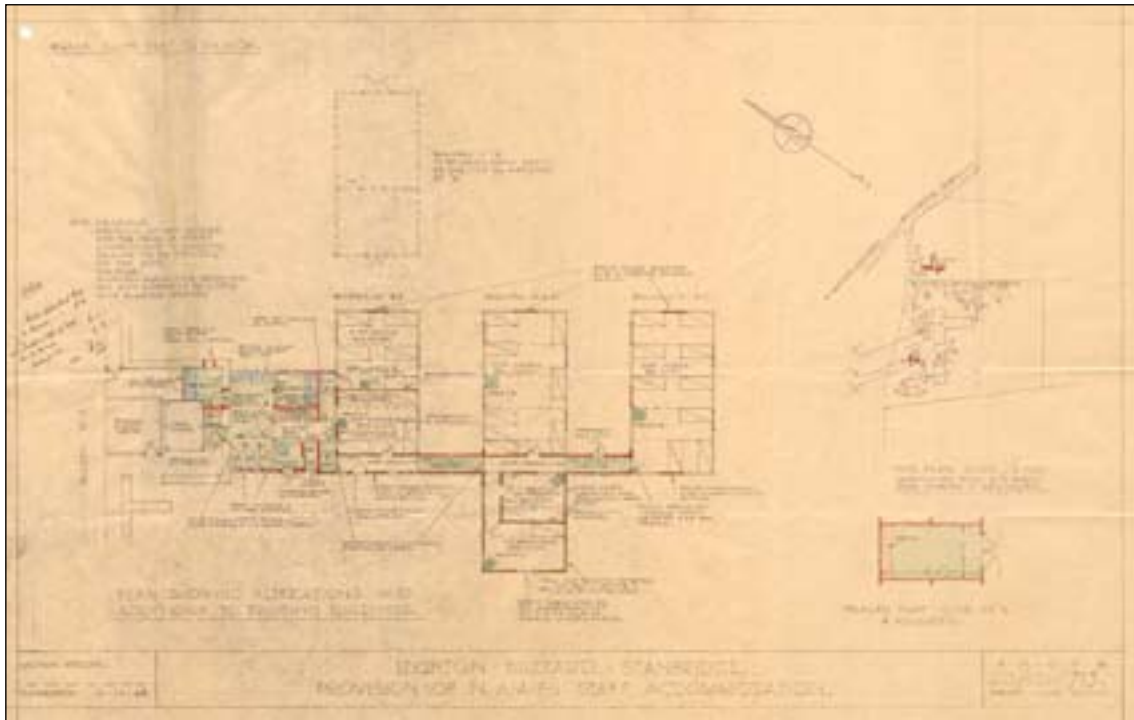


Figure 19: Alterations required to provide accommodation for NAAFI staff (TNA: PRO AIR 2/4814).

FUNCTION

Accommodation

DESCRIPTION:

In December of 1945, financial approval was given to convert lecture rooms into accommodation for NAAFI staff (TNA: PRO AIR 2/4814 24A).

CURRENT STATUS:

Demolished

UNKNOWN STRUCTURE

DATE: c.1946

Building No:



Figure 20: Unknown structure (PIG 28793/003 © Crown copyright. NMR).

FUNCTION

Unknown

DESCRIPTION:

Two storey high, wood panelled structure with windows under the eaves. During the Second World War, this structure was protected by a blast wall constructed to its eaves. This indicates that important equipment was kept inside. However, the structure is similar in style to a gymnasium.

CURRENT STATUS:

Demolished

APPENDIX B: 1960S GAZETTEER

Between 1946 and 1964, RAF Stanbridge underwent massive expansion. Although the main technical building underwent no alterations, on site accommodation was constructed.

MECHANICAL TRANSPORT SECTION

DATE: c.1964

Building No: 7



Figure 21: Mechanical Transport Section (PIG 28850/001 © Crown copyright. NMR).

FUNCTION

Transport Section

DESCRIPTION:

Single story structure set within a compound with garages and workshops.

CURRENT STATUS:

Demolished

GUARDHOUSE AND FIRE SECTION

DATE: c.1964

Building No: 6



Figure 22: Guardhouse and Fire Section (PIG 28793/006 © Crown copyright. NMR).

FUNCTION

Guardhouse and Fire Section

DESCRIPTION:

Single storey structure.

CURRENT STATUS:

Demolished

THE LONG HAUL RESTAURANT

DATE: c.1964

Building No: 9



Figure 23: The Long Haul Restaurant (PIG 28850/020 © Crown copyright. NMR).

FUNCTION

Mess

DESCRIPTION:

Single storey, concrete panelled structure laid out in the shape of an 'H'. The central section of this building was two stories high.

CURRENT STATUS:

Demolished

FLEMING, MAXWELL, APPLETON, RUTHERLAND, MARCONI HOUSE

DATE: c.1964

Building No: 11, 12, 13, 14, 15



Figure 24: Fleming and Maxwell Houses (PIG 28850/026 © Crown copyright. NMR).

FUNCTION

Accommodation

DESCRIPTION:

Pre-fabrication concrete panel two storey high structures.

CURRENT STATUS:

Demolished

SCHOOL

DATE: c.1964

Building No: 8



Figure 25: School Building (PIG 28850/034 © Crown copyright. NMR).

FUNCTION

School

DESCRIPTION:

Single storey structure.

CURRENT STATUS:

Demolished

APPENDIX C: 1990S GAZETTEER

During the 1980s, RAF Stanbridge underwent substantial changes. New Junior Ranks accommodation was constructed, Appleton, Rutherford, and Marconi House were demolished and replaced with a new Movement Wing, and the Technical Building underwent substantial alterations. In February 1974, the 'Blue Angel' was demolished (TNA: PRO AIR 29/4266) and prior to 1991 a number of other buildings were removed from the site.

NEW OFFICERS' MESS

DATE: c.1991

Building No: 20



Figure 26: New Officers' Mess (PIG 29724/012 © Crown copyright. NMR).

FUNCTION

Mess/Accommodation

DESCRIPTION:

Two storey brick built structure.

CURRENT STATUS:

Demolished

JUNIOR RANKS ACCOMMODATION

DATE: c.1991

Building No: 21



Figure 27: Junior Ranks Accommodation (PIG 29724/004 © Crown copyright. NMR).

FUNCTION

Accommodation

DESCRIPTION:

Two storey brick built structure.

CURRENT STATUS:

Demolished

MOVEMENT CENTRE/AIRBRIDGE HOUSE

DATE: c.1991

Building No: 23



Figure 28: Movement Centre (PIG 29724/008 © Crown copyright. NMR).

FUNCTION

Unknown

DESCRIPTION:

Single Storey structure.

CURRENT STATUS:

Demolished

BASE GUARDIAN

DATE: 1974

Building No: 22



Figure 29: Base Guardian (PIG 28793/006 © Crown copyright. NMR).

FUNCTION

Base Guardian

DESCRIPTION:

Hawker Hunter F.5s (WPI90). WPI90 served with I Squadron, based at RAF Tangmere, and saw action during the Suez Crisis. Retired from active service in 1958, WPI90 became an instructional airframe. In 1974, WPI90 became the gate guardian at RAF Stanbridge. WPI90 is one of only two Hawker Hunter F.Mk.5s in existence and possibly represents the only preserved RAF aircraft which took part in the Suez Crisis (<http://www.thunder-and-lightnings.co.uk/hunter/survivor.php?id=173> accessed 04/04/2011).

CURRENT STATUS:

Removed, now at Tangmere Military Aviation Museum

EXTENSION TO MAIN TECHNICAL BUILDING

DATE: 1986

Building No: 1



Figure 30: Extension to main Technical Building (PIG 28793/003 © Crown copyright. NMR).

FUNCTION

Unknown

DESCRIPTION:

Single storey structure.

CURRENT STATUS:

Still Standing

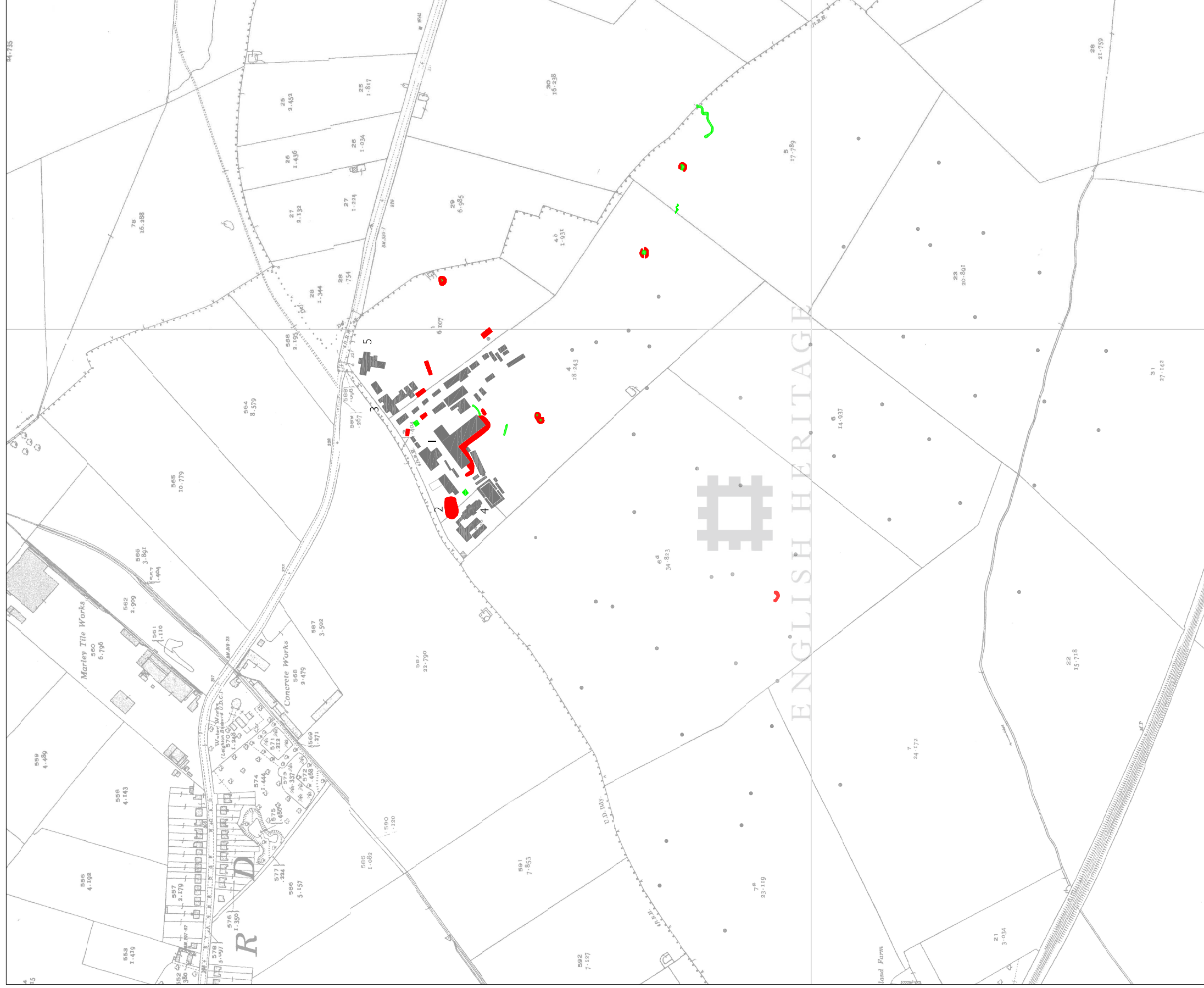


Figure 31: Aerial photographic transcription of RAF Leighton Buzzard in 1946 (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

KEY

- Bank
- Ditch
- 1: Main Technical Building
- 2: Emergency Operations Room
- 3: Mess
- 4: Old Isolation Hospital
- 5: YWCA

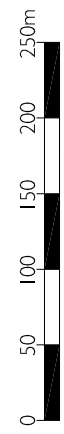




Figure 32: Aerial photographic transcription of RAF Stanbridge in 1964 (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

KEY

- Bank
- Ditch
- 1: Main Technical Building
- 2: Emergency Operations Room
- 3: Mess
- 6: Guard Room and Fire Section
- 7: Motor Transport Section
- 8: School
- 9: The Long Haul Restaurant
- 10: Generator
- 11: Appleton House
- 12: Marconi House
- 13: Rutherford House



- 14: Fleming House
- 15: Maxwell House
- 16: The Pavilion
- 17: Married Quarters
- 18: Firing Ranges
- 19: Garages



Figure 33: Aerial photographic transcription of RAF Stanbridge in 1991 (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

KEY

■ Bank

■ Ditch

- 1: Main Technical Building
- 6: Guard Room and Fire Section
- 7: Motor Transport Section
- 8: School
- 9: The Long Haul Restaurant
- 10: Generator
- 11: Appleton House
- 12: Marconi House
- 13: Rutherford House
- 14: Fleming House

- 15: Maxwell House
- 16: The Pavilion
- 17: Married Quarters
- 20: Officer's Mess
- 21: Junior Ranks Accommodation
- 22: Base Guardian
- 23: Movement Centre/Airbridge House

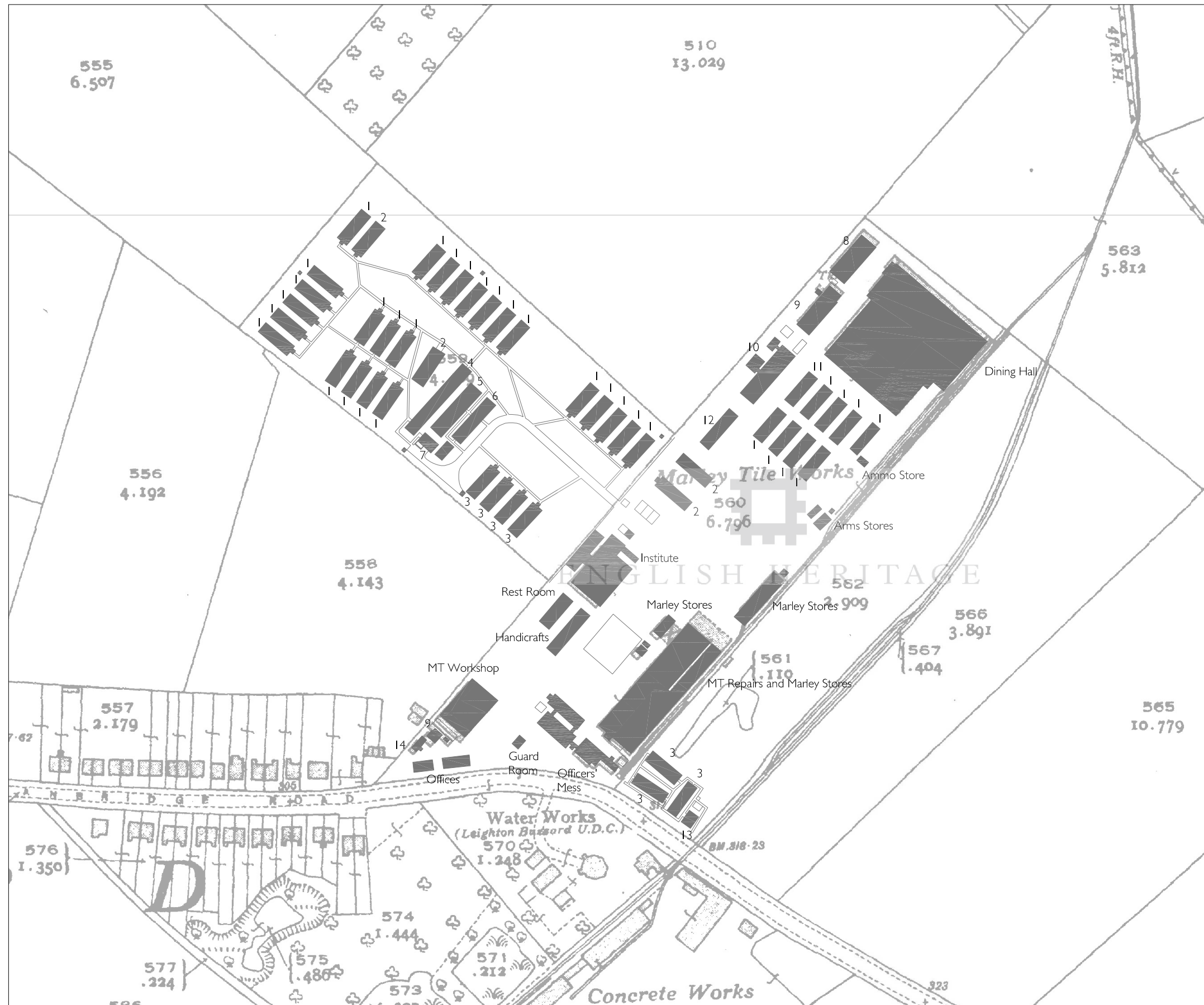


Figure 34: Plan of Marley Tile Camp after TNA: PRO AIR 2/4814 (© Crown Copyright and database right 2011. All rights reserved. Ordnance Survey Licence number 100019088).

KEY

- 1: Barrack Blocks
- 2: sergeants Quarters
- 3: Officers' Quarters
- 4: Baths, Showers and Drying Room
- 5: Ablutions, Drying Room and Hairdressers's Shop
- 6: Officers' and Sergeants Ablutions, Baths, Showers and Latrines
- 7: Boiler House
- 8: Cobblers', Tailors' and Barber's Shop
- 9: Ablutions and Latrines
- 10: Sergeants Mess
- 11: Ablutions, Baths and Latrines
- 12: Medical Inspection and Dentist
- 13: Officers' Showers, Latrines and Ablutions
- 14: MT Rest Room

Figure 35: Proposed layout of the main technical building (after TNA: PRO AIR 2/2809).

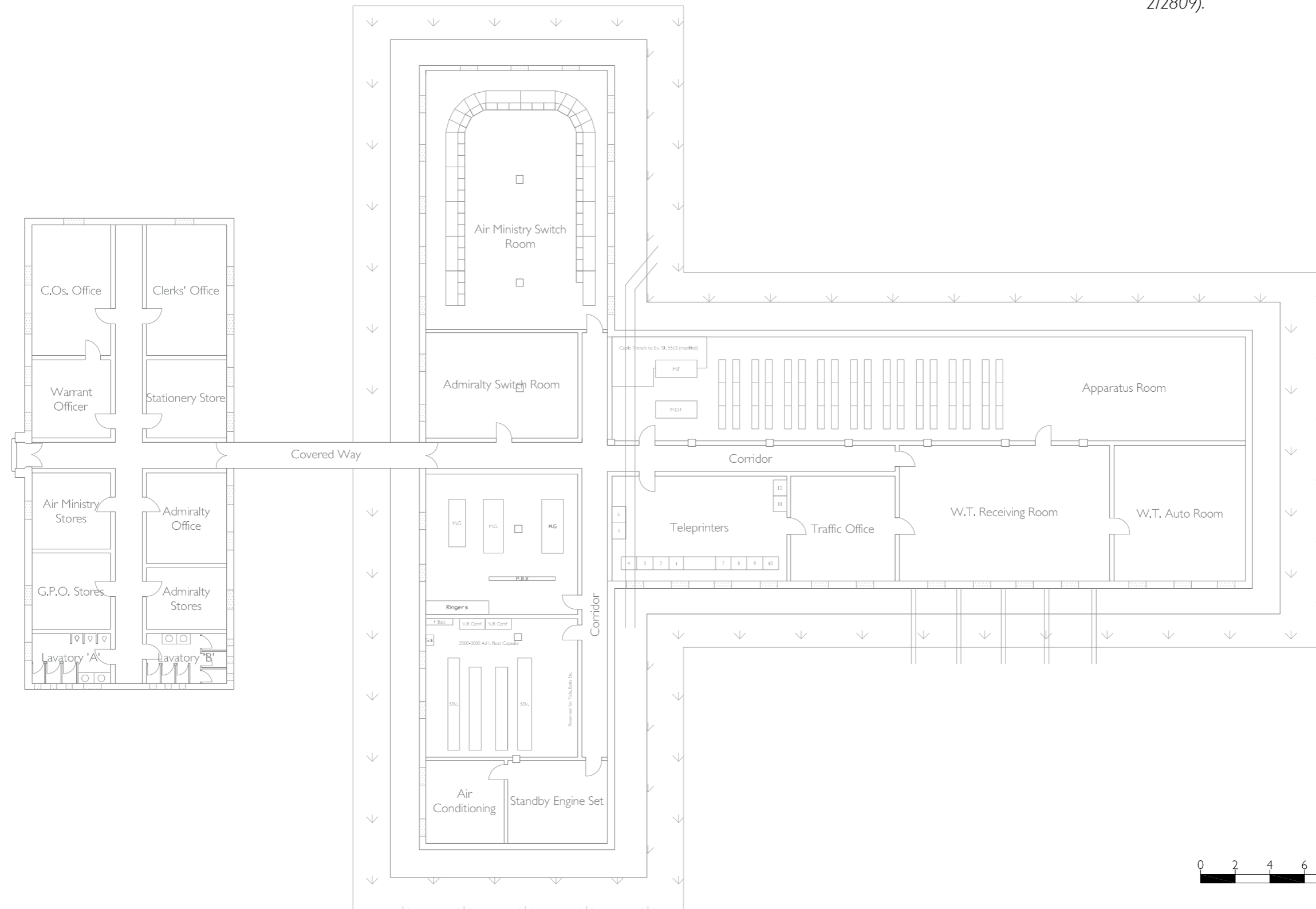


Figure 36: Proposed layout of the YWCA at RAF Leighton Buzzard (after TNA: PRO AIR 2/4813).

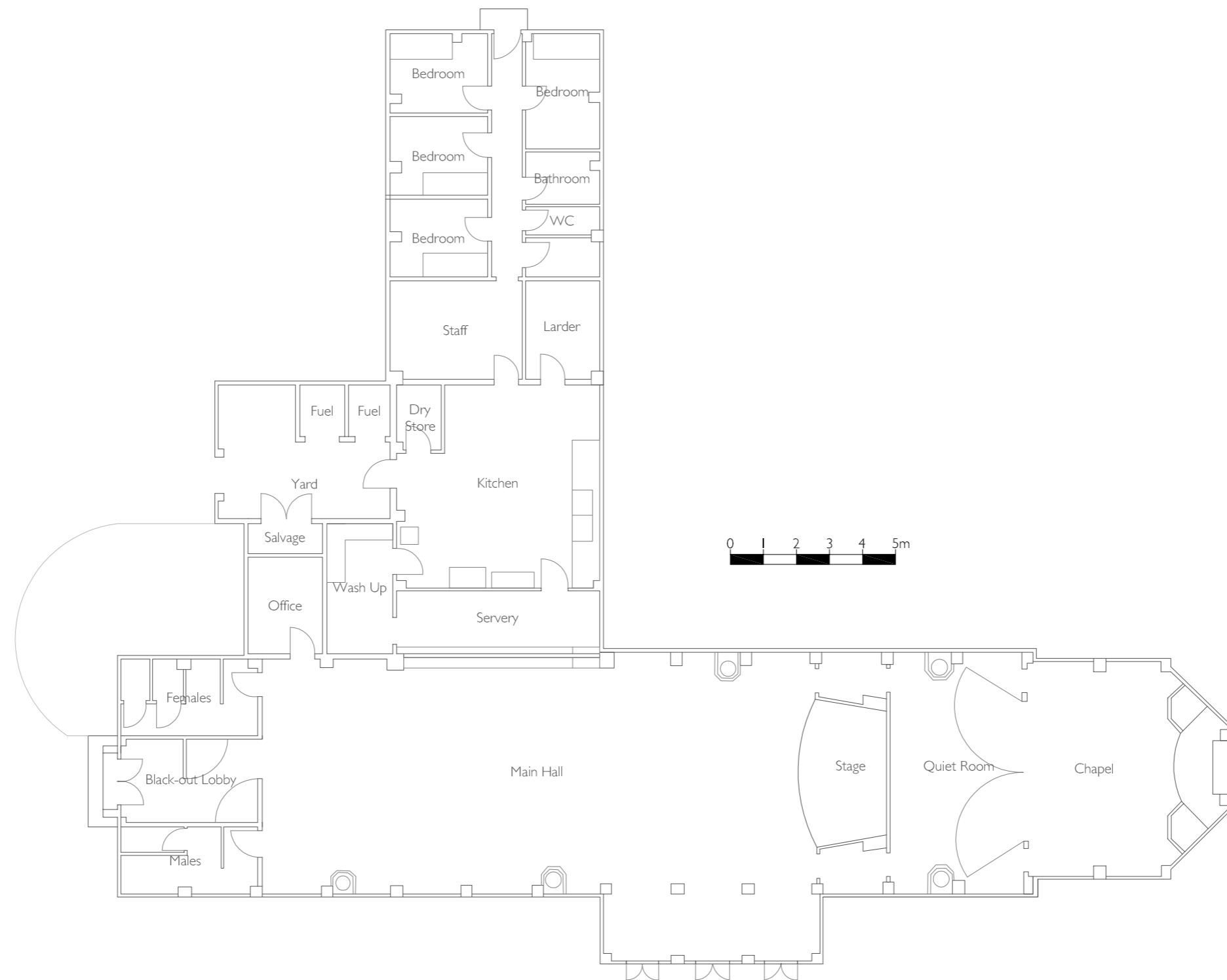
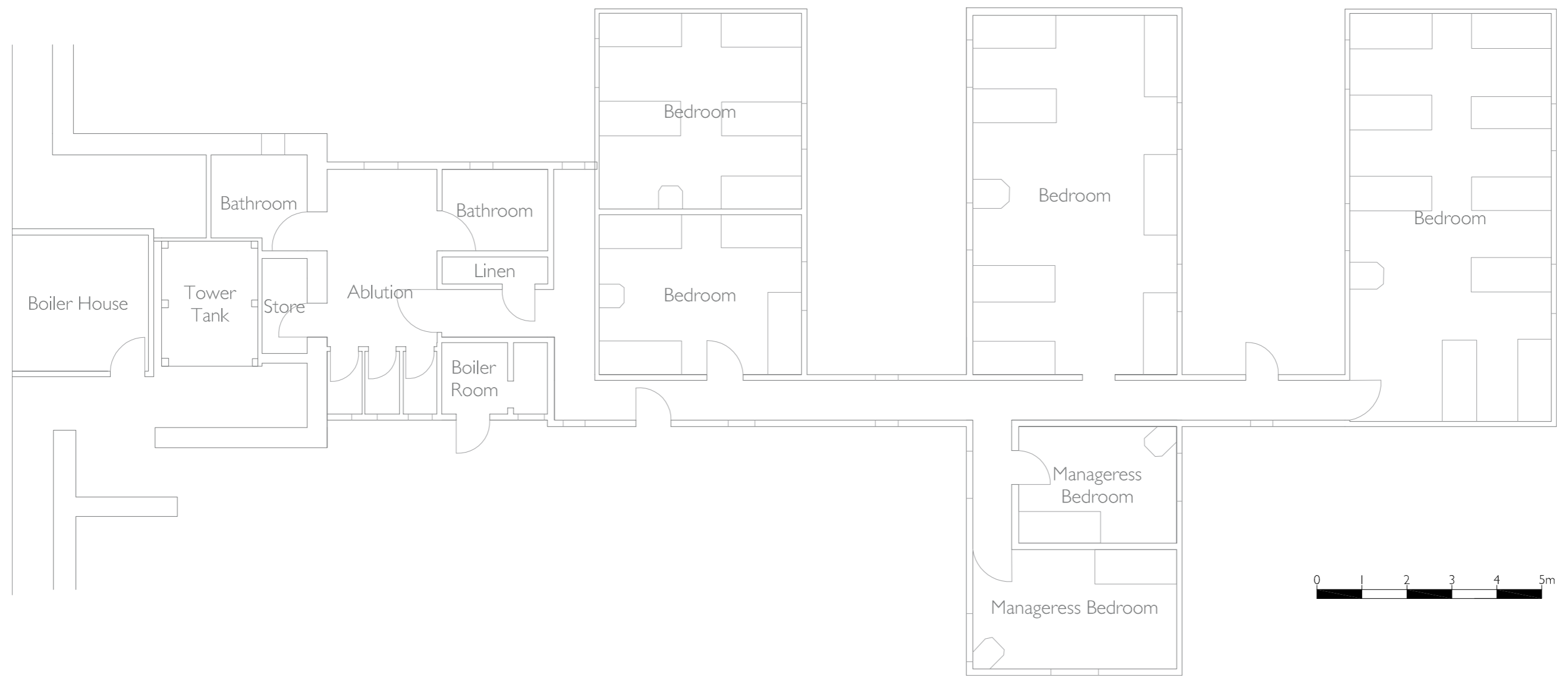


Figure 37: NAAFI accommodation on the technical site (after TNA: PRO AIR 2/4814).





ENGLISH HERITAGE RESEARCH DEPARTMENT

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- * Aerial Survey and Investigation*
- * Archaeological Projects (excavation)*
- * Archaeological Science*
- * Archaeological Survey and Investigation (landscape analysis)*
- * Architectural Investigation*
- * Imaging, Graphics and Survey (including measured and metric survey, and photography)*
- * Survey of London*

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