

HS2 WPO29 – Historic Environment Works – Washwood Heath Depot – Enabling Works North Contract

Final Report for Historic Building Recording Survey

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1 Executive Summary

- 1.1.1 This report describes the historic building recording carried out at the former Midland Railway Carriage and Wagon Co. Ltd at Washwood Heath, Warren Road, Birmingham (NGR 410436 289060). The on-site recording was undertaken between the 22nd May 2018 and the 25th May 2018.
- 1.1.2 The historic building recording was required in order to create an historical record of the site prior to its demolition. The objective of the investigation was to gain information about the historical resource in order to support an assessment of its character, extent, the outcome of the investigation can be used to inform future decision-making on the requirement for further investigation at the site, and a strategy for achieving it.
- 1.1.3 The building recording addressed eight ranges of buildings which form part of an associated group, on a site immediately north of Warren Road and to the south of the former railway sidings. The site contains an engine house, boiler room and the remains of a factory chimney stack. Research has managed to identify only a small number of documents relating to the site, crucial to which are two plans which show the function of each of the spaces within the complex in 1929 and 1948.
- 1.1.4 A record of setting has been made in line with Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037). The level of setting recording for this site was 'Simple' and Section 6.3 includes a written description of the current setting of the asset accompanied by relevant photographs and mapping to illustrate key elements of setting.
- 1.1.5 Review of historical mapping and aerial photographs indicates that the layout of the former wagon and coach works has changed little since its peak period of production in the middle of the 20th century. The asset's close proximity to the main railway line between Derby and Birmingham, which it once served, forms a key element of setting. The relationship between the asset and the railway line allows for an understanding of the siting of the works and an experience of how it would have functioned when in use. In its original setting the asset would have had a contextual and associational relationship with other works nearby, including Joseph Wright's factory at Saltley (1km to the south west), and with the surrounding community who would have provided the labour force required for the running of the works. However, the decline in heavy industry and growing urbanisation of the area has altered the setting of the asset, leaving the buildings isolated in a post-industrial landscape. Steady incremental changes made to the works over time, such as addition of modern cladding, has reduced its impact as a symbol of Birmingham's industrial past. Its lack of visibility from the public realm, coupled with

its closure as a major engineering works in 2004 will have impacted heavily on its value to the local community, and this is likely to diminish further over time.

- 1.1.6 Limited documentary evidence has been found to assess the full impact of the two World Wars on the site, although it is known that during the First World War the works was used as a shell factory. A document from the National Archive has identified the location of the different types of shell being produced within the factory, but air raid shelters now seem to be the only remaining physical evidence on site of how the works were made ready to weather the growing threat from aerial bombardment in the Second World War.
- 1.1.7 The survey has revealed the survival of features relating to early power generation on the site, and below ground remains have been identified on a plan of the site from 1929 which shows a tunnel system which may add to a better understanding of how that power was transmitted around the site. This lack of a clear understanding as to the function of the tunnel could warrant further investigation. It should be considered that community engagement could have a role to play in gaining a clearer understanding of the function of the tunnels; for example, community engagement could result in the collection of oral histories which might explain how the tunnels were constructed and/or used. The significance of the site and the area as hub for heavy industry has been eroded by the closure of the works and other industrial sites, and the aesthetic and architectural merit of the remaining original buildings on site is limited by their utilitarian design.
- 1.1.8 The survey has highlighted that very little research has been undertaken on factories producing wagons and carriage which were once a common feature in the railway landscape of the late 19th century and early 20th century. The principle focus of research is centred on development of engines, although Historic England has done research and produced a report to improve our understanding of the significance of railway buildings.

2 Site Location, Extent and Condition

- 2.1.1 The current Washwood Heath Depot Site comprises a number of undesignated industrial buildings in the Washwood Heath area of Birmingham. It is located to the east side of the railway adjacent to Aston Church Road and to the south-west of an unnamed access road off the A47. To the east of the site is Common Lane, and the south side of the site is bounded by properties along Warren Road (Figure 1, Appendix A). There are presently eight large undesignated buildings on the site which are the subject of this report. All of the buildings are constructed from brick with steel framing and largely comprised a series of long, linear, gabled sheds arranged in continuous blocks.

- 2.1.2 The buildings were in a good state of repair at the time of recording; however, some were no longer water tight and a significant growth of vegetation was noted in the rain water valleys.

3 Site Background

- 3.1.1 This group of undesignated buildings were formerly part of the Midland Railway Carriage and Wagon Co. Ltd. located at Washwood Heath. For the purpose of the recording, the buildings have been broken down into blocks and labelled A, B, C, D, E, F, G and H (Figure 3; Appendix A). Additional numbering of the buildings was undertaken using an alpha-numeric code to accurately locate the photographic record (Figures 4 and 5; Appendix A).
- 3.1.2 The site comprises an extensive complex of industrial buildings within a well-defined boundary formed to the south by terraced housing of late 19th and early 20th century date and a school. The land to the north that contained the 19th century Washwood Heath Railway Sidings has now been redeveloped.
- 3.1.3 The buildings on site are constructed of brick and largely and comprise a series of long, linear gabled sheds arranged in contiguous blocks. The majority of the structures are thought to have been constructed around 1910 by the Midland Railway Carriage and Wagon Co. who bought the 51-acre former allotment site in 1907 in order to expand a successful wagon and carriage work business that had been established at Saltley Works, on nearby Landor Street (Graces Guide to British Industrial History (a), 2018).
- 3.1.4 In 1919, Cammell Laird Ltd began the manufacture of rolling stock in Nottingham and, along with this new venture, obtained a controlling interest in the Midland Railway Carriage & Wagon Works at Washwood (Graces Guide to British Industrial History (a), 2018). Alongside the Vickers-owned Works at nearby Saltley, production at the site was very successful and in 1929 Vickers and Cammell Laird merged their rolling stock interests to form the Metropolitan-Cammell Carriage & Wagon Co Ltd, after which the Washwood site became known as the Metro-Cammell Midland Works to distinguish it from the works at Saltley.
- 3.1.5 In 1962 the Saltley Works closed down and all manufacturing was moved to the Washwood site (Stoten, 2005). The Works remained operational until the early 21st century, when cheaper competition from abroad and the privatization of British Rail led to the decline of Metro-Cammell Laird. In 1989 the company was sold to GEC Alstom. The Washwood site closed in 2004 after almost 100 years of production, with the last trains to be built at the plant being the Class 390 'Pendolino' tilting trains for the West Coast Main Line modernisation.

4 Aims and Objectives

- 4.1.1 The aims of the historic building recording programme were to assess and record the character, extent and significance of the building. The recording programme aimed to contribute to the following specific HERDS Knowledge Creation objectives, as outlined in Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015), section 6.6:

Table 1: Contribution to Specific Objectives

Specific Objective	Contribution
KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.	The building recording should help characterise the site and allow comparisons to be made with the siting and amenities of other carriage works in the area, as well as developing a better understanding of the role and impact of the Midland Works in the development of the townscape and layout of Washwood Heath settlement.
KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?	It is anticipated that building recording at Washwood should help more closely define the role of the site, its staff and local community in the conflict. It should also help develop a greater understanding of any adaptations that were made at the site to accommodate social or working arrangements that were part of the war effort.
KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives.	The building recording should help establish a sound basis for further engagement with local people and former employees as part of additional research (to be dealt with under a separate Project Plan), that will capture important oral historical evidence for the use of the site, and its relationship with the local community in the past and into the future.
KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we recognise changing public perceptions of railway infrastructure and associated buildings over time?	Prior to the removal of these assets, it is anticipated that building recording will provide an opportunity to assess their character and record their significance. To date, railway and technology historians have strongly focussed on the development and production of engines and very little research has been undertaken into the manufacture of carriages and wagons. This work should help develop a better understanding of this important aspect of railway infrastructure by focussing on a purpose-built site for the manufacture of carriages.

5 Methodology

- 5.1.1 This historic building recording survey follows the detailed methodology laid out in the Project Plan for Washwood Heath Depot (formerly the Midland works) (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo8-029000), March 2018, and the HS2 WPO29 – Historic Environment Works – Washwood Heath Depot and Saltley Trading Estate – Enabling Works North Contract Location Specific Written Scheme of Investigation (LSWSI) for Historic Building Recording Survey (Doc No: 1EW04-LMJ-EV-MST-NS03_NLo8-029000), August 2018. These documents cover the methodology for all parts of the investigation, including archive research (LSWSI Section 6.2), details of site access (LSWSI Section 6.3), photographic record (LSWSI Section 6.4), written record (LSWSI Section 6.5), drawn record (LSWSI Section 6.6) and reporting (LSWSI Section 6.7).
- 5.1.2 Prior to and during the on-site historic building recording, a number of archival sources were consulted relating to the design, construction, use and alterations made to the buildings over time. These sources were rechecked in December 2018 to add further clarification to the draft report submitted. A full list of sources consulted is reproduced in Table 3 below. A detailed map regression was undertaken on all publicly accessible Ordnance Survey maps from the First Edition to the present day.
- 5.1.3 The photographic record accompanies a written record made of the exterior and interior of the buildings using AOC *pro forma* recording sheets which were filled out for each building or large internal space. Where groups of spaces were wholly modern then a single record sheet was completed. Comments were made on the condition, construction and materials used, as well as architectural features and any evidence for phasing or past industrial activity. Modern interventions were also noted.
- 5.1.4 In order to orientate the reader, the site has been divided into a number of individual blocks, each of which has been identified by a letter (A-H) (Figure 3: Appendix A). As no plan of the site could be supplied, further subdivisions within these blocks have been created (Figure 4: Appendix A) to orientate the photographic record (Appendix C) and to identify the location of specific features. An alpha-numeric code has been allocated to each of these subdivisions, with a sequential number suffix added to the block code eg. A4 (Figures 4-5: Appendix A). Where further subdivisions were required in buildings with multiple storeys, an additional letter has been used eg. C6a. As part of the description of the individual blocks a synthesis of the physical evidence and research has been added in an attempt to date, and define the past functions of that part of the complex.

- 5.1.5 Photographs were taken of the exterior and the interior of the buildings as well as shots taken of the buildings' setting. Some sketches were made of specific features or internal arrangements to aid in the final reporting. No specific on-site measured survey records were taken other than specific measurements which may aid in the phasing of the site. The photographic record was tied into a digital mapping of the area supplied by the Client (Appendix C).
- 5.1.6 The photographic record for the site was undertaken in colour, using a digital SLR with a 12 megapixel resolution (Nikon D300). The camera was set to record in both JPG and RAW format. A tripod was used in all areas of poor light and a flash gun employed to light dark areas. A 2m and a 1m ranging rod were placed in all shots where access and health and safety allowed. After the survey was completed the records were checked against the photographs and renumbered and the handwritten photographic recording sheets typed up so a register could be compiled (Appendix C).

6 Results

6.1 Archival Research

- 6.1.1 A full list of sources consulted can be found in Appendix D of this report and what follows is a summary of the data sourced.
- 6.1.2 A search and a visit to the Warwickshire County Records Office in early May 2018 did not produce any documents of relevance to the proposed area of development. Their archives included various plans regarding land at Washwood Heath with proposed plans of the Midland railway line: A 1934 plan shows lands at Washwood Heath, Birmingham, belonging to the City Gas Department, Electricity Board and the Canal Co (CR 1590/ P1413). This plan did not show any details of the site. A 1904 plan of the Midland Railway lands at Washwood Heath, and a 1913 plan of the Midland Railway Additional lands at Kingsbury, Bromford Bridge, Washwood Heath and Wixford also did not show the site.
- 6.1.3 The archives presented at the Birmingham City Archives in May 2018 did not contain any plans or documents relating to the Washwood Heath Depot, and a search for the Cammell Laird archives referenced only the Cammell Laird and Co Shipbuilders which are held at the National Archives, and not relevant to the Washwood Heath Depot.
- 6.1.4 A search of the historic mapping revealed that prior to the building of the works the area is shown as a series of enclosed field on the first edition Ordnance Survey map of 1886 (Appendix B: Plate 1) with Warrenhouse Farm to the south. There is a brick works in the fields to the east

of Common Lane, brick kilns to the west and the site of 'Old Clay Pits'. Also on the west side of the site there is the Saltley Cottage Hospital for 'contagious diseases', and to the north there is a complex of railway lines forming the Washwood siding of the Birmingham to Derby Railway line.

- 6.1.5 By the time of the second edition mapping in 1905 (Appendix B: Plate 2) the enclosed fields are shown as 'allotment gardens' and Saltley Cottage Hospital is no longer annotated, however, the building is extant. The brickworks to the east and the 'Old Clay Pits' are also shown.
- 6.1.6 By 1912 the Works at Washwood were fully operational. However, Ordnance Survey mapping published in 1917 (Appendix B: Plate 3) shows a 'blank' outline of the site with no details of any buildings or of its layout and use. This is due to the carriage works, in common with other industrial buildings across the midlands and northern Britain, being used as a National Shell Factory to produce munitions.
- 6.1.7 The National Archives at Kew were visited and produced a plan of the site as a Shell factory (Appendix: B Plate 5) but has limited annotation and is discussed below.
- 6.1.8 Mapping from 1920 (Appendix B: Plate 4), shortly after the first world war, fills in the missing blanks and provided on the earlier map and shows a detailed layout of the works, comprising six separate structures on an east-west alignment and accessed by railway lines from Washwood Heath Sidings.
- 6.1.9 By 1937 the Ordnance Survey mapping (Appendix B: Plate 8) shows only an outline of the buildings and the railway siding to the north, presumably disguising them prior to the onset of Second World War. The buildings to the north have been amalgamated into the central range of structures and Block F (Appendix A: Figure 4) has been extended to the west and the stepped gable on the current structures built.
- 6.1.10 The National Archive website presented 180 items including plans, maps and forms surrounding the Washwood Heath area. Nearly all of these archives were irrelevant to the Washwood Heath depot except for a single plan Ref. 1/1803/20 (Plate 5: Appendix B), showing the buildings at Washwood Heath in use as a National Shell Factory during the First World War. No key accompanies the plan and no specific date is attributed, however, the catalogue lists it as 1913-1918. A second visit was made to look at other plans relating to shell factories but these showed other sites around the country and had no relevance to site at Washwood Heath.
- 6.1.11 The plan ref. 1/1803/20 (Plate 5: Appendix B) shows areas highlighted in red and the sheds labelled with a letter. Interestingly, the northern sheds D1 to D5 (annotated as Block B on the

plan) are annotated '9.2" shell'. This would appear to indicate that during the First World War 9.2" shells casings were being manufactured in this part of the works. The 9.2" shell was used in weapons such as the 9.2 inch BL Howitzer Mk I nicknamed 'mother' which was introduced to the British army in 1914 and used by the 8th Siege Battery, seeing action for the first time at Nieppe and Warneton. The gun had a range of 10,000 yards and was predominantly a siege warfare weapon weighing in at 41 tons (Imperial War Museum (a), 2018).

6.1.12 The plan also shows that in B1 and B2 (annotated as Block E on the plan) 4.5" shells casings were being manufactured or filled. The 4.5" shell was used in mobile field guns with a 'high trajectory, and was one of the most widely used shells by the British Artillery during the First World War (Imperial War Museum (b), 2018)

6.1.13 On the plan the former engine house is marked as a 'Pumping house', and the southern half of sheds A5 and A6 (annotated as Block F on the plan) are being used as storage and a firing room. One would assume that this is a possible test range for smaller ordnance. A traverser mechanism is shown between Blocks A and B (annotated as Blocks E and F on the plan) and the front gate is marked with an X. It is unclear what the dashed lined represents on the plan, however, the form and layout of the buildings match those seen on the historic mapping from 1920 (Appendix B: Plate 4).

6.1.14 A search of the historic environment record office (HER) found that a desk-based assessment had been undertaken of the site into 2005 by Cotswold Archaeology. They had identified two historic plans which were not referenced but show the Midland Works in 1929 (Plate 6: Appendix B) and in 1948 (Plate 9: Appendix B). The table below summaries the functions of each of sheds and locates them within the current structures.

Table 2: Historic function of the sheds

Current building reference	Function in 1929	Function in 1948
A1-A2	Paint Shop	Paint Shop
A3-A5	Body Shop	
A3-A6		Body Shop
B1-B4	Wood Wagon Building and Repairs	Wagon Shop
B5-B6	Sawmill	Sawmill and Basement
Building between B6/A6	Part of the	Canteen

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	Finishing Shop	
C1-C4	Forge press Shop and Smithy Die Shop and Iron Store	Machine Shop
C1-C2		
C3-C4		
C5a		Smithy
C6a	Boiler House	Boiler House
C6C	Power House	Power House
D1-D9	Machine Shop	Old Machine Shop
E1-E2	E2 is marked as a template Shop	Undesignated but part of Frame Shop
F1-F3		Frame Shop
F1-F4	Frame Shop	
F4-F5		Frame Shop
F5	Frame Machine Shop	
G4	Not built	Machine Shop
G3	Wheel Forge/Iron Foundry	Roof Building/Foundry
G6a/G7	Not built	Pattern Shop
H1	Timber Drying Shed	Paint and Packing Shop

6.1.15 The unreferenced plans are the only records which identify the functions of each of the rooms and how they change over a 20 year period starting in 1929 (Plate 6: Appendix B). These plans clearly show a process flow the northern end of the site where there is an iron foundry and wheel Forge in 1929. While at the centre of the site there is a Frame Shop, a Machine Shop, Forge, Press Shop and a Smithy. At the southern end of the site in 1929 there is a Sawmill, a Paint and Finishing Shop. A tunnel is also shown on the plan running from the power house to the Sawmill, and the position of a traverser mechanism is marked between the two large sheds at the southern end of the site.

- 6.1.16 The plan from 1929 shows a gantry and bridge joining the machine shop to the north, and the 'wood wagon building and repair shed' to the south. This gantry and bridge can be seen on the aerial photograph taken in 1930 (Plate 7: Appendix B). Three other aerial photographs taken at the same time as the one illustrated are shown on the 'Britain from Above' website but with the Wolseley Motor Works being the main target.
- 6.1.17 A similar process flow to the one above can be deduced from the plan of the site created in 1948 (Plate 9: Appendix B), however, some of the buildings have been amalgamated; notably this occurs at the northern end of the site where the former iron foundry and wheel Forge have now been merged into one continuous building and joined to Blocks C, D, E and F. The western end of Block F has been extended to form the now familiar staggered gables present on the current sheds, and there is a gap shown between Blocks D and C. Air raid shelters on the southern side of Blocks A and B are clearly marked on the plan from 1948, and the building between Blocks A and B is marked as a Canteen. Building H has also turned from a timber drying area, into a paint and packing shop.
- 6.1.18 The National Railway Museum Archives contained a corporate film produced in 1992 for British Rail Network SouthEast by Blackrod. Chapter 2 was filmed inside the depot at Washwood Heath but is of little relevance to the current study as it focuses on trains rather than the building. The archives also contained various documents relating to railway accidents; including an accident returns document, three individual rail accident reports and two reports relating to a collision and fire. These documents were considered to be of little use for the current report. The archives did not produce any archives relating to the architectural design and drawings of the Washwood Heath premises.
- 6.1.19 The archives presented on the Metro-Cammell Archive website included a 1994 aerial photograph of the south-east of the site and a site plan of the Washwood Heath premises with numbering; however, no key accompanies the illustration. On the same website there was a drawing of the site made in 1962, presumably when manufacturing was moved from the Saltley site. The drawing is entitled Metropolitan Cammell Carriage and Wagon Co Ltd, Midland Works (Plate 10: Appendix B).
- 6.1.20 The lack of information available on the site in any of the archives consulted may indicate that by the time production ceased in 2004 much of the material relating to the works past operations had been lost, probably when the site came under new ownership from 1989. It is possible, however, from the data presented to produce a phase plan of the development of site over time (Figure 2). It is now possible to show that the majority of the early buildings survive at the southern end of the site comprising Blocks A and B, and in middle of the site the early

phase of buildings encompassing the eastern half of Block E, Block F and Block C including the engine and boiler house C6a and C6c.

- 6.1.21 Shortly after the Second World War major alterations take place at the northern end of the site where the two isolated sheds housing the former foundry and wheel Forge have been merged into one building and the gap between infilled by G4. The eastern end of C1 and C2 are also extended at this time and G2 is added to the northern side of G3. On the west side of Block F the sheds are extended forming the stepped gables and Block H is altered at the western end. An office block is shown on plans from 1929 and 1948 (Plates 6 and 9: Appendix B) to the south side of Block H, however this no longer exists and the main entrance to the site was probably moved to the west side when this fell out of use.
- 6.1.22 During the 1960s shed F5 is extended further west, and the gap in the centre of G3 is in filled. In the latter part of the 20th century the gap between blocks D and C are infilled and C3 is extended eastwards, infilling the gap between the boiler house and the post-war extensions to C1 and C2. Additional sheds are also built at the south-west corner of the site.

6.2 Building Descriptions

- 6.2.1 For the purpose of this report a descriptive record has been compiled for each of the buildings surveyed, highlighting features of interest. The information is taken from the room datasheets produced on site and, to aid the reader in their understanding of the buildings, photographic plates are used throughout the text. The full photographic record of the site is reproduced in Appendix C.
- 6.2.2 Photographs contained within Appendix C represents the full record of the site is referred to throughout the text in parentheses using the prefix 'Washwood' e.g. (Washwood023: Appendix C). A selection of illustrative images is reproduced within the text as plates, but this has been limited to make the size element of the document more manageable.

Block G

- 6.2.3 Block G forms the northern extent of the survey area (Plate 1), the bulk of which comprises two long linear open sheds (G3 and G4) orientated on an east to west axis (Washwood001: Appendix C). In addition to these two large open sheds, there is a range of smaller lean-to structures added to the north wall of G3, these appear to had been, in part, added to G2 by 1945 (Appendix A: Figure 2) and fully extended to their current form by the end of the 20th century. These later lean-to structures also subdivided with modern softwood partitions.

- 6.2.4 The buildings making up Block G share a common east-facing gable; however, the southern gables are stepped in plan to allow for the curve of the rail line to the west, presenting a series of staggered entrance points for rolling stock which have been added to the buildings by 1945 (Appendix A: Figure 2).
- 6.2.5 G4 and G3 both contain brick outer walls, the brick is laid using a common bond with three courses of stretchers to one course of headers, where openings have been in filled this has been done using a stretcher bonded brick. G4 and G3 have an internal steel superstructure supporting lightweight steel trusses and a roof covered by galvanised sheeting with skylights to each bay. The material covering the roof is wholly modern in appearance and dates from the late 20th century. At the western end of G3 and G4 the north wall has window openings each fitted with a multi-paned steel frame (Washwood011: Appendix C). The frames are contemporary with the walls, and date from the mid-20th century, when the site was extended.



Plate 1 View from the current entrance to the north-east with Block G in the foreground

- 6.2.6 The space between G3 and G4 is currently partitioned along its length by modern corrugated sheeting and contains paired vertical I-sectioned steel stanchions (Washwood002: Appendix C) that support the rainwater valley. To either side of the steel stanchions there are horizontally-mounted I-sectioned steel beams which run the full length of the sheds. At the western end of G4 the opposing brick walls have brick pilasters which also support a horizontally-mounted I-sectioned steel beam. The beams have foundry marks showing that they were manufactured by the Lanarkshire Steel Co. Ltd, Scotland (Washwood014: Appendix C). Grace's Guide to British Industrial History (2018) provides a brief background to the Lanarkshire Steel Co. which

was registered in 1897 and was nationalised in 1951 under the Iron and Steel Act becoming part of the Iron and Steel Corporation of Great Britain, it is likely therefore that the foundry mark present indicates that the steel work dates somewhere between 1897 and 1951.

- 6.2.7 The floor surface of sheds G₄ and G₃ are constructed from cast concrete, and have entrenched railway lines running the full length of the building connecting the roller shutter doors at either end (Washwood017: Appendix C).
- 6.2.8 As previously noted, G₂ is constructed as a later lean-to structure (Plate 2) which is open for much of its length, with G₁ to the north and G₃ to the south. At the western end of G₂ there is a modern single-storey office space (G₅), which has a corridor running along its length and a modern part-glazed partition to offices beyond, this part of the building was constructed in the later part of the 20th century and the offices are entirely modern.
- 6.2.9 Attached to the western end of G₃ there is a two-storey, brick-built structure (G_{6c}) which contains a drive-through train wash (Washwood114: Appendix C) and to the south of this, G_{4a} and G_{4b} are storage spaces that have a fire-proofed reinforced cast concrete jack-arched ceiling (Washwood112: Appendix C). This structure is extant by 1945 (Appendix A: Figure 2), but does not appear on the mapping from 1920 (Appendix B: Plate 4).
- 6.2.10 Although not part of the survey area, a small brick-built single-storey building was photographed to the north of G₃. This building had circular window openings in the eastern gable end and within a small tower (Washwood238: Appendix C). These features appear to date the structure to the latter part of the 19th century. The outer brick work combines three courses of stretcher bond, to one course of Flemish bonded brick.



Plate 2: Internal view of Block G showing G3 with G2 and G1 to the right of the photograph

- 6.2.11 Block G is probably the most altered part of the site, Originally being two stand alone sheds containing a wheel forge and a foundry (Appendix B: Plate 6), and it is possible that the sheds seen on the early plans were demolished when the site was expanded in the 1940's. Very little remains internally within these buildings to give an indication of their original function. The later attached offices to the north elevation were probably administrative in their later role and currently part of G1 contains high voltage electrical switching gear.
- 6.2.12 Throughout Block G a number of foundry marks were noted on the steel work of the stanchions and on the I-sectioned steel beams which run the full length of the sheds. These were as follows
- Lanarkshire Steel Co. in G4 (noted above)
 - Cargo Fleet Iron Co. in G3
 - Dorman Long and Co. in G3, E3
 - Appleby-Frodingham Steel Co. in G3
- 6.2.13 Grace's Guide to British Industrial History provides a brief background to each of these companies. The Lanarkshire Steel Co. was registered in 1897 and was nationalised in 1951 under the Iron and Steel Act becoming part of the Iron and Steel Corporation of Great Britain.
- 6.2.14 The Cargo Fleet Iron Co. was established in 1866 as Swan, Coates and Co, building an ironworks at Cargo Fleet. The company was nationalised in 1951 becoming part of the Iron and Steel Corporation of Great Britain, although the Cargo Fleet company name survived (Grace's Guide (b), 2018)

- 6.2.15 Dorman, Long and Co of Middlesbrough was a major manufacturer and fabricator of steel components and structures. Dorman Long was founded in 1876, became a public company in 1889, and part of British Steel in 1967 (Grace's Guide (c) 2018).
- 6.2.16 In 1912, The Appleby-Frodingham Steel Co was formed by Frodingham Iron Co taking over the Appleby Iron Co. A British Industries Fair Advert noted that the company was part of The United Steel Companies (Grace's Guide (d) 2018).
- 6.2.17 The company names of these steel producers shows that all the steel work bearing their name was probably in place prior to nationalisation in 1951, or before 1967 with the formation of British Steel. Unfortunately, the long tradition of each of these company names predates the building of the depot, which was erected by 1920. However, it is worth noting that some steel bore the name 'British Steel' and can only have been put in place after 1967; these steels occurred in at the western end of Block H and were confined to the later adaptations of this shed.

Block C

- 6.2.18 The largest element of Block C comprises five open sheds orientated on an east to west axis (C1-C5a). From the early plan of the site in 1929 (Appendix B: Plate 6) this area was used as a forge, press shop, smithy, die shop, and iron store, however nothing remains within the building to indicate this. On the early mapping from the early part of the 20th century (Appendix B: Plate 4) Block C is seen in a more truncated form than the present day with its now eastern side extended. This later extension can be visualised internally at the eastern end of C3 where individual steel stanchions support part of the later extension (Washwood239: Appendix C).
- 6.2.19 The roof over C1-C5a is supported by a row of vertical stanchions which are reinforced to support the rainwater valleys, and horizontal-mounted I-sectioned steel beams run down the side of each shed. The steel stanchions are likely to represent part of the original works dating from the early part of the 20th century. The roof over each shed space is double pitched and contains lightweight steel trusses (three to each stanchion bay). The roof is covered by galvanised corrugated sheeting with a continuous skylight to each roof pitch and is modern in appearance.
- 6.2.20 The floor surface is constructed of cast concrete and contains entrenched railway tracks (Plate 3). Approximately halfway down the length of the shed there is a gap in the stanchions which has been further reinforced by a steel beam.
- 6.2.21 Separating C3 and C4 there is a full-height late 20th century breeze block wall, and at the south-west corner of Block C there is a full-height space C5b (Washwood044: Appendix C) with a roller

shutter door with windows above. These windows represent part of the original western gable end of Block C which is depicted on the early 20th century map (Appendix B: Plate 4).

- 6.2.22 At the eastern end of C4 and C5a there are two brick-built structures which appear to have been constructed as part of an early boiler house (C6a) (Washwood047: Appendix C) to an engine house (C6c) (Washwood058: Appendix C) with a basement level (C6d). The brick walls were constructed using common bonded bricks with three courses of stretchers to one course of headers. This former engine and boiler house is marked on the plans from 1929 and 1948 (Appendix B: Plates 6 and 9). Situated between these two structures there is the truncated remains of a factory chimney which is accessed via a low semi-circular arched opening in the south-west corner of C5a (Washwood049: Appendix C). The chimney stack can be seen extant on the aerial photograph of the site taken in 1930 (Appendix B: Plate 7). The opposing north wall of C6a contains blocked segmental arched window openings (Washwood048: Appendix C), and there is a large roller shutter door in the east gable. The roof structure over this space has been replaced with modern lightweight steel trusses which have a galvanised metal covering.



Plate 3: Showing the interior of Block C

- 6.2.23 C6c, is entered on the south side of Block C via a two-storey brick-built structure (C6b) (Washwood050: Appendix C), which internally, at ground floor level, contains the other side of the semi-circular arched opening noted in C5a (Washwood051: Appendix C). A modern first floor office has been inserted in the later part of the 20th century (Washwood052: Appendix C), and above this there is a large water tank which is early 20th century in date and once would have pressurised water for the boilers.

- 6.2.24 Internally, C6c has two levels at ground floor level there is a steel plate platform and walkway supported on brick piers and steel stanchions (Washwood062: Appendix C). To access the basement level below (C6d), there are two cast-iron stairwells surrounded by railings. The walls of the ground floor room have glazed white brick up to the level of a chequerboard pattern tiled dado (Washwood053: Appendix C). Stone capped brick pilasters in the north and south walls of C6c support an I-sectioned steel rail and overhead crane with a five ton lifting capacity, manufactured by Higginbottom and Mannock Ltd of Manchester (Plate 4). The crane above the former engine house is likely to be an original feature as the company Higginbottom and Mannock was founded in Manchester in 1878 and went into liquidation by 1925 (Grace’s Guide (e), 2018) The roof structure over the space is supported on lightweight steel trusses with wooden purlins supporting a match boarded and felted covering



Plate 4: Travelling crane over the former Engine House C6c

- 6.2.25 Protruding through the steel plate floor there are the tops of machine beds (Washwood054: Appendix C), which are best appreciated for their size and construction from the basement level (Washwood061: Appendix C). At this level, there are the remains of reinforced cast concrete engine beds, brick piers and steel stanchions reinforcing the walkways above, and in the south-east corner of the room there is a large cylinder head cast by the Brightside Foundry in Sheffield with a reducing drive mechanism (Washwood63: Appendix C). The engine beds are likely to be from the earliest phase of construction of the site. The cast-iron stairs tiling are also likely to be part of the original fittings of the engine house.

- 6.2.26 In filling the gap between the western gable ends of sheds C1 to C5a and Block D, there is a shed aligned north to south D10 (Washwood041: Appendix C). The roof is covered in galvanised steel sheeting with two skylights to each bay of lightweight metal trusses. This block is not shown on the mapping from the middle of the 20th century (Appendix B: Plate 8) and therefore part of the final phases of alteration to the complex. There are vertical steel stanchions set against the east and west walls with a high-level, horizontally mounted I-sectioned steel beam running from the southern end of the shed to where the east wall has been opened up into C1-C3 (Washwood037: Appendix C). The east wall of D10, was constructed using common bonded bricks and has early window openings. The west wall also contains a high level banding of darker coloured brick work which can be seen on some of the external elevations of the brick-built structures around the site. The detail on the mapping, which shows this area was once open, and the physical features clearly shows this part of the site represents the original eastern external gables of Block D.

Block D

- 6.2.27 Block D comprises nine open sheds aligned along an east to west axis. The rows of steel stanchions that support saw-tooth roof structure (Plate 5) each have a shouldered bracket towards the top of each stanchion. Scorch marks on these brackets indicate that horizontally-mounted beams seen in the other sheds have been removed. The space is lit from above by south-facing continuous skylights in the southern pitch of the saw-tooth roof. The plan of the site from 1929 shows that this area was used as a machine shop and by 1948 it is marked as 'old machine shop' (Appendix B: Plates 6 And 9), Little evidence was found within the building to indicate this function.



Plate 5: showing the steel stanchions and the saw-tooth roof structure of Block D

- 6.2.28 The southern wall of D9 contains regularly spaced large entrances each fitted with a roller shutter door; between the entrances there are eight bays of window openings each fitted with a steel multi-paned window frame dating from the early part of the 20th century. The brick south wall of D9 was constructed using common bonded brick with three courses of stretchers to one course of headers. The floor surface, as with the rest of the sheds, is constructed from cast concrete and there are embedded railway tracks running east to west in the northernmost shed (D1). There is, however, evidence of smaller gauge tracks in D7, D8 and D5 (Washwood075). Industrial narrow gauge railways were often used in large scale engineering works to transport raw materials, this type of miniature railway had its own engines and rolling stock evidence for similar gauge tracks can be seen in the railway sheds at Crewe which also date from the early 1920s. The mapping from the early part of the 20th century (Appendix B: Plate 4) shows a building occupying the same foot print as Block D, E1 and E2 and eastern half of Block F, and belongs to the original phase of construction. Although the vertical stanchion supporting the roof differ from those in C1 to C5b which is also an original building, it is likely that single stanchions used in D1-D9 would need to provide less support as the bay width are set closer together.

Block E

- 6.2.29 At the western end of Block D, Block E comprises two open sheds aligned north to south (Washwood076: Appendix C). The roof covering over this part of the building is entirely modern, however, this enclosed space appears as such on the mapping from the early part of the 20th century (Appendix B: Plate 4). The internal walls are open to the adjoining sheds and the

rainwater valley, which runs between E1 and E2, is supported by a central row of paired vertical I-sectioned steel stanchions. The stanchions have shouldered brackets supporting a horizontally mounted beam which runs the full length of the shed. Above this, at the northern end of E1 and E2, further steel work has been added to support the roof (Washwood077: Appendix C). The north and east walls are constructed of brick using common bonded brick with three courses of stretchers to one course of headers. As previously stated, these walls are open to the sheds beyond and this is done by supporting the upper part of the wall on brick piers.

- 6.2.30 The space is lit from above by a large continuous skylight to each roof pitch. The cast concrete floor has embedded railway tracks which run transversely across the shed; joining blocks D to the east with Block F to the west. The plan of the site from 1929 (Appendix B: Plate 6) shows that this area was used as a template shop and was connected by a bridge and a gantry to Block B to the south. This overhead gantry no longer exists but it can be seen on the aerial photographs of the site taken in 1930 (Appendix B: Plate 7).
- 6.2.31 Placed centrally in E2, there is a modern single-storey office block constructed from insulated fibreboard (Washwood078: Appendix C). At the southern end of E2 there is a small first-floor room (E3) which contains a taking-in door in the south gable and there is a projecting steel beam for a hoist (Washwood142: Appendix C) which appears to be a later addition to the space. It is highly likely that this room would have allowed access on to the gantry identified above, and seen on the early plan and aerial photograph.

Block F

- 6.2.32 Block F comprises 5 large open sheds which are aligned east to west (Washwood083: Appendix C). As with Block G, the western gables are stepped in plan so that each presents a staggered entry point for the railway lines at that end of the building. Each of the stepped gables contains either a single or a pair of large entry doors, all of which are fitted with roller shutters. The gable walls were constructed using common bonded bricks laid with three courses of stretchers to one course of headers. The early mapping of the site (Appendix B: Plate 4) indicates that the western end is of F1, F2, F3, F4 and F5 were one continuous elevation, roughly in line with the current Western end of G6. It is not until the middle of the 19th century, that the mapping (Appendix B; Plate 8) shows the current plan form of the buildings, however, no noticeable change in the steelwork or the external brickwork was noted to reflect this later extension of the buildings. Prior to this part of the site being extended, in the 1940s the process within this block is shown as a frame shop; presumably assembling wooden and steel frames of carriages and wagons. This function does not change when the building are extended.

- 6.2.33 Common to each western gable are three high-level window openings, each fitted with multi-paned metal frames. In addition to these windows at the end of each building, the sheds are also lit from above during the day by a continuous skylight in the northern pitch of the lightweight roof structure, and at night the sheds are lit by rows of overhead electric lamps.
- 6.2.34 As with Block G, the stepped western gable in Block F has meant that each of the sheds has a section of north-facing exterior brick wall. Each wall varies in length, but common to each are regularly-spaced internal capped brick pilasters separated by two window openings fitted with multi-paned metal frames which contemporary with the expansion of these buildings in the middle of the 20th century.
- 6.2.35 The cast concrete floor surface of the sheds retains embedded railway lines, and at the western end of F1 there are exposed inspection pits between the lines (Plate 6), that date from the final phase of expansion of the site in the latter part of the 20th century. Also in F1 there is a modern freestanding spray booth for railway coaches, that contains side and overhead heating elements as well as a large air extraction system (Washwood079 and 080: Appendix C). The survival of the modern paint spray booth in this part of the site is the only piece of equipment left within this block to indicate the maintenance and possible manufacture of railway rolling stock.
- 6.2.36 The remaining sheds within Block F present a large open space which is visually only broken by the rows of regularly-spaced paired steel stanchions supporting the rainwater valleys. The stanchions also support horizontally-mounted I-sectioned steel beams which run the full length of the sheds (Washwood088: Appendix C). Although the roof is supported on the same lightweight metal trusses seen throughout the rest of the sheds on site, the roof covering differs in that on the south-facing pitch it has softwood match boarding supported by regularly-spaced purlins. The apex of each of the eastern gable ends of the sheds (F1-F5) are constructed using wooden panelling and, central to each of these, there is an extract vent and fan (Washwood084: Appendix C). This roof covering can also be seen over the engine house and represent the earliest surviving phase of roof coverings on the site. This utilitarian wooden tongue and groove boarding is typical of industrial complexes constructed in the early to mid-20th century.



Plate 6: Inspection pit at the western end of F1

Block A

- 6.2.37 To the west of the gatehouse, Block A presents an imposing facade of brick-built east-facing gables, two of which at the northern end of the façade have been converted into office space (A7a) (Washwood227: Appendix C). Internally, these offices are entirely modern in appearance with lightweight stud partitions (Washwood191: Appendix C), however, the brick wall forming the western edge of these offices intrudes into the footprint of A1 and A2 and does appear to be an early 20th century feature (Washwood192: Appendix C). There are no offices marked on the plan from 1929 (Appendix B: Plate 6) although there is a blank space shown at the eastern end of Block A. The rest of the block forms a paint shop, body shop and A6 is marked on the early plan as a finishing shop. No evidence was noted in the current building of this function.
- 6.2.38 Block A consists of six brick-built sheds orientated on an east to west axis (Washwood177: Appendix C), The brick work to each of the elevations, including the gables, are laid using a common bond with three courses of stretchers to one course of headers. The early 20th century mapping (Appendix B: Plate 4) shows that Blocks A and B have changed little over the years and currently occupy the same footprint. Internally, the sheds making up Block A are paired, and each pair shares a full-length brick partition separating A1 and A2 from A3, and A3 and A4 and A4 from A5. It is assumed that A5 and A6 are also separated by a brick wall; however, due to the presence of asbestos in these areas no access was possible to confirm this. The regular spacing of these walls and the commonality of the brickwork with the external brick walls suggest that these are part of the original layout.

- 6.2.39 Each pair of sheds that make up Block A has a central row of paired vertical steel stanchions supporting a central rainwater valley. Once again the stanchions support a horizontally mounted steel beam which runs the full length of the shed, and on the opposing brick walls, these horizontal mounted beams are carried on stone capped brick pilasters.



Plate 7: Window openings at the western end of A6

- 6.2.40 The lightweight metal roof trusses support a corrugated galvanised roof covering and the space is lit from above by a continual skylight running along the full length of the north-facing pitch of the roof. The floor surface in A1 and in A2 contains an entrenched railway track but unlike the other sheds, the floor surface is constructed from brick and is probably original (Washwood179: Appendix C). In A2 there is also a small gauge track running diagonally across the south-west corner of the shed (Washwood176: Appendix C). Some collapse of the floor has taken place within this building possible into the tunnel marked on the early plan (Appendix B: Plate 6).
- 6.2.41 Externally, some early ground floor window openings with metal frames survive at the east end of A6 and A5 (Washwood231: Appendix C); above these, the high-level windows in the apex of the gable have been blocked (Plate 7). The south elevation of A6 was overgrown at the time of survey, however, it was possible to note the presence of blocked window openings along this elevation and the presence of external capped regularly-spaced brick pilasters (Washwood233: Appendix C). The external ground level on this side of the building has been raised to give vehicle access to the road on the south side of the site, and a stair has been cut into the raised

banking to allow access to what appears to be later office space in A6 (Washwood234: Appendix C).

Block B

- 6.2.42 To the south, Block A is joined to Block B via B6/A6, however, no internal access to this shed was possible to confirm this relationship due to the presence of asbestos. On the plan from 1948 (Appendix B: Plate 9) the small building between the two blocks is marked as a canteen. But originally this was part of the finishing shop.
- 6.2.43 Externally, the presence of air raid shelters on the south side of B6 was noted (Washwood223: Appendix C), but due to the overgrown nature of the site no access was possible, however, one photograph of the interior of these shelters can be seen on the urban exploration website (28 days later website), due to copyright restriction, and the because this photograph may have been obtained illegally it can't be reproduced here, however, it does show the interior of the shelter lined with corrugated iron sheeting. The shelters are clearly marked on the 1948 plan of the site (Appendix B: Plate 9). These were the only air raid shelters found on site.
- 6.2.44 Block B in plan mirrors Block A, and comprises six sheds orientated on an east to west axis with west-facing gables each having three entrances (Plate 8) The brick work to each of the elevations, including the gables, are laid using a common bond with three courses of stretchers to one course of headers. Above these, there are window openings with stone lintels which are stepped to match the pitch of the roof structure (Washwood156: Appendix C). These window openings match those seen in the external western gables end of Block C which have already been identified as early 20th century in date. On the plan from 1929 (Appendix B: Plate 6) Block B is shown as a sawmill, and as a space for the building and repair of wood wagons. This function has changed little by 1948 (Appendix B: Plate 9), however, on the later plan there is a basement noted which was not seen during the current survey.
- 6.2.45 Externally, the north-facing elevation of Block B has pairs of regularly-spaced window openings with a stone lintel which also appear to be part of the original early 20th century buildings. Partially blocking these window openings, are single-storey brick lean-to buildings (Washwood159: Appendix C) which appear on the plan dated from 1962 (Appendix B plate 10). The east gable end of Block B mirrors the west gable with its entrances and window openings (Washwood162: Appendix C); however, the entrenched rail tracks present on the west side of the building have been removed on the east side.



Plate 8: Western gable end of Block B

- 6.2.46 The external brickwork of Block B is the same as on Block A with a banding of darker coloured bricks which was also noted on Blocks C and D. This banding carries round onto the north-facing elevation of B6/A6 which is partially obscured by a single-storey brick lean-to structure (Washwood164: Appendix C). If the early 20th century mapping shows and that Blocks A and B represent the best surviving examples of original structures, then it can be assumed that this banding in the brickwork forms part of the original design.
- 6.2.47 Internally, Block B does not contain solid brick partitions as in Block A; instead the partitions between the sheds are constructed from modern galvanised sheeting (Washwood197: Appendix C). The roof structure is supported on lightweight metal trusses by rows of paired vertical I-sectioned steel stanchions, which are replicated across the site in Block H, G and F. As with the other sheds on site, the vertical stanchions in B1 to B6 all have a horizontally mounted steel beam running the full length building. The floor surface of the sheds are constructed from cast concrete with entrenched rail tracks joining the entrance doors in each of the gables in B1 and B2; transverse rails (running north to south) were also noted (Washwood196 and Washwood200: Appendix C). There was no evidence for a traverse mechanism, which is clearly marked between Blocks A and B on the early 20th century mapping (Appendix B: Plate 4) and the plan from 1929 (Appendix B: Plate 6), was found during the survey.

Block H

- 6.2.48 Block H comprises a linear range of buildings orientated on an east to west axis. Externally all these buildings have been re-clad with modern galvanised sheeting (Washwood124: Appendix

C). H1 at the eastern end of the range has full length aisle structure to the north and south. The plan from 1929 (Appendix B: Plates 6) show that this functioned as a timber drying shed but had changed by 1948 to a paint and packing shop.

- 6.2.49 On the north side of Block H there are large entrances in the aisle with modern roller shutter doors giving access to each of the internal transverse bays (Washwood124: Appendix C). On the early 20th century map of the site (Appendix B: Plate 4) Shed H1 is clearly marked as a single-bay width shed with side aisles and the western end of the central bay extends out into the yard. The building is now a simple rectilinear structure but still retains its original steel framework.
- 6.2.50 Internally H1 is lit from above by a skylight in each pitch of the roof which runs the full length of the shed (Plate 9). The aisles formed by the lean-to structures on the north and south of H1 are lit by window openings where there is no roller shutter door present. The cast concrete floor has no embedded railway lines, and the rows of vertical, paired I-sectioned steel stanchions supporting the roof have the horizontal mounted steel beam noted in the other sheds. Although the shed has an external covering that is entirely modern the internal steel frame survives, and still present within H1 is an overhead crane which runs along the horizontally mounted steel beam (Washwood130: Appendix C). Apart from the overhead crane noted in the former engine house C6c, this is the only surviving example in any of the remaining sheds that once would have been a common feature, evidenced by the presence of the horizontally-mounted steel beams noted throughout the site.



Plate 9: Interior of Shed H1

- 6.2.51 H2, attached to the western end of H1, does not have side aisles, and is divided across its width by two modern partitions. Behind the first of these partitions at the eastern end of the shed, a two-storey modern office block (H2c) has been inserted (Washwood212: Appendix C). At the western end of the shed, a tensioned fabric partition has been added separating H2b and H2a. The original paired vertical I-sectioned steel stanchions do not support the structure of the building as this is done by a modern steel frame. The old steel frame has been painted red and supports the horizontal rail of an overhead crane. The old steel work is braced on the south side, and cuts through the modern metal cladding (Washwood216: Appendix C).
- 6.2.52 Building HX stands detached from the rest of the linear range of buildings at this end of the site and does not appear on any of the historic mapping or building plans. The exterior is wholly modern in appearance with galvanised metal sheeting covering the roof, gables and walls. At the western end of the shed there are two large openings with modern roller shutter doors fitted. This is mirrored in the opposite gable and there are two small pedestrian doorways in the north side of the building (Washwood122: Appendix C).
- 6.2.53 Internally, building HX is entirely modern in appearance with single vertical I-sectioned steel stanchions supporting the modern cladding. The floor is constructed of sectional cast concrete and there are the remnants at the south-east corner of the building of an earlier steel stanchion supporting the horizontally mounted steel beam seen in the other sheds (Washwood210: Appendix C).

Other Structures (Figure 4)

- 6.2.54 At the south-east corner of the site there is an entrance way from the main road into the complex. To the north of this entrance, there is a single-storey brick-built gatehouse with a rounded south-west corner (Washwood235: Appendix C). The building has a double pitched slate covered roof surrounded by brick parapet with a cast concrete external cornice below this building appears on the mapping from the early part of the 20th century (Appendix B: Plate 4). The brick outer walls are constructed using common bonded bricks with three courses of stretchers to one course of headers. The curved south west corner of the building is constructed using a rat-trap bonded brick. Opposing the gatehouse, there is a flat-roofed single-storey open shed with steel bi-folding doors (Washwood236: Appendix C). These two buildings appear on the plan from 1929 (Appendix B: Plate 6) which shows the gatehouse as a time office and the flat roofed building as garages.
- 6.2.55 Another structure noted during the walkover survey of the site was a small loco shed situated at the south-west end of the site (Plate 10), with a door in both gables and large blocked windows to the sides. This building appears on the mapping from the early part of the 20th century (Appendix B: Plate 4) and was probably used to store a shunting engine that moved goods around the site. The brick walls are constructed using common bonded bricks with three courses of stretchers to one course of headers.
- 6.2.56 At the south-west corner of the site there was a small brick electricity generating station which was entirely modern in appearance.



Plate 10: Loco shed at the north-west end of the site

6.3 Site Setting

- 6.3.1 This sub-section provides a record of the setting of the Washwood Heath works at the time of recording in line with Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037). It should be read with reference to Plates 11 to 19 contained herein which provide representative views of and from the site and with reference to Figure 6 which shows the locations from which these plates were taken. The site occupies an area of 120,000sqm, and is approximately 1 mile to the north east of the centre of Birmingham, on the south side of the main railway line to Derby. This large former 20th century wagon and coach works comprise a number of large single-storey brick-built linear sheds aligned east to west which are surrounded by streets lined with late 19th and 20th century housing. The plan form of the sheds making up the site has changed little since it was extended in the middle of the 20th century. A locally-listed building, Warren Road- Metro Cammel Ltd offices and caretakers house, was associated with the works. The building has views from its north elevation across the works, however its main elevation was to Warren Road and is south facing and it may have acted as a gateway between the residential area to the south and industrial area adjacent to the railway.
- 6.3.2 The industrial character of the Washwood Heath area during the mid part of the 20th century is best summed up by an aerial photograph taken in 1930 when the works was at peak production (Appendix B: Plate 7). The photograph shows the Carriage Works with the former Wolseley Motor Works in the background and fields beyond. Undoubtedly, the noise and smell generated from these major manufacturing hubs would have formed a significant element in contributing the industrial character of the area. Since the closure of the former Carriage Works in 2004 and the closure and demolition of the former Wolseley Motor Factory (LDV Truck and Van) in 2009, the environmental impacts of these heavy manufacturing hubs have all but gone. Only light traffic now enters the works, through the main entrance gate on the north side (Plate 12) and heavy industrial character has thus been altered.
- 6.3.3 The aerial photograph from the 1930 (Appendix B: Plate 7), shows that the majority of the buildings on site were of a single storey construction and only the factory chimney (now demolished) would have been visible from a distance. This suggests that works would not have been visually dominant from the surrounding townscape in the past, but that their presence would have been marked by the chimney and likely by noise and traffic as noted in the paragraph above. Today the works are still low rise, and increasingly isolated from public view; hidden behind fences, housing, mature trees and hedge rows. In the later part of the 20th century a dual carriageway (A47) was constructed to the north of the site and new light industrial units introduced in to the part of the space once occupied by the former Washwood

railway siding. A large number of houses were constructed during the latter part of the 20th century expanding the city limit of Birmingham to the east. This has changed the character of the setting of the asset which was originally dominated by heavy industry and its relationship with the adjacent railway.

- 6.3.4 On the north side of the site, the former Washwood railway sidings shown on an early 20th century map (Appendix B: Plate 2) have now been partly infilled by modern light industrial units making an understanding and appreciation of the asset's relationship with the railway more difficult. Views of the former wagon and coach works from this side of the complex are limited to an unnamed access road off the A47 over the main Birmingham to Derby railway line (Plate 11). Further along this unnamed road, there is the main gateway leading onto the site. Views of the complex from the current entrance is limited by mature trees and by vegetation growth (Plate 12).



Plate 11: View from the bridge crossing the railway line to the north of the site

- 6.3.5 Houses along Warren Road obscure any views of the former works from the south (Plate 13). There is, however, a small road to the east of Leigh Primary School to another entrance into the site that does afford a limited view of the site (Plate 14). Beyond this gateway there is an elevated tarmac road running between the backs of the terraced houses and the works. From this elevated roadway there are good views over the southern side the site, however, this is

not publicly assessable, but gives some indication of the views available from the backs of the houses along Warren Road (Plate 15).



Plate 12: View showing the entrance gate to the site on the north side of the complex



Plate 13: View looking down Warren Road showing the 19th and 20th century housing



Plate 14: View looking down Leigh Road towards the entrance at the southern side of the site



Plate 15: View from the elevated road at the southern end of the site

- 6.3.6 Views of the site from the east, along Common Lane, are obscured by trees and metal fencing. There is access off Common Lane to the gate house at the south east corner of the site and some views of the eastern gables of Block are possible (Plate 16). On the south side of the site the main impact of the closure would have been felt by the local community which would have once been a busy access and egress point to the site.



Plate 16: Gate house off Common Lane

- 6.3.7 The western approach to the works is via the railway sidings off the main line with no public accessibility, and views of the site are possible on this approach. On the east side of the site the demolition of the former Wolseley Motor Works (Appendix B: Plate 7) has now left a large area of undeveloped land to the east of the works, and no clear view of the site is possible from this side (Plate 17). The demolition of this factory and the closure of the former carriage work will have inevitably had to an impact on the local workforce, and on the heavy industrial character of the area. These impacts are symptomatic of wider changes being made to former large manufacturing hubs across the county, that once employed vast numbers of workers. The steady decline in heavy industry since the later part of the 20th century, will have led to the loss of skills but some of these will have evolved and been absorbed in smaller industrial units like those seen on the north of the site.



Plate 17: Large area of former industrial land to the east of the works (Site of the former Wolseley Motor Works)

7 Discussion

- 7.1.1 Blocks G, F, D, C, B, A and H1 are in part original buildings with outer walls and a steel superstructure dating from the early part of the 20th century. D10 and G4 are infill structures which were probably built shortly after the Second World War. The documentary evidence provided shows the function of each of the internal spaces on site in 1929 and 1948 (Plates 6 and 9: Appendix B), and it does appear that the heavier elements of the process; shaping the iron for the carriage frames and casting the wheel was being undertaken at the northern end of the site, while at the southern end of the site processes such as timber repairs and finishing were more prevalent. Suggesting a process flow of the carriages through the works from north to south. A traverser mechanism is also shown on the plans at the southern end of the site showing how the carriages and wagons would have been moved across the site.
- 7.1.2 As a group of buildings there is good survival of what was once a busy manufacturing hub, and subsequent usage of the buildings as storage has meant that the majority of the external walls of the sheds have remained relatively unaltered throughout the 20th century. However, where the sheds have been modernised, particularly Building H, modern cladding has impacted on the historic character of individual buildings.
- 7.1.3 In Block B the original brick floor of the sheds has survived, and the presence of an engine house in C6c shows where the site was powered from, and a historic plan of the site shows a tunnel (Appendix B: Plate 6), of unknown function, running diagonally across the site to Building B5/6,

that in 1929 was being used as a saw mill. The collapse floor surface in Building does show that this tunnel may still be present.

- 7.1.4 Because the buildings have been stripped of their machinery there is little physical evidence remaining of the individual processes which took place within these buildings. The spray booth, in F1, the train/carriage wash in G6, and the inspection pits although later interventions are now the only feature remaining which show a direct link to the maintenance/manufacture of the railway rolling stock.
- 7.1.5 As part of the Nation Heritage Plan NHPP 4B3: Transport and Communication, a statement of significance was commissioned by Historic England in 2014 for all types of railway buildings and associated structures. Although coach and wagon works are not identified as a type of building engine sheds are, and for these buildings its notes that *'between 1850 and 1900 the gradually coalescing railway companies slowly evolved various standardised designs of straight shed, classically with panelled exterior brickwork and longitudinal or transverse ridge-and-furrow (sawtooth) roofs'* (Kinchin-Smith, 2014). The sheds at Washwood were constructed around c1910 and do conform to this type generalised structural type but and with no panelled brick walls; instead, the majority of the external walls are constructed from common bonded brick with decorative darker brick banding.
- 7.1.6 The horizontally mounted I-sectioned steel beams in the majority of the sheds would have been used for the positioning of overhead travelling cranes, an original example of which still remains in the engine house. It is unclear from the evidence on site whether all of the sheds had an overhead crane however it is likely given the large number that were present in the sheds at the neighbouring Saltley works.
- 7.1.7 A casting in the basement of the engine house bore the name of the Brightside Foundry and Engineering Co. Ltd, Sheffield and London. This was identified as a cylinder head with transverse gearing and it is highly likely that this was part of the original engine mechanism which powered the site. Grace's Industrial Guide identifies that the Brightside Foundry and Engineering Co was founded in 1899; however, no date is given to when the company stopped using that name.

8 Conclusions and Significance

- 8.1.1 The former Midland Works offers little in terms of aesthetic value, being purely utilitarian in design, and distant views of the works are limited by external boundaries. Its massing within the landscape is limited by the single-storey nature of its buildings resulting in a minimal impact

on the skyline of the surrounding area. The visual impact of the complex on the wider landscape can only be appreciated from the air, where its physical relationship to the railway lines and the distinctive stepped gables at the western end of the buildings shows how the plan of the works has adapted over time to perform a specific function and expanded to fit the plot of land.

- 8.1.2 A desktop study of the area centred on the works, done by Cotswold Archaeology in 2005 concluded that: There is currently no evidence in the vicinity to suggest that archaeological remains predating the post-medieval period are present (Stoten, 2005). Therefore, it is unlikely, due to the extensive and intrusive nature of the 20th century works, that any evidential value of earlier human activity within the confines of the site remains.
- 8.1.3 The building recording has identified an engine house, the remnants of a factory chimney stack and a boiler house. Although of passing interest these elements are important in the understanding of how power may have been generated on site, but the lack of external or internal bearing blocks does not show how that power was distributed. Intriguingly, there is a tunnel marked on a plan of the site dated 1929 (Appendix B: Plate 6), that is an undoubted part of the original works and may answer the question of how power transfer took place on site, however this cannot be fully assessed in terms of its significance without further investigations.
- 8.1.4 The historic value of the site, as a group of undesignated heritage asset lies in their association with, and the contributions to the development of railway infrastructure during the 20th century. The buildings form part of a strong railway tradition in Birmingham which saw rapid growth towards the end of the 19th century and continued well into the 20th century.
- 8.1.5 The decline in heavy industry and growing urbanisation of the area has now left the buildings isolated in a post-industrial landscape, and steady incremental changes made to the works over time, such as addition of modern cladding, has reduced its impact as a symbol of Birmingham’s industrial past. Its lack of visibility from the public realm, coupled with its closure as a major engineering works in 2004 will have impacted heavily on its value to the local community, and this is likely to diminished further over time.
- 8.1.6 The following table concludes how the historic building recording has contributed to the specific HERDS Knowledge Creation objectives, as outlined in Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015):

Table 3: Contribution to Specific Objectives

Specific Objective	Contribution
--------------------	--------------

<p>KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.</p>	<p>The building recording has contributed to characterising the site and allowing comparisons to be made with the siting of other carriage works in the area. The building recording has contributed to a better understanding of the role and impact of the Midland Works in the development of the townscape and layout of the Washwood Heath settlement area.</p>
<p>KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?</p>	<p>Limited documentary evidence has been found to assess the full impact of the two World Wars on the site, although it is known that during the First World War the works were used as a shell factory. Documentary evidence has been uncovered showing different types of shell were being produced within the factory during the First World War, but no physical adaptation was identified within the current standing buildings. Air raid shelters to the south side of B6 are now the only physical remains evidence of how the works were adapted during the wars.</p>
<p>KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives.</p>	<p>As these buildings were constructed in the early part of the 20th century and manufacturing continued into the early 1960s, it is likely that people who worked here are still alive and a community engagement project would be valuable to compile an oral history of the site to fill the gaps in our understanding of process flow through the site. Mitigation should be considered during or after demolition of the buildings to record the remains of the tunnel system noted on the early plan of the site, to investigate how power was distributed around the site and to record the survival of any basements levels under B5-B6. This work could be done under supervision, as a community engagement programme of work.</p>
<p>KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we recognise changing public perceptions of railway infrastructure and associated buildings over time?</p>	<p>The building recording has provided an opportunity to assess the sites character and has recorded its significance. This recording has contributed to a better understanding of the railway infrastructure by focussing on a purpose-built site for the manufacture of carriages.</p>

9 Evaluation of Methodology

- 9.1.1 Restrictions to the Historic Building Recording Survey included no access to the exteriors of some parts of the buildings (shown on Figure 4: Appendix A) as well as limited archival evidence; not all archival sources listed within the LSWSI produced any documentary evidence of the Site. Despite this, it has been possible to fully characterise the buildings, produce an adequate

descriptive and photographic record, as well as contributing to a better understanding of the railway infrastructure.

- 9.1.2 There is a high confidence rating that the scale, scope and methodology were appropriate to record the historic fabric of the buildings present on the site and answer the KC's as laid out within the LSWSI.

10 Recommendations

- 10.1.1 There is very little of architectural merit or features of historic significance left on the site to salvage and only the large casting in the former engine house and the overhead crane may have some possible intrinsic value to individuals or groups interested in industrial and railway artefacts, and ideally provisions should be made to contact interested groups who may wish to salvage these assets prior to demolition. Consideration should be given to the possibility of displaying these features in any future development of the site.
- 10.1.2 As these buildings stand there is little to recommend preservation. The significance of the site lays in its survival as a group of buildings associated with a long tradition of manufacturing in the region. This significance, initially impacted closure of the works, has been further impacted by subsequent alterations and the breakup of the site into individual units. Removal of the heavy machinery have also impacted on our greater understanding of the site. In the context of the proposed work there are no feasible options for the conservation, repair or management of the buildings and their setting.
- 10.1.3 It is understood that a Community Engagement Plan for Washwood currently under preparation (document 1EW04-LMJ-EV-PLN-NS03_NL08-029001). As the buildings at Washwood were constructed in the early part of the 20th century and manufacturing continued into the early 1960s, it is likely that people who worked here are still alive and living in the area. The Community Engagement Plan should consider the compilation of an oral history of the site to fill the gaps in our understanding of process flow through the site. This could also provide a more detailed understanding as to the construction and use of the tunnel system and could also consider how the site was experienced in the local townscape by local people. Beyond the gathering of oral histories, some mitigation should be considered to archaeologically record the remains of the tunnel system noted on the early plan of the site. This would allow for understanding of how power was transmitted around the site, and would record the survival of any basement levels under B5-B6. This work could be done under supervision, as part of the Community Engagement Plan, if appropriate.

11 Archive Deposition

- 11.1.1 The archive, consisting of a digital and physical archive of records, drawing and photographs, will be collated in line with the London Archaeological Archive and Research Centre (LAARC), Museum of London, Standards for the Deposition of Archaeological Archives.¹ HS2 Ltd will assure the delivery of the archive.
- 11.1.2 The archive will be prepared in accordance with UKIC guidelines for the preparation of excavation archives for long-term storage² and the Archaeological Archives Forum.³

12 Acknowledgements

- 12.1.1 Connect Archaeology wishes to acknowledge the help of all of the principal contractors on site, particularly Murphy's for their help in gaining entry into the building and the representatives from LM.

13 References

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¹ <http://www.museumoflondon.org.uk/collections-research/laarc/standards-deposition>

² United Kingdom Institute for Conservation 1990, Guidance for Archaeological Conservation Practice.

³ Brown Duncan H & AAF 2011, *Archaeological Archives: a guide to best practice in creation, completion, transfer and collection*.

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13.2 Cartographic

Ordnance Survey mapping of 1886 Warwickshire. Sheet VII.14.

Ordnance Survey mapping of 1886 Warwickshire. Sheet XIV.2.

Ordnance Survey mapping of 1917 Warwickshire. Sheet VII.14.

Ordnance Survey mapping of 1817 Warwickshire. Sheet XIV.2.

Ordnance Survey mapping of 1925 Warwickshire. Sheet VII.14.

Ordnance Survey mapping of 1825 Warwickshire. Sheet XIV.2.

Ordnance Survey mapping of 1920 Warwickshire. Sheet LXIX.SW14.

Ordnance Survey mapping of 1920 Warwickshire. Sheet XIV.NW.

Ordnance Survey mapping of 1937 Warwickshire. Sheet VII.14.

Ordnance Survey mapping of 1837 Warwickshire. Sheet XIV.2.

Document no.: 1EW04-LMJ-EV-REP-NS03_NLo8-029001

Revision: Co2

14 Oasis Form

OASIS ID: hs2conne2-321614

Project details

Project name	HS2 WP29a Washwood Heath Depot Historic Building Recording Survey
Short description of the project	A historic building recording was carried out at the former Midland Railway Carriage and Wagon Works at Washwood Heath. The on-site recording was undertaken between the 22nd May 2018 and the 25th May 2018. The building recording addressed eight ranges of buildings dating to the early 20th century which form part of an associated group, on a site immediately north of Warren Road and on the southern side of the former sidings of the current railway. Within the complex were located an engine house, boiler room and the remains of a factory chimney stack. The historic building recording was required in order to create an historical record of the site prior to commencement of its demolition. The setting of the buildings was also recorded to understand changes over time and the contribution made by setting to the assets significance.
Project dates	Start: 22-05-2018 End: 25-05-2018
Previous/future work	No / No
Type of project	Building & Setting Recording
Site status	None
Current Land use	Industry and Commerce 1 - Industrial
Monument type	INDUSTRIAL Modern
Significant Finds	NONE None
Methods & techniques	"Photographic Survey", "Survey/Recording Of Fabric/Structure"
Prompt	Required by HS2

Project location

Country	England
Site location	WEST MIDLANDS BIRMINGHAM BIRMINGHAM HS2 WP029 Washwood Heath Depot Historic Building Recording
Postcode	B8 2YH
Study area	0 Square metres

Document no.: 1EW04-LMJ-EV-REP-NS03_NLo8-029001

Revision: Co2

Site coordinates SP 10436 89060 52.498976925142 -1.846253785091 52 29 56 N 001 50 46
W Point

Project creators

Name of Organisation	Connect Archaeology
Project brief originator	LM-JV
Project design originator	Connect Archaeology / LM-JV
Project director/manager	Melissa Melikian
Project supervisor	Paul Gwilliam

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Unknown
Digital Contents	"none"
Digital Media available	"Images raster / digital photography"
Paper Archive recipient	Unknow
Paper Contents	"none"
Paper Media available	"Diary", "Drawing", "Notebook - Excavation", ' Research', ' General Notes', "Photograph", "Plan", "Report", "Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	HS2 WP029 - Historic Environment Works - Washwood Heath Depot - Enabling Works North Contract Final Report for Historic Building Recording Survey
Author(s)/Editor(s)	Gwilliam, P, Ridsdale, M and Kirby, M
Date	2018
Issuer or publisher	LM-JV



Document no.: 1EW04-LMJ-EV-REP-NS03_NLo8-029001

Revision: C02

Place of issue or
publication LM-JV

Entered by Nuala C. Woodley (nuala.woodley@aocarchaeology.com)

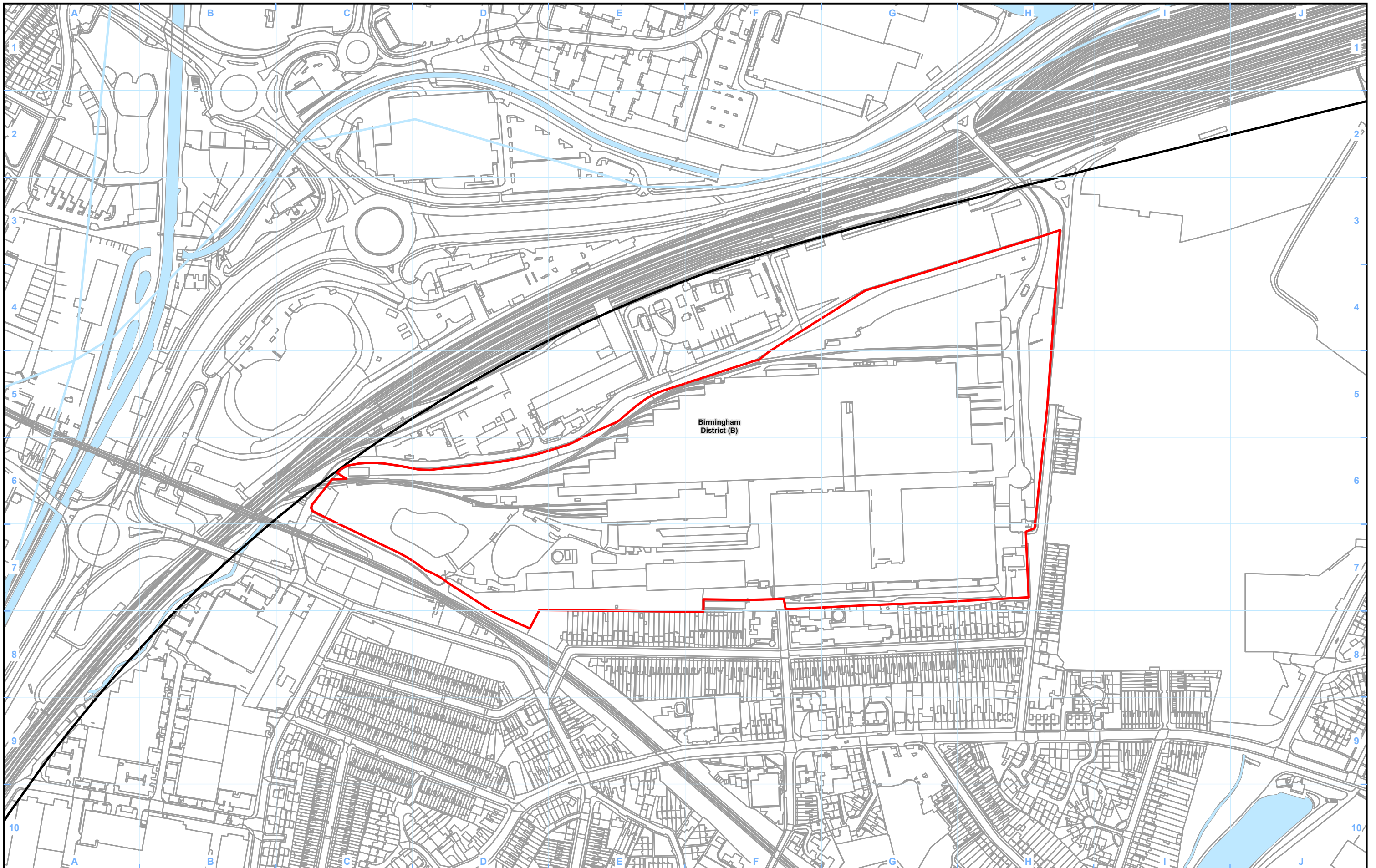
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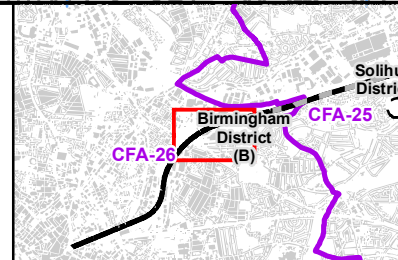
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Revision: C02

Appendix A: Figures



- Legend**
- Route in tunnel
 - Route on surface
 - Site Extent
 - Study Area
 - Community forum boundary
 - District/Borough boundary
 - Watercourse
 - Water Body



Map Number **Appendix A - Figure 1**

Map Name
**Washwood Heath
Location Plan**

Community Forum Area CFA26
Washwood Heath to Curzon Street

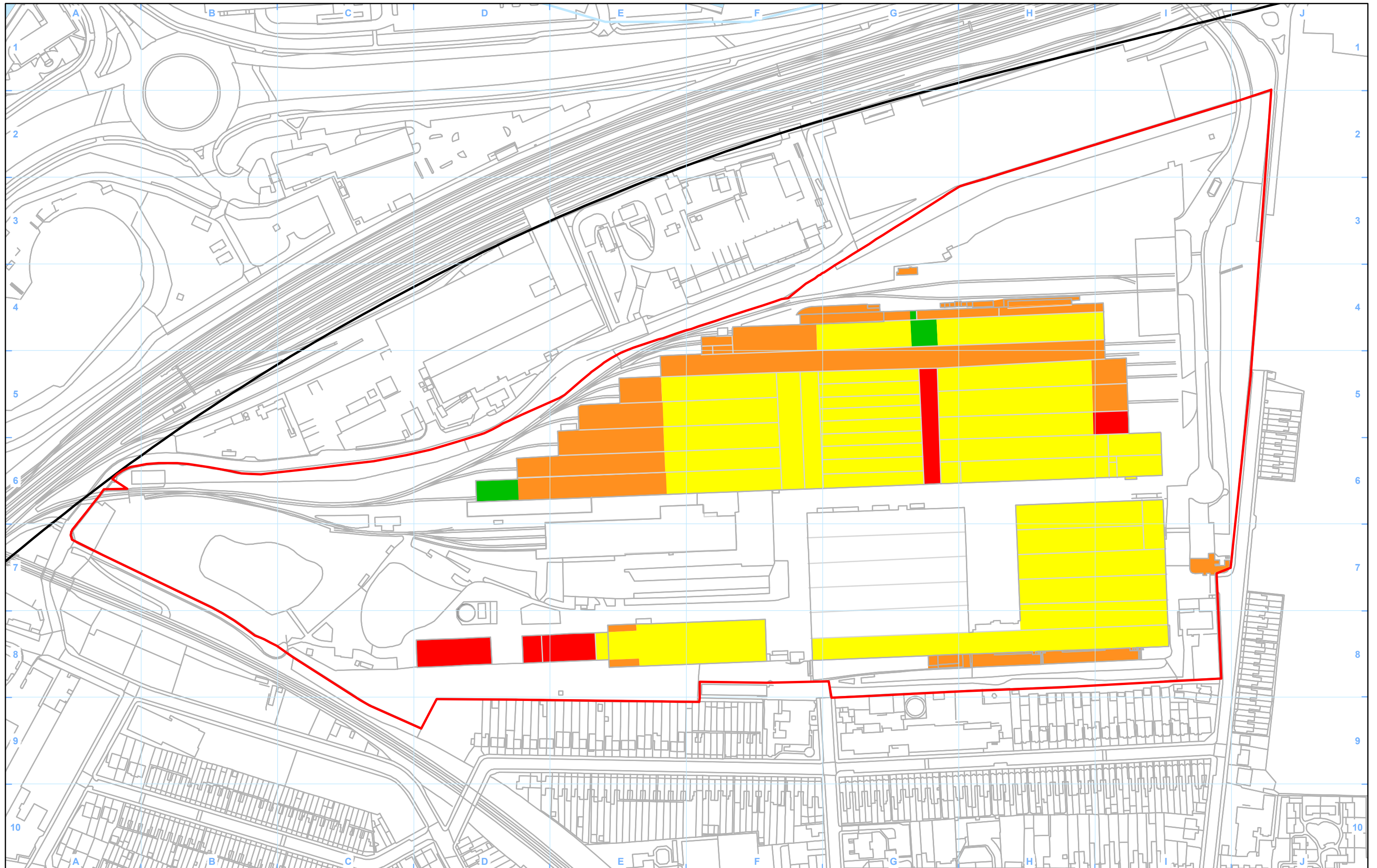
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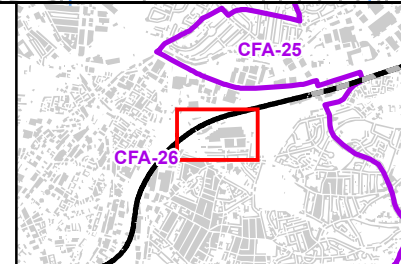
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Legend

- Route in tunnel
- Route on surface
- Site Extent
- Community forum boundary
- District/Borough boundary
- Watercourse
- 1945
- 1920
- 1960
- Mid to Late 20th Century



Map Number **Appendix A - Figure 2**

Map Name
**Washwood Heath
Phase Plan**

Community Forum Area CFA26
Washwood Heath to Curzon Street

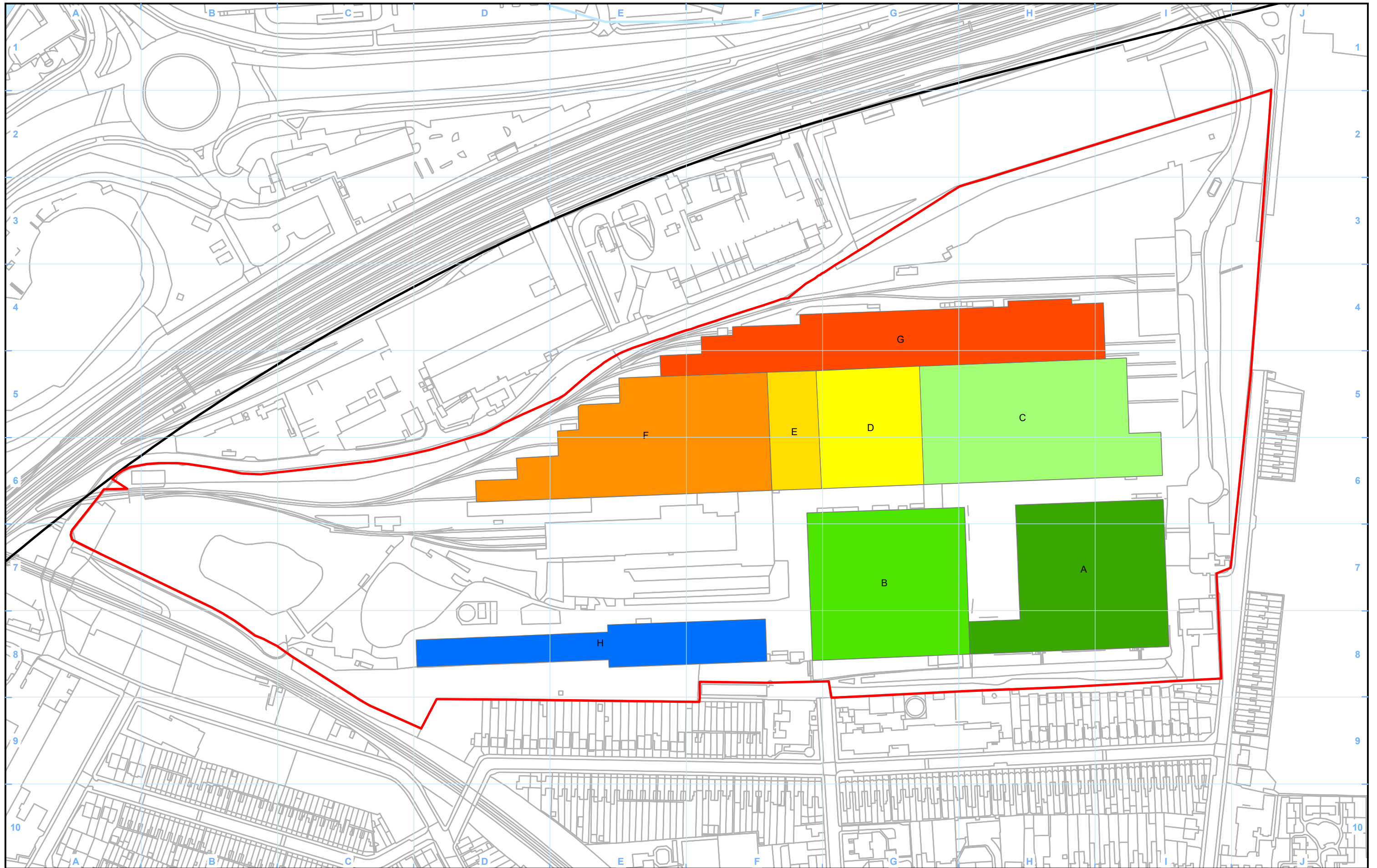
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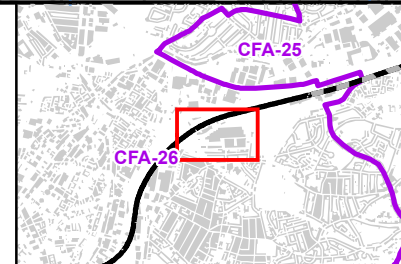
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Doc Number: 1EW04-LMJ-EV-REP-NS03_NL08-029001 Date: 13/12/18



Legend

— Route in tunnel	— Community forum boundary	Buildings to be surveyed	■ E
— Route on surface	— District/Borough boundary	■ A	■ F
▭ Site Extent	— Watercourse	■ B	■ G
▭ Study Area	— Water Body	■ C	■ H
		■ D	



Map Number **Appendix A - Figure 3**

Map Name
Washwood Heath
Location of buildings to be recorded (A-H)

Community Forum Area CFA26
 Washwood Heath to Curzon Street

hs2

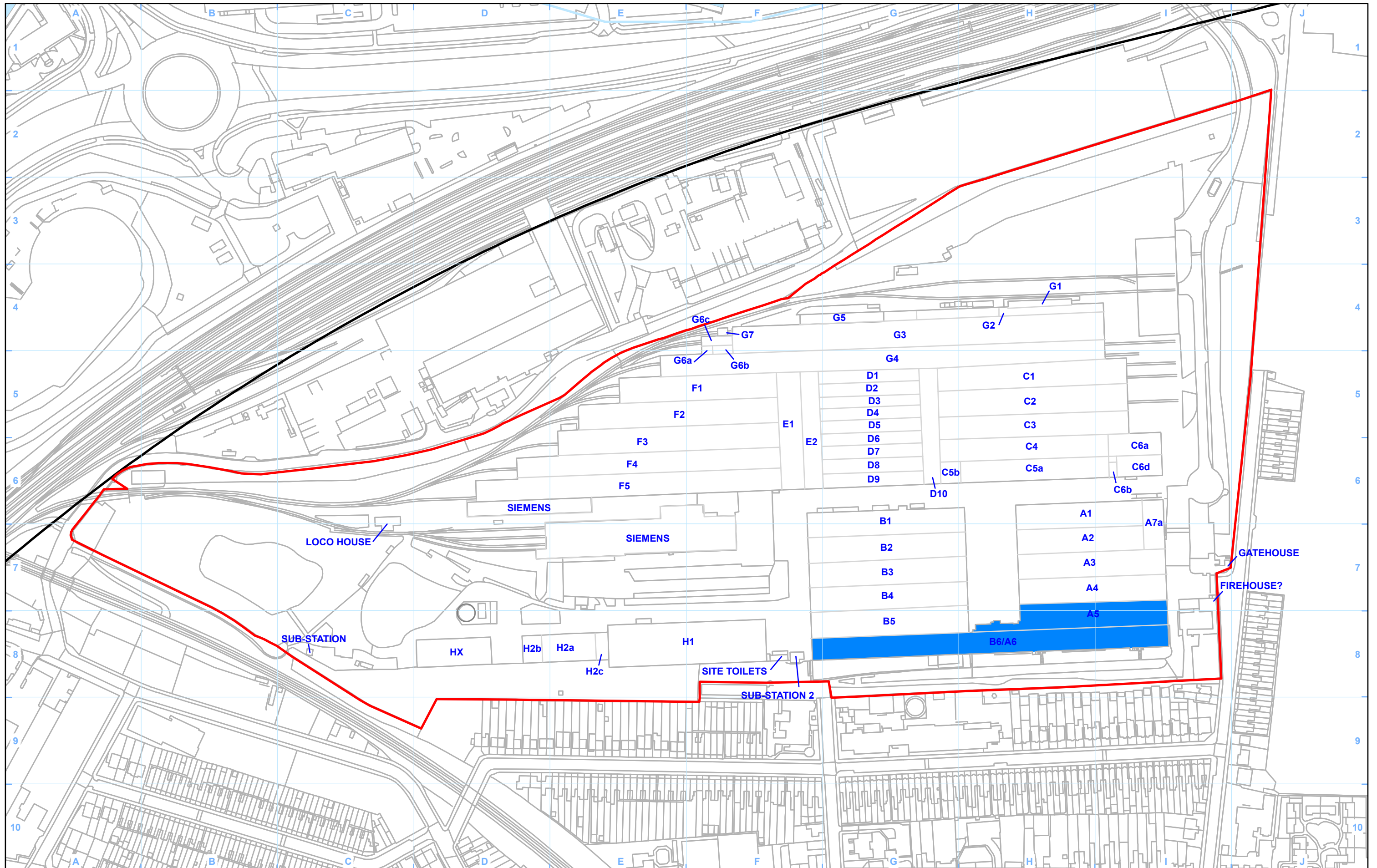
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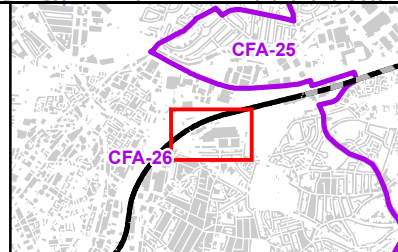
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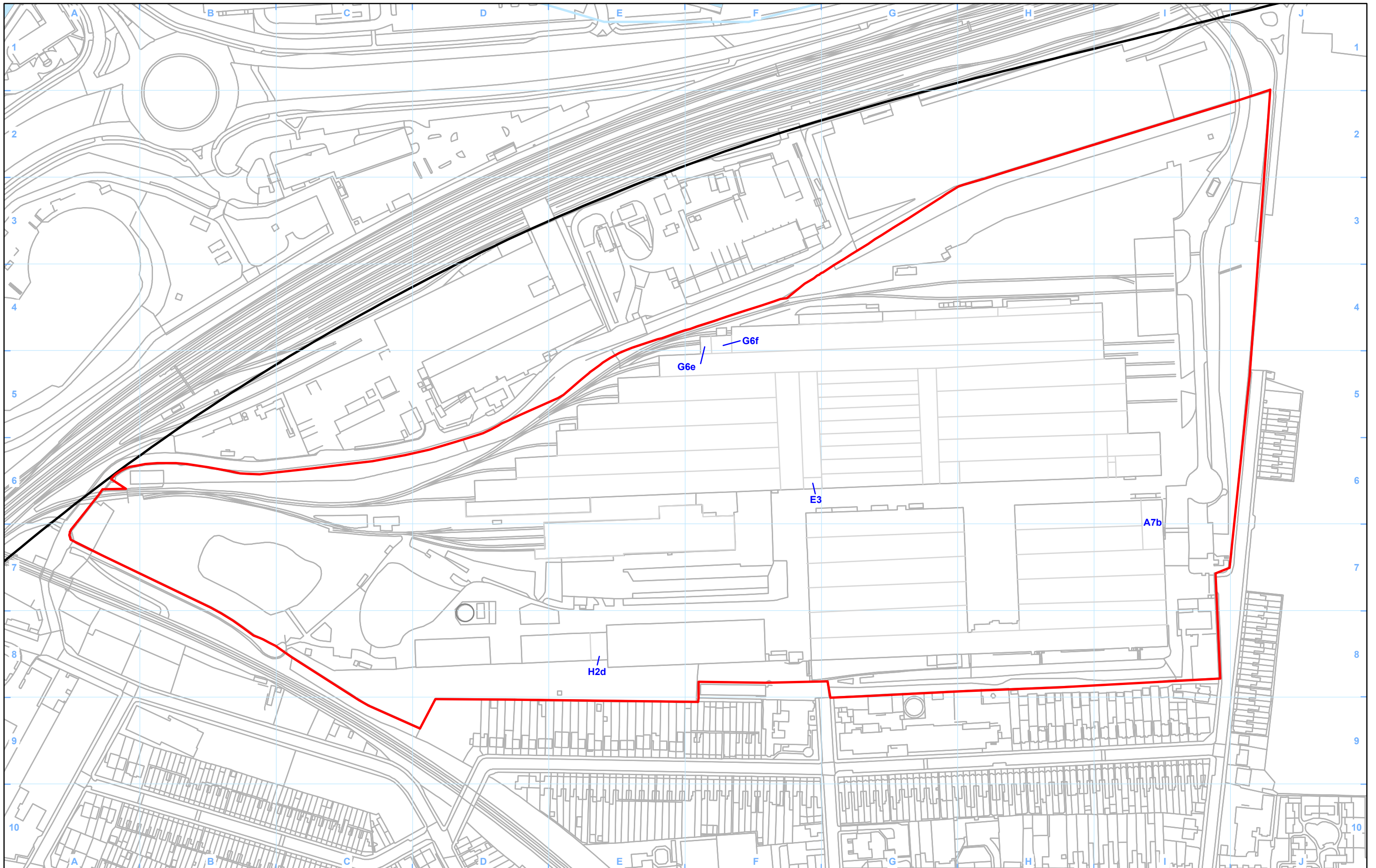
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- Route on surface
- District/Borough boundary
- Site Extent
- Area not surveyed due to the presence of asbestos
- Community forum boundary
- Watercourse



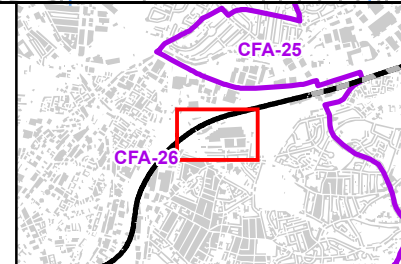
Map Number: Appendix A - Figure 4
 Map Name: Washwood Heath Building Locations, Ground Plan
 Community Forum Area CFA26
 Washwood Heath to Curzon Street

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- Legend**
- Route in tunnel
 - Route on surface
 - Site Extent
 - Community forum boundary
 - District/Borough boundary
 - Watercourse



Map Number **Appendix A - Figure 5**

Map Name
**Washwood Heath
 Building Locations, First Floor Plan**

Community Forum Area CFA26
 Washwood Heath to Curzon Street

hs2

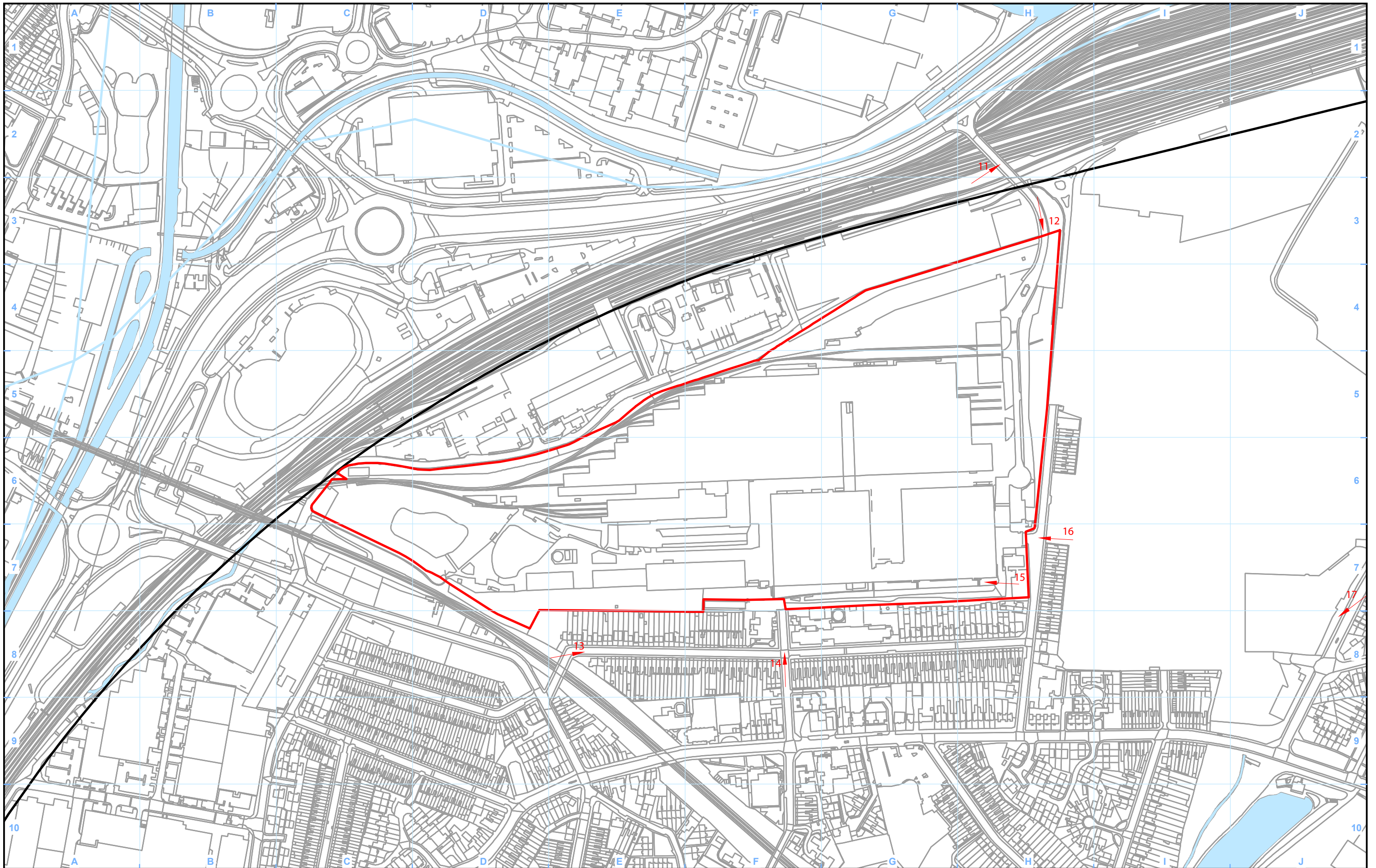
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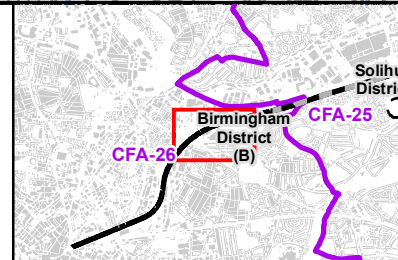
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Doc Number: **1EW04-LMJ-EV-REP-NS03_NL08-029001** Date: **13/12/18**



- Legend**
- Route in tunnel
 - Route on surface
 - Site Extent
 - Study Area
 - Community forum boundary
 - District/Borough boundary
 - Watercourse
 - Water Body
 - Photographic location



Map Number **Appendix A - Figure 6**

Map Name **Washwood Heath Plate Locations Plates 11-17**

Community Forum Area CFA26
Washwood Heath to Curzon Street

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Appendix B: Plates

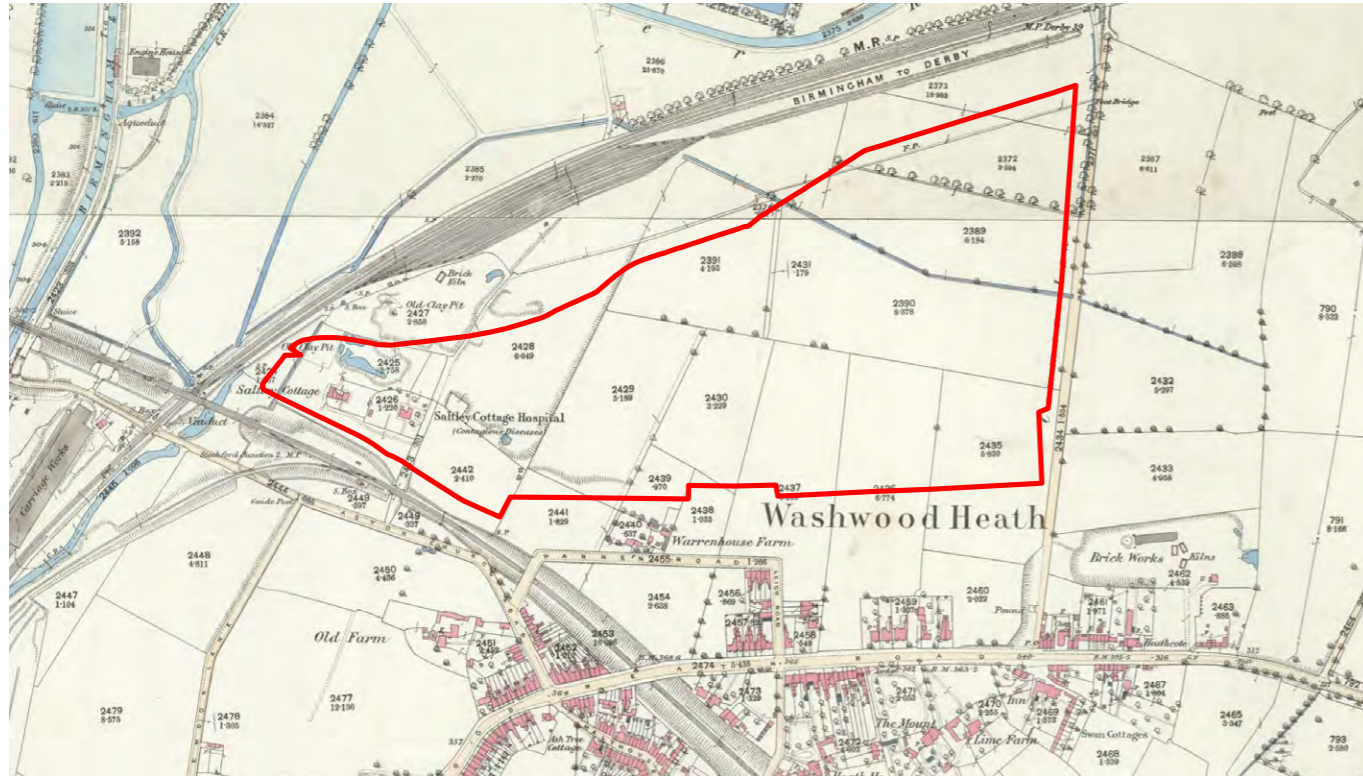


Plate 1: Ordnance Survey mapping of 1886 published 1895
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 Southampton, Ordnance Survey.

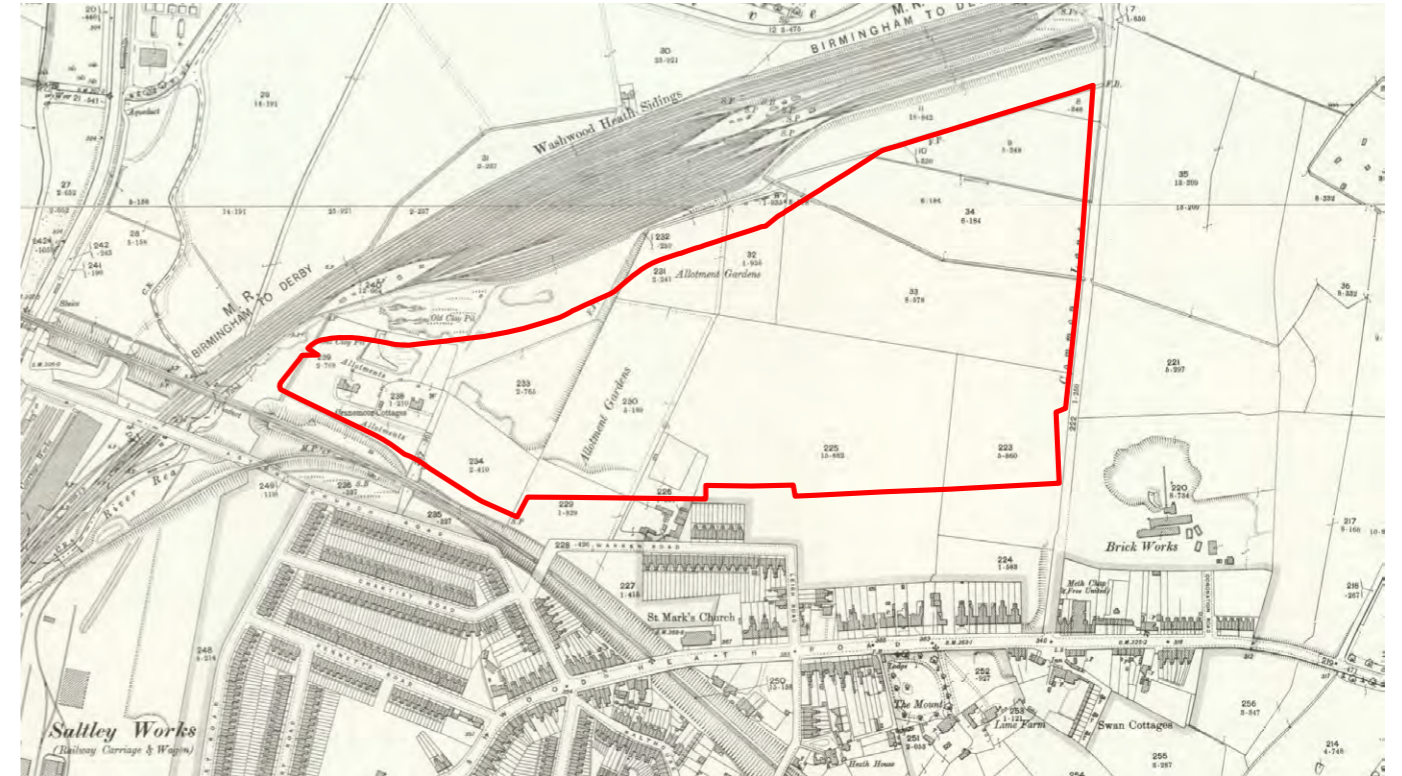


Plate 2: Ordnance Survey mapping of 1904 and 1905, revised in 1902
 Ordnance Survey Second Edition 1904 and 1905. Warwickshire Sheets VIII.14 and XIV.2. 1:25 inch.
 Southampton, Ordnance Survey.

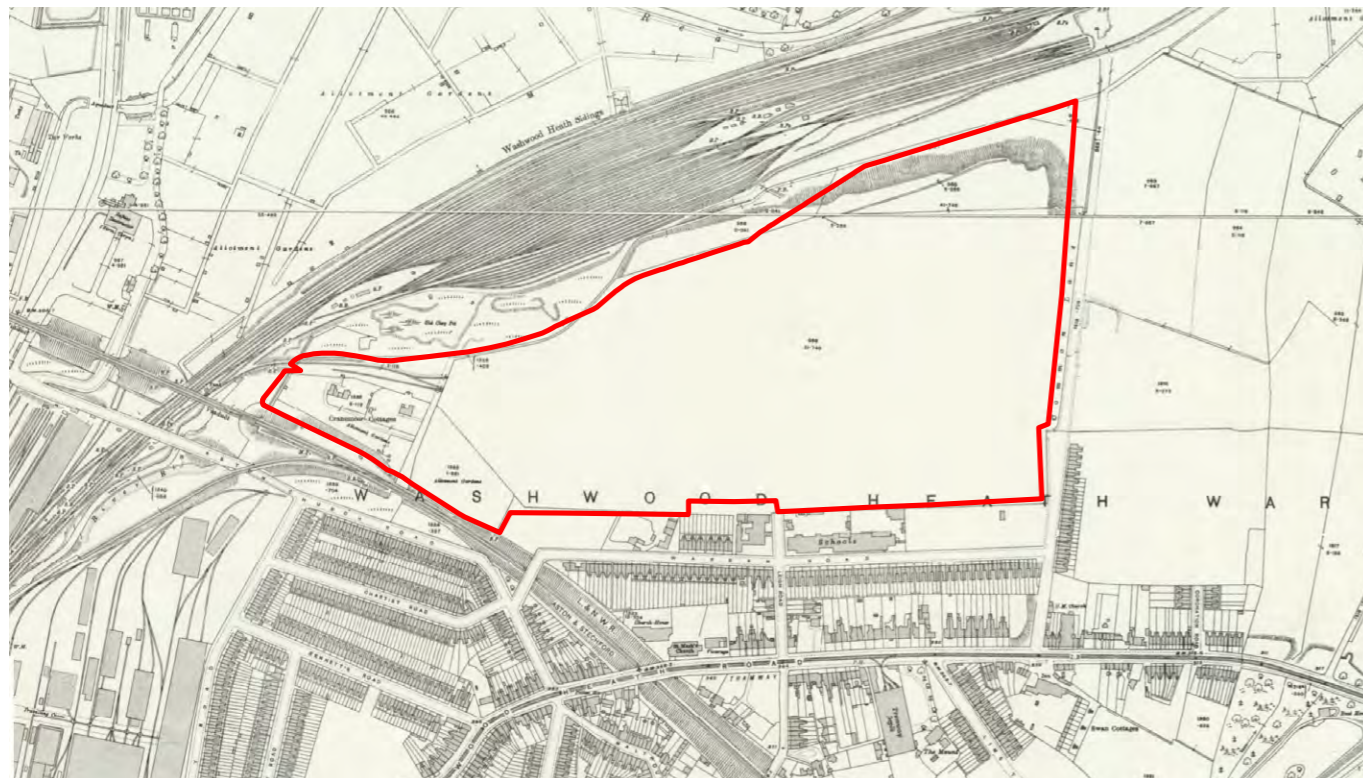


Plate 3: Ordnance Survey mapping of 1917, revised in 1913
 Ordnance Survey Edition of 1916 and 1917. Warwickshire Sheets VIII.14 and XIV.2. 1:25 inch.
 Southampton, Ordnance Survey.

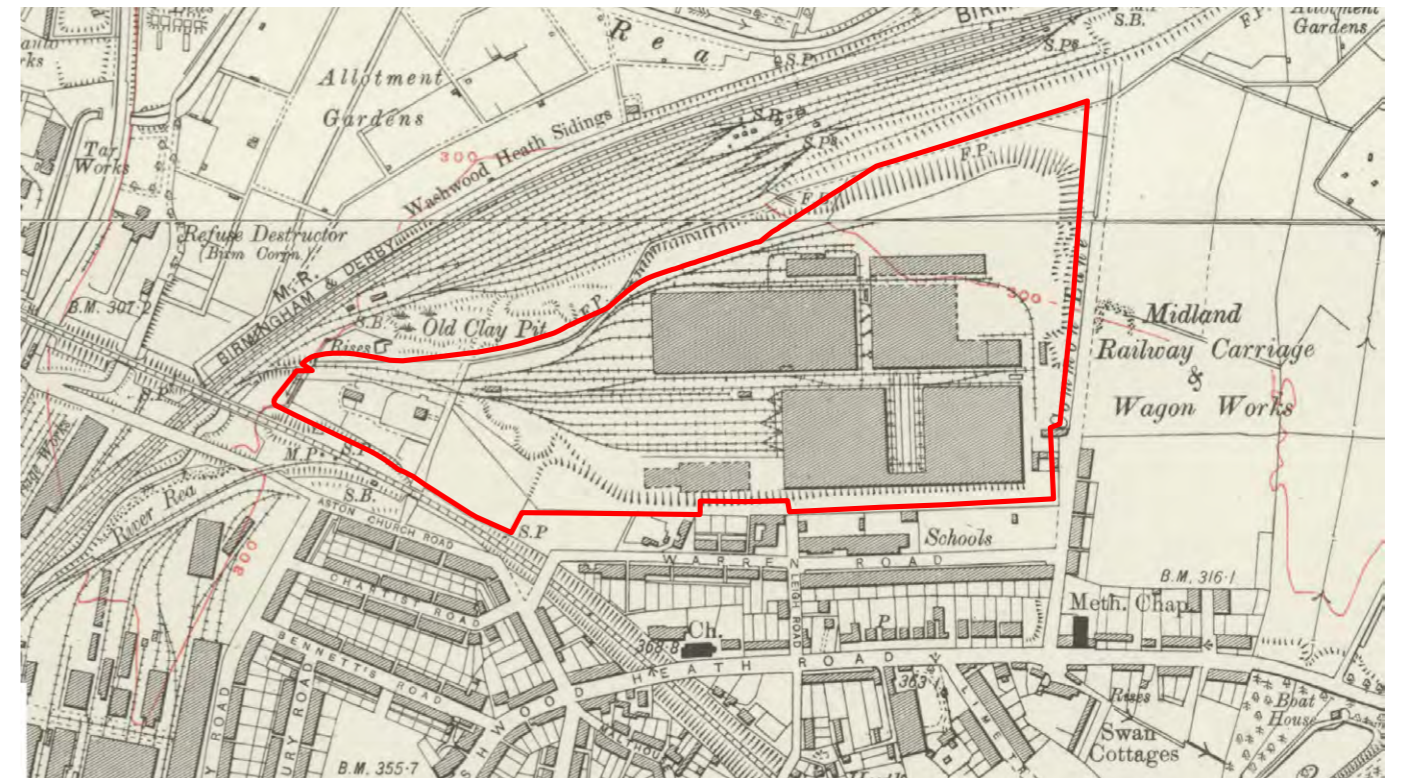


Plate 4: Ordnance Survey mapping of 1920, revised in 1913
 Warwickshire Sheet XIV.NW. 1:6 inch.

Map Number: Appendix B - Plates 1-4

Map Name: Map regression

Community Forum Area CFA26
 Washwood Heath to Curzon Street



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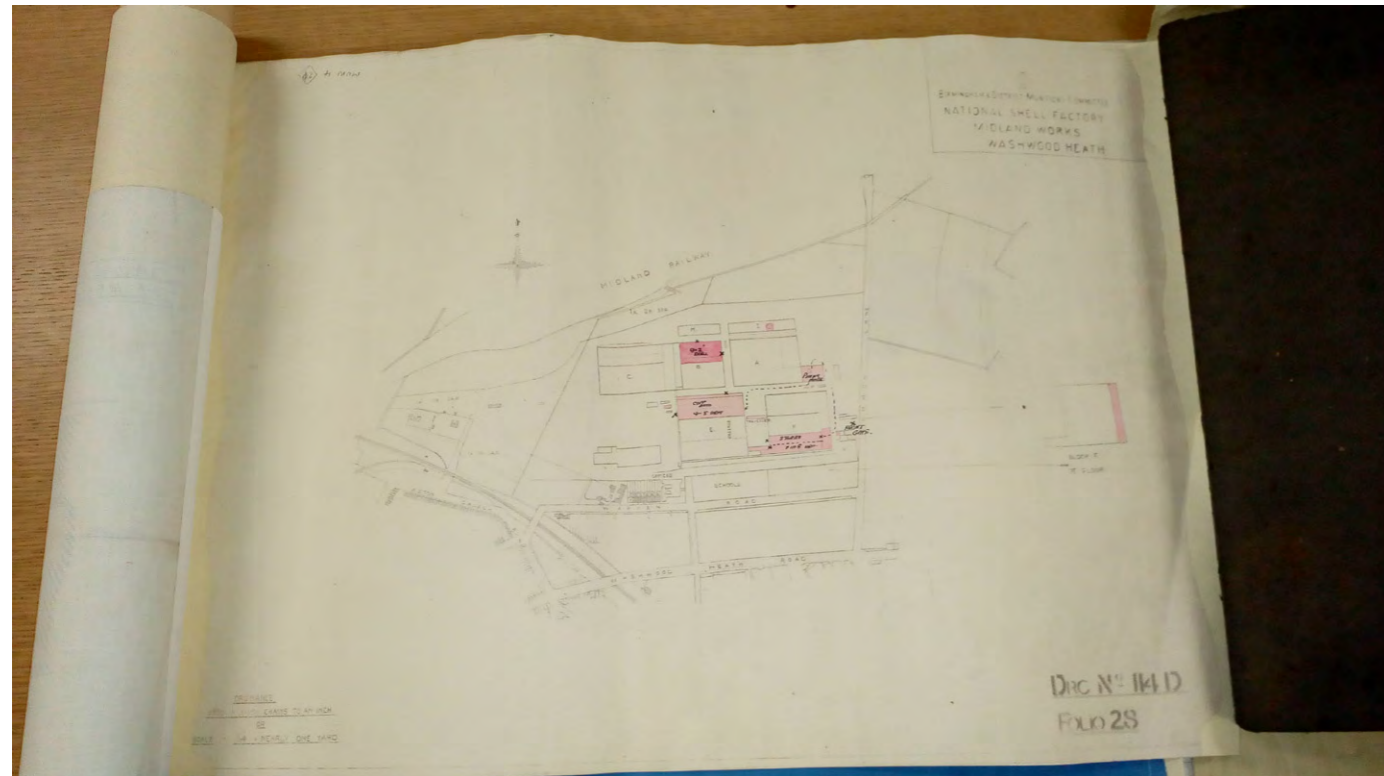


Plate 5: Plan of showing the National Shell Factory, Midland Works, National Archives ref MR1/1803/20 1913-1918

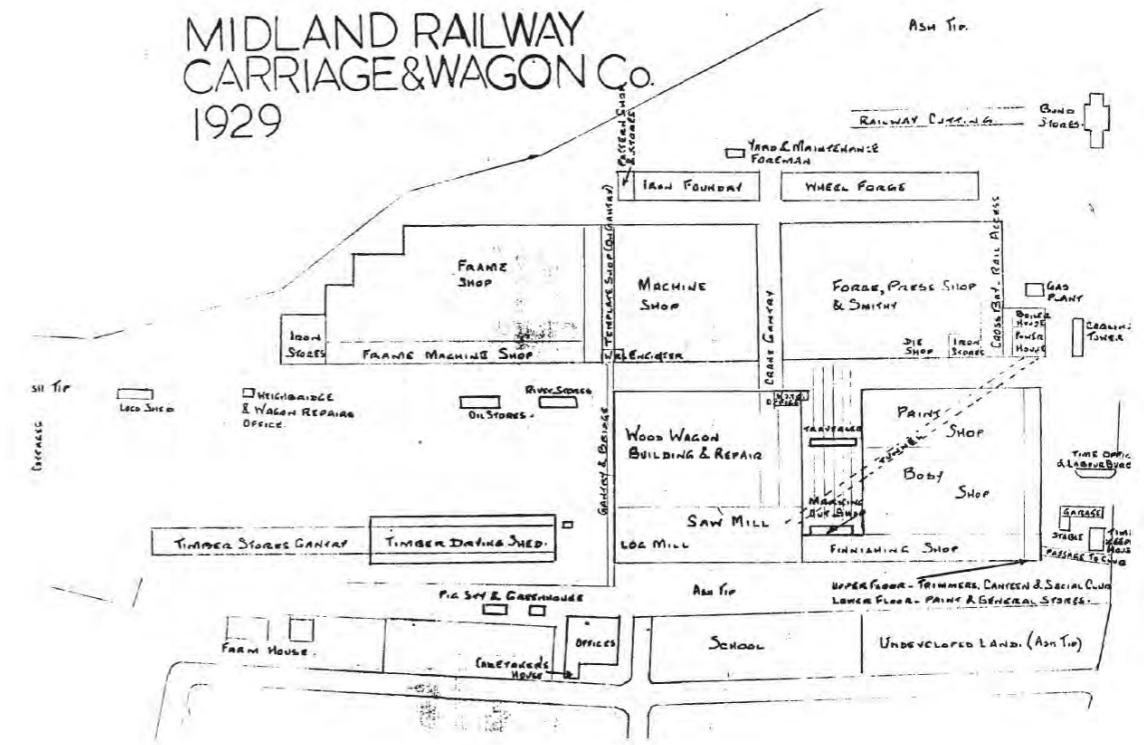


Plate 6: Plan of the works in 1929 from a Desk-Based Assessment of Washwood Heath by Cotswold Archaeology



Plate 7: Aerial Photograph of the Wolseley Motor Works and the Midland Railway Carriage Works, Ward End 1930 © Historic England

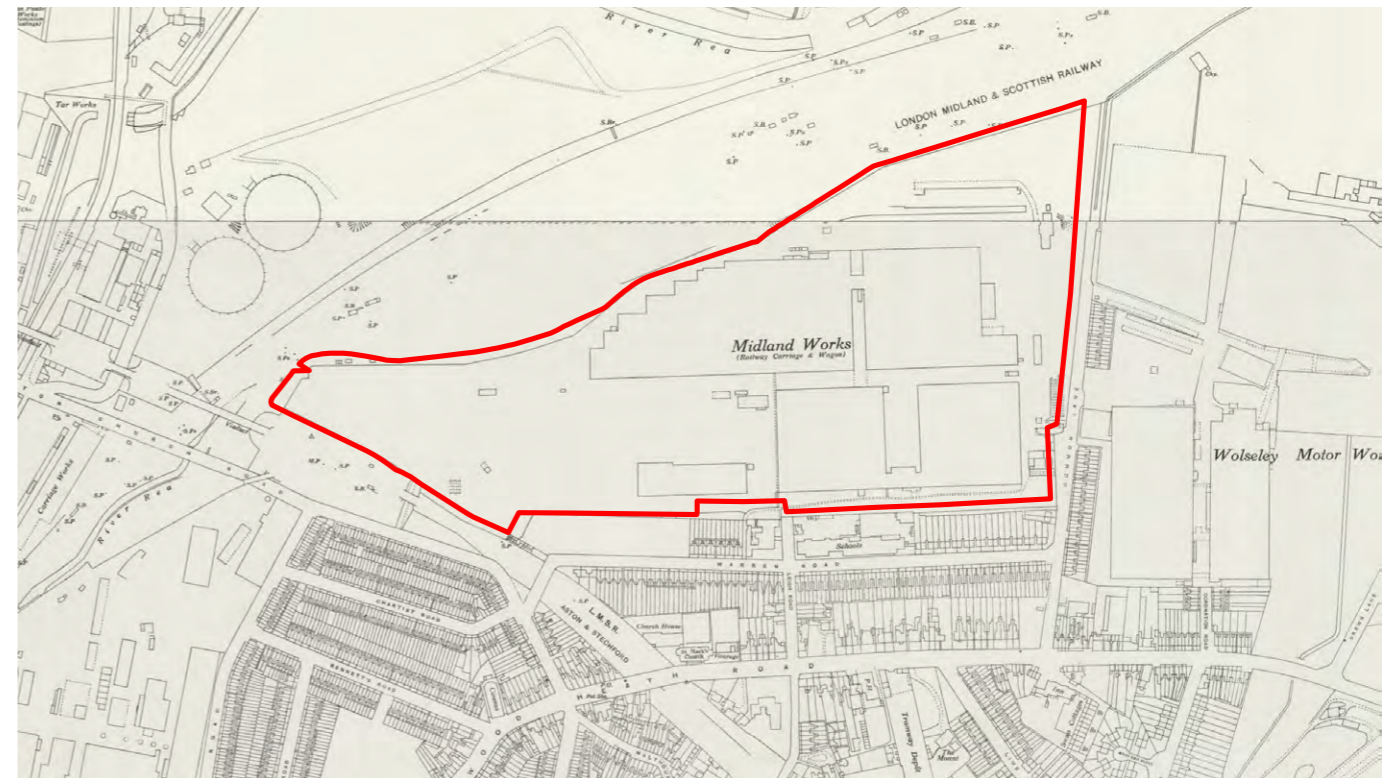


Plate 8: Ordnance Survey mapping of 1937, revised in 1945 Ordnance Survey Edition of 1945. Warwickshire Sheets VIII.14 and XIV.2. 1:25 inch.

Map Number Appendix B - Plates 5-8

Map Name Map regression

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Washwood Heath to Curzon Street



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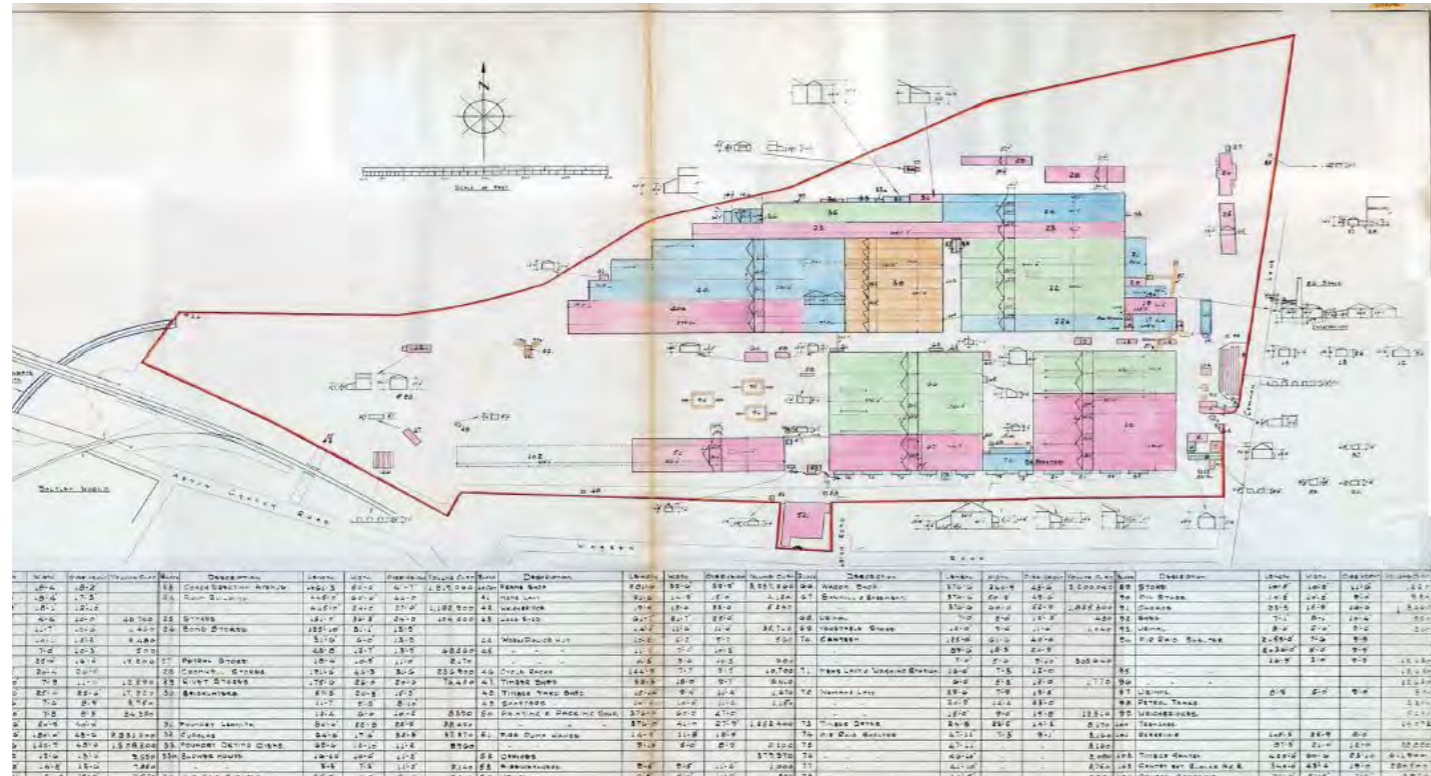


Plate 9: Plan of the works in 1948 from a Desk-Based Assessment of Washwood Heath by Cotswold Archaeology

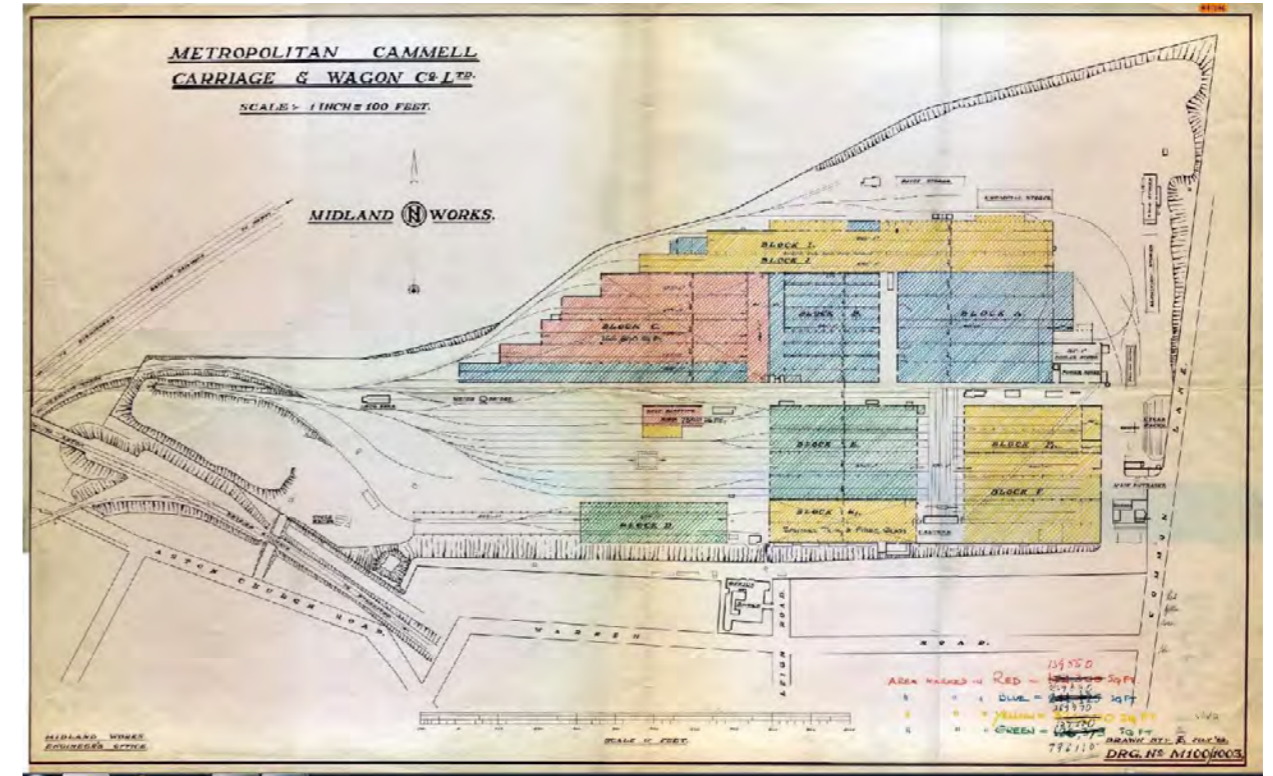


Plate 10: Drawing of the Metropolitan Cammell Carriage & Wagon Works Co 1962.

Map Number: Appendix B - Plates 9-10

Map Name: Map regression

Community Forum Area CFA26
Washwood Heath to Curzon Street



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Appendix C: Photographic Register, Figures Showing Photograph Locations

Photographic Reference	Site Location	Description	Direction taken from
Washwood001	G3	General view of shed interior	E
Washwood002	G2/G3	Detail of stanchion on north side of G3/south side of G2	ESE
Washwood003	G1/G2	General view of shed interiors	W
Washwood004	G2/G3	Shed interiors with detail of breeze block internal division in G2	SE
Washwood005	G2	Shed interior with inspection trench and electrical boxes	E
Washwood006	G2	Cabin office interior at west end of G2	E
Washwood007	G5	Corridor to south of offices	E
Washwood008	G5	Interior of largest office space	W
Washwood009	G5	Interior of offices with internal glass divisions	ESE
Washwood010	G3	Brick wall on north side of G3 with blocked openings, stanchions and steel rail	SE
Washwood011	G3	Brick wall on north side of G3 (W end) with windows, roller door and steel rail	SE
Washwood012	G3	west gable end of G3 with doors and stairs for entry into G6	E
Washwood013	G3	Shed interior with rail tracks	W
Washwood014	G4	LANARKSHIRE STEEL CO LD SCOTLAND 20 X 7 1/2 Foundry mark on steel rail	N
Washwood015	G3	Light streaming into G3 from south side	W
Washwood016	G3	Light streaming into G3 from south side	W
Washwood017	G3	Shed interior with rail tracks from top of staircase	Above W
Washwood018	G7	Bridge on 1st floor to gain access from external staircase on north	S
Washwood019	G8	Interior office divisions	SW
Washwood020	G9	Metal-floored room at west end of C6	SW
Washwood021	G4	west gable end with roller door entries, inspection trenches and south side brick pilasters	ENE
Washwood022	G4	west gable end and shed interior with roof trusses	E
Washwood023	G4	Central area of shed interior with stanchions on north and pilasters on south side	W
Washwood024	G3	CARGO FLEET ENGLAND foundry stamp on west gable end interior	E
Washwood025	G4/F1	Brick pilaster on south side of G4/north side of F1 with set screws in foreground	WNW
Washwood026	G4/G3	Length of brick wall at centre of north side of G4 shed (Metal sheeting behind wall is south side of G3)	SW
Washwood027	G4	LANARKSHIRE STEEL CO LD SCOTLAND 20 X 7 1/2 Foundry mark on steel rail on south side of shed	NNW
Washwood028	G4	Shed interior with missing pilaster on south side to allow for sideways movement of machinery in C1, now breeze-blocked up	NE

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Photographic Reference	Site Location	Description	Direction taken from
Washwood029	G3	DORMAN LONG & CO LD MIDDLESBROUGH 22 X 7 foundry mark on south side rail at E end of shed	NW
Washwood030	G3	APPLEBY-FRODINGHAM ENGLAND 22 X 7 foundry mark on north side rail at west end of shed	S
Washwood031	G3	Change in steel rail in centre of shed north side (aligned with west end of G2)	S
Washwood032	G3	Signage on roof trusses	E
Washwood033	C1-C3	View across shed interiors with train rail in foreground and stations demarcating shed divisions. Taken from within C1	NE
Washwood034	C1/C2	Missing stanchion to allow for "sideways movement" between sheds C1 and C2	NE
Washwood035	C1-C3	View across shed interiors. Taken from within C3	SW
Washwood036	C3/C2/D10	West gable end of C3 shed and open end of shed C2 (on right of photo), both allowing access into shed D10	ESE
Washwood037	C3/C2/C1/D10	Steel rail sitting atop brick pilaster at north end of west gable end of shed C3 (in foreground). Open west end of sheds C2 and C1 allowing access into shed D10 (in background)	SSE
Washwood038	C2	Shed interior with rail tracks	W
Washwood039	D10	Centre east interior elevation with access into C3	NW
Washwood040	C1	Breeze block north interior elevation	SW
Washwood041	D10	Shed interior and south gable end interior elevation	N
Washwood042	D10	north end of west interior elevation, breeze-blocks stopping access to sheds D1-D4 with detail of varying wall types and change in steel superstructure	NW
Washwood043	D10	Centre of west interior elevation, with wall signs	SE
Washwood044	C5b	Interior west gable end with steel rails in southwest corner of room	ESE
Washwood045	C4/C5a	View across shed interiors, taken from within C5	WSW
Washwood046	C4/C5a	View across shed interiors, taken from within C4	E
Washwood047	C6a	Internal view of the shed	W
Washwood048	C6a	Blocked openings at west end of north interior elevation	SW
Washwood049	C6a	Arched access to chimney at west end of south wall	N
Washwood050	C6b	Water tower exterior south elevation	S
Washwood051	C6b	north interior elevation with blocked up arch into chimney, and stairs up to mezzanine office	S
Washwood052	C6b	Interior north elevation of first floor office space	SE
Washwood053	C6c	Engine house interior north elevation with blocked openings and transmission blocks	S
Washwood054	C6c	Engine house cast-concrete and parquet brick floor	W
Washwood055	C6c	Engine house ground floor interior	W
Washwood056	C6c	HIGGINBOTTOM & MANNOCK LTD MANCHESTER crane plate mark	below W
Washwood057	C6c	Engine house travelling crane mechanism	below NW

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Revision: C02

Photographic Reference	Site Location	Description	Direction taken from
Washwood058	C6c	Engine house interior west elevation with blocked arched opening, tiling and water control	E
Washwood059	C6c	Central lobby area of offices at east end of engine house, with inspection pits	SE
Washwood060	C6c	Roof trusses and travelling crane extents with weight sign	below E
Washwood061	C6d	Steam engine footings	SE
Washwood062	C6d	Ground floor concrete supports and low brick internal divisions	E
Washwood063	C6d	Cylinder head, possibly from a steam engine	NE
Washwood064	C6d	Cylinder head, possibly from a steam engine	NW
Washwood065	C6b	Water control pipe at southwest corner of water tower ground floor	NE
Washwood066	D1-D4	View across sheds interior, taken from within D1	NE
Washwood067	D1	Interior rail track	E
Washwood068	D1-D4	View across sheds interior, taken from within D4	SW
Washwood069	D5-D9	View across sheds interior, taken from within D5	NE
Washwood070	D5-D7	Internal east gable ends	NW
Washwood071	D8	Sliding door on internal east gable end	W
Washwood072	D7	Curved cart tracks at interior east end of shed	S
Washwood073	D5-D9	View across sheds interior, taken from within D9	SW
Washwood074	D8/D9	Detail of stanchion separating D8 and D9 sheds	WNW
Washwood075	D8	Cart rail with turning circle at interior west end of shed	W
Washwood076	E1/E2	View across sheds interior with office space separating the north and south shed ends	SE
Washwood077	E1/E2	Interior north gable ends of sheds	SSW
Washwood078	E1/E2	General view of office space interior showing internal glass divisions	NW
Washwood079	F1	Shed interior with spraying room	NE
Washwood080	F1	Interior of spraying room	E
Washwood081	F1	west end of shed interior showing west gable end and inspection trenches	E
Washwood082	F1	Rail leading into the spraying room and pipe trench to north of spraying room	W
Washwood083	F2-F5	View across sheds interior	NE
Washwood084	F2-F5	Interior east end timber gable	W
Washwood085	F3-F5	Sheds interior showing how sheds end at different points at west end, taken from within F5	ESE
Washwood086	F2-F5	View across sheds interior	SW
Washwood087	F5	Brick pilasters, stanchions and blocked openings on interior south elevation	NE
Washwood088	F4/F5	Brick pilasters and varying stanchions separating sheds F4 and F5	SW
Washwood089	F5	Exterior west gable with rail leading in through roller door at south end of the elevation, with modern shed abutting to the south	W
Washwood090	Loco shed	Exterior east elevation of loco shed with single rail to the north	E

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Photographic Reference	Site Location	Description	Direction taken from
		separating to end the different sheds of building F	
Washwood091	F2-F4	Exterior west gable ends with rail tracks leading into their roller doors	W
Washwood092	F5	Exterior north elevation	N
Washwood093	F4	Exterior north elevation	NW
Washwood094	F2/F3	F3 exterior west gable end and F4 exterior north elevation with small brick shed on exterior	NW
Washwood095	Rail	Single rail splitting to lead into three different sheds with switch mechanism	W
Washwood096	F2	Exterior north elevation	NW
Washwood097	F1	Exterior west metal paneled gable end	W
Washwood098	F1/G4	F1 exterior north elevation and G4 exterior west gable end	WNW
Washwood099	G3	west end of exterior north elevation	NE
Washwood100	G3	Detail of roller door at west end of exterior north elevation	N
Washwood101	G5	north and west elevations of later offices abutting north elevation of G3	NW
Washwood102	G5	Area of brick offices at the centre of G5	NNW
Washwood103	G2	Exterior north elevation of corrugated lean-to aisle	NW
Washwood104	G7?	Brick built storage units on exterior north of Building G	NW
Washwood105	G1	Exterior north and west elevations of corrugated lean-to aisle G1	NW
Washwood106	G2-G4	Exterior east gable ends	NE
Washwood107	C1-C3	Exterior east gable ends of C1-C3 and exterior north elevation of C1	NE
Washwood108	C6a	Exterior north elevation with blocked openings (small, door and arched), brick pilasters and brick corbels	N
Washwood109	G6a	Compressors on interior and internal south elevation with painted windows adjoining shed G4	NE
Washwood110	G6a	Interior west gable end with compressor set in wall and doorway to G6c at west end of north elevation (to right of picture)	ENE
Washwood111	G6b	Interior of liquid tank room with blocked opening on east wall leading to west end of shed G3	SW
Washwood112	G6b	Jack arching	below WSW
Washwood113	G6c	Interior of train washing room, west end	E
Washwood114	G6c	Interior of train washing room, east end with roller door leading through to west gable end of G3	W
Washwood115	G6d	Interior of plastic corrugated train washing room with roller door leading through to north end of G3 west gable end	W
Washwood116	G6c/G6d	Exterior north elevation of G6c and exterior west elevation of G6e with staircase to north of G6d leading up to bridge access to first floor G6 rooms	WNW
Washwood117	G6c	Exterior north elevation with modified brickwork on northwest corner	NNW
Washwood118	Loco shed	Exterior south and east elevations	SE

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Revision: Co2

Photographic Reference	Site Location	Description	Direction taken from
Washwood119	Loco shed	Exterior west elevation with blocked roller door	WSW
Washwood120	Loco shed	Exterior north and west elevations with blocked openings and ventilation equipment on the roof	NW
Washwood121	HX	Exterior north and west elevations	NW
Washwood122	HX	Exterior north and east elevations	NE
Washwood123	H1/H2	Exterior west elevations of H1 and H2, and exterior north elevation of H2	NW
Washwood124	H1	Exterior north and east elevations	NE
Washwood125	No. 2 sub-station	Exterior north elevation and modified brick building to the west	N
Washwood126	No. 2 sub-station	Detail of metal doors	NW
Washwood127	H1	Shed interior	E
Washwood128	H1	southeast interior corner of shed with stanchions and modern offices	NW
Washwood129	H1	Switch board/circuit breaker	SW
Washwood130	H1	Interior east gable end with travelling crane in front	W
Washwood131	H1	View across south aisle	E
Washwood132	H1	Detail of door and cabin office at centre of south wall	N
Washwood133	H1	Shed interior	W
Washwood134	H1	Reinforcing beam at southwest corner of shed interior	NE
Washwood135	Sub-station	Exterior north and west elevations of small sub-station at southwest corner of site	NW
Washwood136	F5	west end of exterior south elevation	SE
Washwood137	F5	Central area of exterior south elevation	SW
Washwood138	F5	Blocked doorway in central section of exterior south elevation	SE
Washwood139	F5	east end of exterior south elevation	SW
Washwood140	E1/E2	Exterior south gable ends	S
Washwood141	E3	Interior of first floor winch room	SW
Washwood142	E3	Interior of first floor winch room	NE
Washwood143	E3	DORMAN LONG & CO LD MIDDLESBROUGH ENGLAND 2 foundry mark on winch rail	below E
Washwood144	B1	Exterior north elevation	above NW
Washwood145	C6a/C6c	Exterior east gable ends	NE
Washwood146	C6a-C6c	Exterior east gable ends of C6a and C6c, exterior south elevation of C6b and C6c	SE
Washwood147	C6c	Exterior south elevation	SSE
Washwood148	C5	Exterior south elevation, east end	SSE
Washwood149	C5	Exterior south elevation, central area	SW
Washwood150	C5/D9/D10	Exterior south elevations including D10 gable end	SE
Washwood151	D9	Exterior south elevation	S

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Photographic Reference	Site Location	Description	Direction taken from
Washwood152	D9/E1/E2/ F5	Exterior south elevations including E1 and E2 gable ends	SE
Washwood153	E1/E2	Exterior south gable ends	SSW
Washwood154	B1-B6	Exterior west gable ends	NW
Washwood155	B5/B6	Exterior west gable ends	W
Washwood156	B1-B4	Exterior west gable ends	SW
Washwood157	B1	Exterior northwest corner with archway	NW
Washwood158	B1	Exterior north elevation with varying windows and inserted openings	N
Washwood159	B1	Central area of exterior north elevation with liquid store and brick lean-tos	NW
Washwood160	B1	east end of exterior north elevation and exterior east gable end	NE
Washwood161	B1	east end of exterior north elevation and exterior east gable end	NE
Washwood162	B1-B3	Exterior east gable ends	E
Washwood163	B3-B5	Exterior east gable ends	NE
Washwood164	A6/B6	north elevation of connecting section sheds A6/B6	N
Washwood165	A4/A5	Exterior west gable ends	WNW
Washwood166	A1-A3	Exterior west gable ends	WSW
Washwood167	A1	Exterior north elevation of offices at east end of A1	NNE
Washwood168	A3	Shed interior	W
Washwood169	A3	Shed interior	E
Washwood170	A3	Blocked opening at east end of north interior elevation, with additional small pilasters	S
Washwood171	A3	Detail of cut off metal rail at west end of south wall	NW
Washwood172	A3	Brick pilaster on north elevation with entry into A2	SE
Washwood173	A2	Dilapidated stairway at east end of A2 giving access into upstairs office area	W
Washwood174	A2	east interior elevation with stairs, metal doors and metal paneled wall	W
Washwood175	A2	Shed interior	E
Washwood176	A2	Brick floor with train and cart rails at west end of shed interior	SW
Washwood177	A2	Shed interior with stanchions and open wall into A1 to north (left) and brick wall with pilasters to south	W
Washwood178	A1	Shed interior with brick wall and pilasters on north acting as Building A exterior north wall	WSW
Washwood179	A1	Concrete cast floor with brick infill at west end of shed interior	W
Washwood180	A1	west end of north wall interior elevation with low and high bricked openings	S
Washwood181	A1	Interior east gable end	W
Washwood182	A1/A2	View across shed interiors	NE
Washwood183	A4/A5	View across sheds interior, taken from within A4	NE

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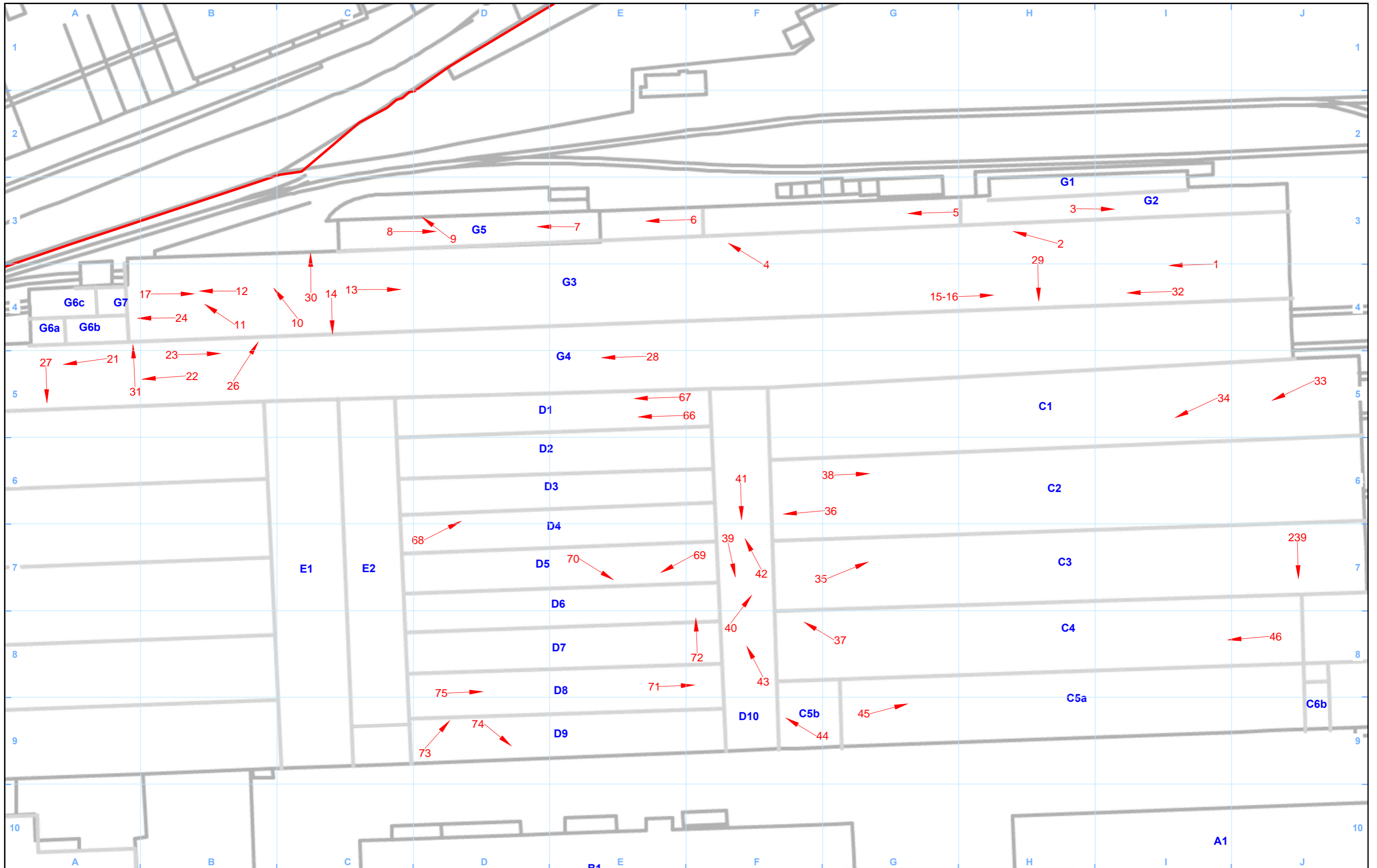
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Photographic Reference	Site Location	Description	Direction taken from
Washwood184	A4/A5	east interior gable ends	WNW
Washwood185	A5	Brick block with door at east end of south elevation for entry into A6	N
Washwood186	A5/A4	View across sheds interior, taken from within A5	SW
Washwood187	A4	Detail of southwest corner of shed interior with hoist equipment	NE
Washwood188	A7	Stairs within office area	ENE
Washwood189	A7	Typical office area	NW
Washwood190	A7	Hatch within offices	E
Washwood191	A7	Office entry and lobby area	SW
Washwood192	A7	Blocked access from offices into A2 ground floor	E
Washwood193	A7	Open office space on 1st floor with glass divided offices in background	SW
Washwood194	B1	Shed interior	W
Washwood195	B1	Interior north elevation with various windows and doors acting as exterior north wall of Building B	SW
Washwood196	B1	Detail of two direction train rails crossing at E end of shed interior	S
Washwood197	B1	General view of shed interior	E
Washwood198	B2	General view of shed interior	E
Washwood199	B2	Interior east gable end	W
Washwood200	B2	Cast concrete floor with rails and drains at west end of interior	SE
Washwood201	B2	Train rails at west end of shed interior	E
Washwood202	B2	Train rails oriented east-west at south side of shed interior with modern concrete infill of inspection trench	W
Washwood203	B3	Shed interior	E
Washwood204	B3	Shed interior	W
Washwood205	B4	Shed interior	E
Washwood206	B4	Shed interior	W
Washwood207	HX	Shed interior	E
Washwood208	HX	Shed interior	W
Washwood209	HX	Detail of train rail on cast concrete floor	WNW
Washwood210	HX	Original stanchion and cut-off rail above in west corner of shed	NW
Washwood211	H2	Large shed area interior	E
Washwood212	H2	Large shed area interior and offices to the east	W
Washwood213	H2	First floor office area	NNE
Washwood214	H2	Small shed interior to the west	E
Washwood215	H2	Small shed interior to the west	W
Washwood216	H2	Combination of original and modern stanchions on south wall	WNW
Washwood217	H/HX	General view of southwest area of site	W
Washwood218	F/H/HX	General view of west area of site	SW
Washwood219	F	Train rails leading into the west end gables of Building F	W
Washwood220	B/H	General view of relationship between Buildings B and H	W

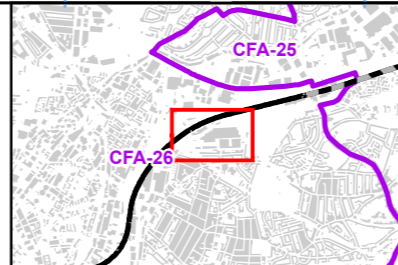
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Photographic Reference	Site Location	Description	Direction taken from
Washwood221	B/E/F	General view of relationship between Buildings B, E and F	S
Washwood222	B6	Exterior south elevation at west end	SSW
Washwood223	Air raid shelter	Possible air raid shelter with entry steps	SW
Washwood224	B	Rail lines leading into west gable ends of Building B	WNW
Washwood225	A/B/C	Relationship between Buildings A, B and C	W
Washwood226	A/B	Relationship between Buildings A and B	N
Washwood227	A1/A2	Exterior east gable ends (offices)	E
Washwood228	A1-A6	Exterior east gable ends	NE
Washwood229	A/C	Relationship between Buildings A and C	E
Washwood230	A3/A4	Exterior east gable ends	ESE
Washwood231	A5/A6	Exterior east gable ends	SE
Washwood232	A6	Exterior south elevation at east end	ESE
Washwood233	A6	Pilasters on exterior south elevation	E
Washwood234	A6	Ventilators in the centre of south exterior elevation	SE
Washwood235	Gatehouse	Exterior south elevation with curved southwest corner	SW
Washwood236	Firehouse?	Exterior north elevation	NW
Washwood237	G/C	View of relationship between buildings C and G, E gable ends	NE
Washwood238	northwest building	Exterior south and east elevations	SE
Washwood239	C3	Extension at east end of C3 with additional small stanchions, corbel detail from earlier exterior elevation, and detail of steel rail end resting on pilaster at original building end	NW
Washwood240	F5	Three different stanchions at east end of shed interior	SW



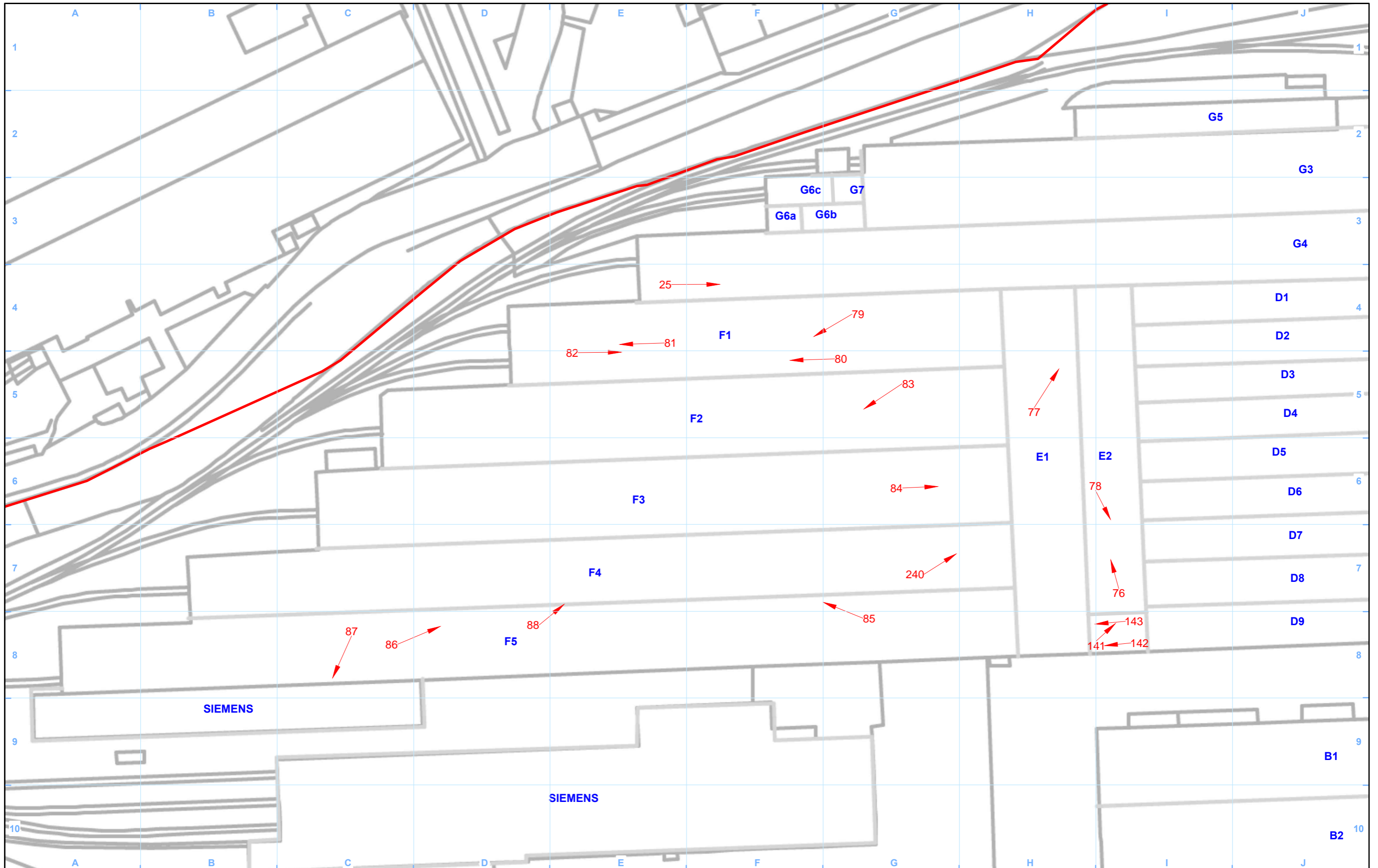
Legend
 Site Extent
HX Building number
001 Photographic location



Map Number: Appendix C
 Map Name: Washwood Heath Photo Locations Buildings C, D and G
 Community Forum Area CFA26
 Washwood Heath to Curzon Street

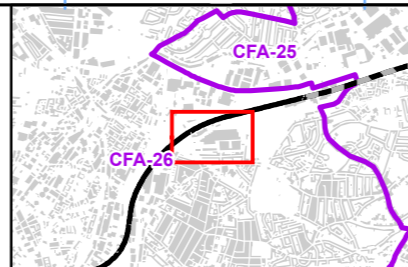
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Scale at A3: 1:800



Legend

- Site Extent
- HX Building number
- 001 Photographic location



Map Number: **Appendix C**

Map Name: **Washwood Heath Photo Locations Buildings E, F and G**

Community Forum Area CFA26
Washwood Heath to Curzon Street

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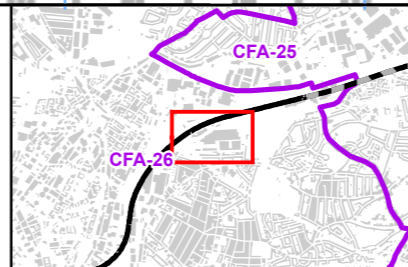
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Doc Number: 1EW04-LMJ-EV-REP-NS03_NL08-029001 Date: 13/12/18



Legend

- Site Extent
- HX** Building number
- 001** Photographic location



Map Number	Appendix C
Map Name	Washwood Heath Photo Locations Building H
	Community Forum Area CFA26 Washwood Heath to Curzon Street

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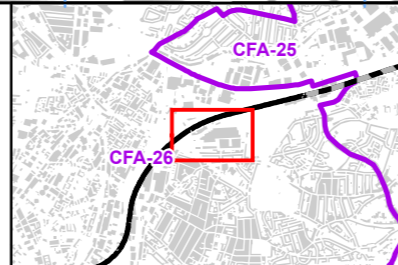
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Legend
 Site Extent
HX Building number
001 Photographic location



Map Number: Appendix C
 Map Name: Washwood Heath Photo Locations Buildings A and B
 Community Forum Area CFA26
 Washwood Heath to Curzon Street

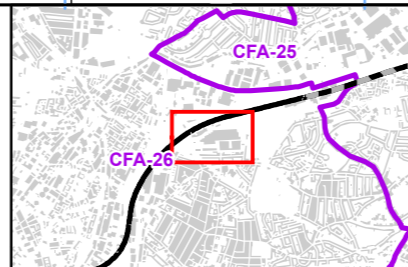
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Legend

- Site Extent
- Building C location
- HX** Building number
- 001** Photographic location



Map Number	Appendix C
Map Name	Washwood Heath Photo Locations Building C
	Community Forum Area CFA26 Washwood Heath to Curzon Street




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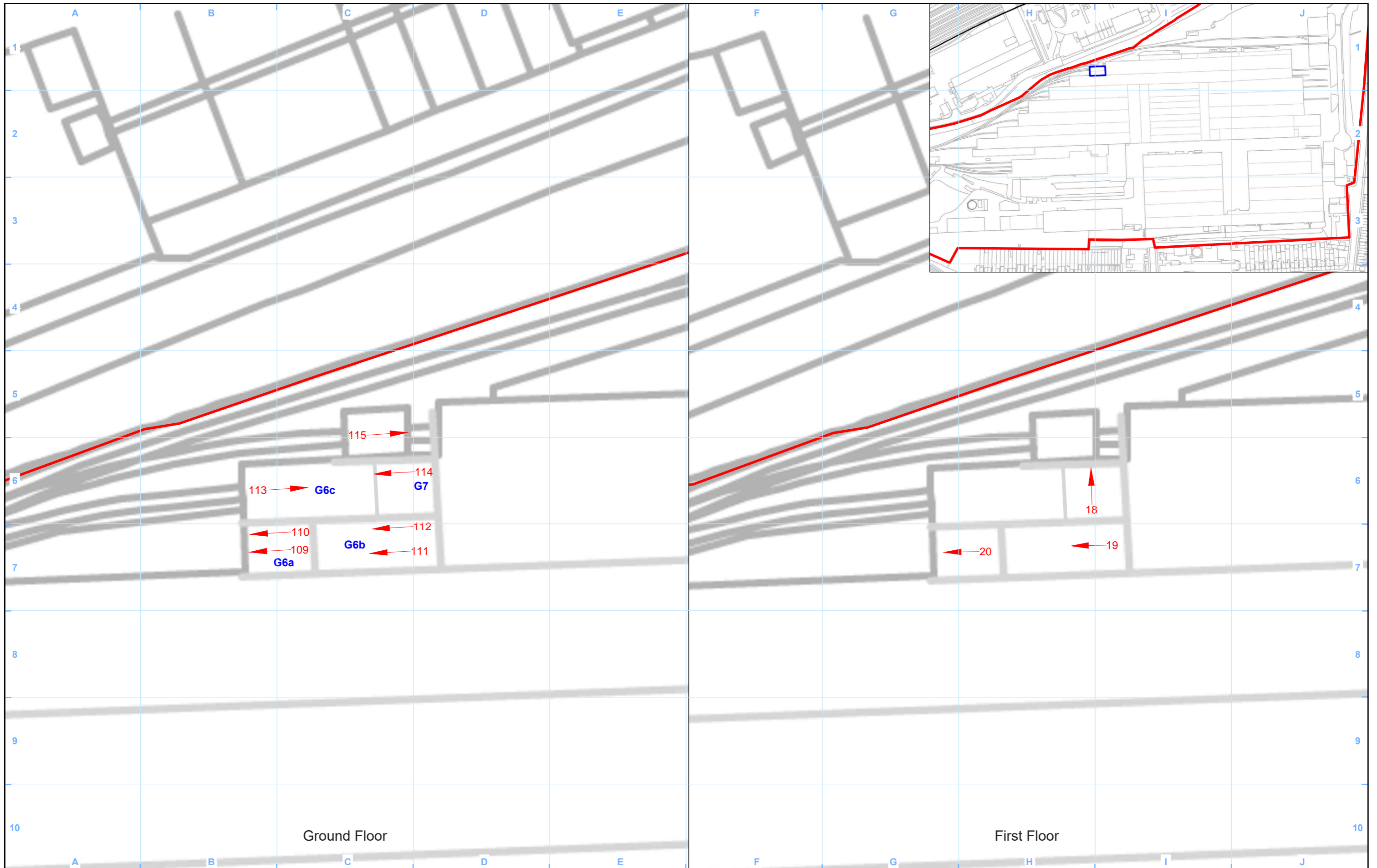
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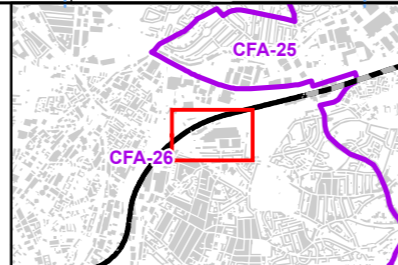
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Date: 13/12/18



- Legend**
- Site Extent
 - Building C location
 - HX** Building number
 - 001** Photographic location



Map Number	Appendix C
Map Name	Washwood Heath Photo Locations Building G
	Community Forum Area CFA26 Washwood Heath to Curzon Street




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Scale at A3: 1:400



Date: 13/12/18



Photograph No. Washwood001
Description: General view of shed interior
Site Location: G3
Direction From: E



Photograph No. Washwood002
Description: Detail of stanchion on north side of G3/south side of G2
Site Location: G2/G3
Direction From: ESE



Photograph No. Washwood003
Description: General view of shed interiors
Site Location: G1/G2
Direction From: W



Photograph No. Washwood004
Description: Shed interiors with detail of breeze block internal division in G2
Site Location: G2/G3
Direction From: SE



Photograph No. Washwood005
Description: Shed interior with inspection trench and electrical boxes
Site Location: G2
Direction From: E



Photograph No. Washwood006
Description: Cabin office interior at west end of G2
Site Location: G2
Direction From: E



Photograph No. Washwood007
Description: Corridor to south of offices
Site Location: G5
Direction From: E



Photograph No. Washwood008
Description: Interior of largest office space
Site Location: G5
Direction From: W



Photograph No. Washwoodo09
Description: Interior of offices with internal glass divisions
Site Location: G5
Direction From: ESE



Photograph No. Washwoodo10
Description: Brick wall on north side of G3 with blocked openings, stanchions and steel rail
Site Location: G3
Direction From: SE



Photograph No. Washwood011

Description: Brick wall on north side of G3 (W end) with windows, roller door and steel rail

Site Location: G3

Direction From: SE



Photograph No. Washwood012

Description: west gable end of G3 with doors and stairs for entry into G6

Site Location: G3

Direction From: E



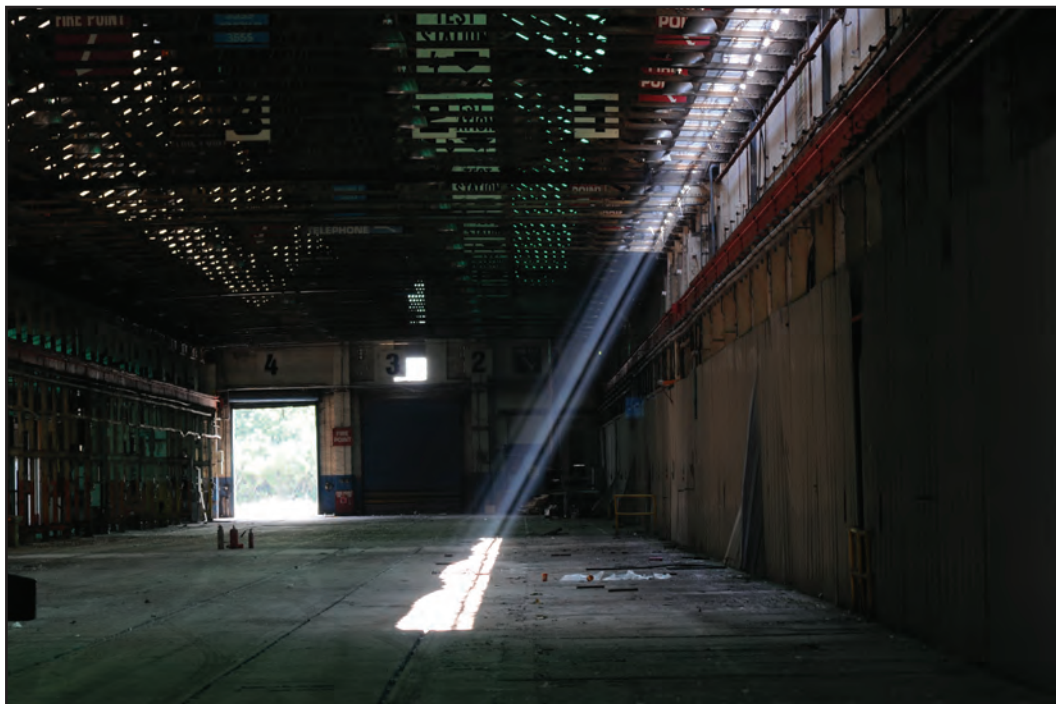
Photograph No. Washwood013
Description: Shed interior with rail tracks
Site Location: G3
Direction From: W



Photograph No. Washwood014
Description: LANARKSHIRE STEEL CO LD SCOTLAND 20 X 7 1/2 Foundry mark on steel rail
Site Location: G4
Direction From: N



Photograph No. Washwood015
Description: Light streaming into G3 from south side
Site Location: G3
Direction From: W



Photograph No. Washwood016
Description: Light streaming into G3 from south side
Site Location: G3
Direction From: W



Photograph No. Washwood017
Description: Shed interior with rail tracks from top of staircase
Site Location: G3
Direction From: Above W



Photograph No. Washwood018
Description: Bridge on 1st floor to gain access from external staircase on north
Site Location: G7
Direction From: S



Photograph No. Washwood019
Description: Interior office divisions
Site Location: G8
Direction From: SW



Photograph No. Washwood020
Description: Metal-floored room at west end of C6
Site Location: G9
Direction From: SW



Photograph No. Washwood021

Description: west gable end with roller door entries, inspection trenches and south side brick pilasters

Site Location: G4

Direction From: ENE



Photograph No. Washwood022

Description: west gable end and shed interior with roof trusses

Site Location: G4

Direction From: E



Photograph No. Washwood023

Description: Central area of shed interior with stanchions on north and pilasters on south side

Site Location: G4

Direction From: W



Photograph No. Washwood024

Description: CARGO FLEET ENGLAND foundry stamp on west gable end interior

Site Location: G3

Direction From: E



Photograph No. Washwood025

Description: Brick pilaster on south side of G₄/north side of F₁ with set screws in foreground

Site Location: G₄/F₁

Direction From: WNW



Photograph No. Washwood026

Description: Length of brick wall at centre of north side of G₄ shed (Metal sheeting behind wall is south side of G₃)

Site Location: G₄/G₃

Direction From: SW



Photograph No. Washwood027
Description: LANARKSHIRE STEEL CO LD SCOTLAND 20 X 7 1/2 Foundry mark on
steel rail on south side of shed
Site Location: G4
Direction From: NNW



Photograph No. Washwood028
Description: Shed interior with missing pilaster on south side to allow for sideways
movement of machinery in C1, now breeze-blocked up
Site Location: G4
Direction From: NE



Photograph No. Washwood029
Description: DORMAN LONG & CO LD MIDDLESBROUGH 22 X 7 foundry mark on south side rail at E end of shed
Site Location: G3
Direction From: NW



Photograph No. Washwood030
Description: APPLEBY-FRODINGHAM ENGLAND 22 X 7 foundry mark on north side rail at west end of shed
Site Location: G3
Direction From: S



Photograph No. Washwood031

Description: Change in steel rail in centre of shed north side (aligned with west end of G2)

Site Location: G3

Direction From: S



Photograph No. Washwood032

Description: Signage on roof trusses

Site Location: G3

Direction From: E



Photograph No. Washwood033

Description: View across shed interiors with train rail in foreground and stations demarcating shed divisions. Taken from within C1

Site Location: C1-C3

Direction From: NE



Photograph No. Washwood034

Description: Missing stanchion to allow for "sideways movement" between sheds C1 and C2

Site Location: C1/C2

Direction From: NE



Photograph No. Washwood035
Description: View across shed interiors. Taken from within C3
Site Location: C1-C3
Direction From: SW



Photograph No. Washwood036
Description: West gable end of C3 shed and open end of shed C2 (on right of photo),
both allowing access into shed D10
Site Location: C3/C2/D10
Direction From: ESE



Photograph No. Washwood037

Description: Steel rail sitting atop brick pilaster at north end of west gable end of shed C₃ (in foreground). Open west end of sheds C₂ and C₁ allowing access into shed D₁₀ (in background)

Site Location: C₃/C₂/C₁/D₁₀

Direction From: SSE



Photograph No. Washwood038

Description: Shed interior with rail tracks

Site Location: C₂

Direction From: W



Photograph No. Washwood039
Description: Centre east interior elevation with access into C3
Site Location: D10
Direction From: NW



Photograph No. Washwood040
Description: Breeze block north interior elevation
Site Location: C1
Direction From: SW



Photograph No. Washwood041
Description: Shed interior and south gable end interior elevation
Site Location: D10
Direction From: N



Photograph No. Washwood042
Description: north end of west interior elevation, breeze-blocks stopping access to sheds D1-D4 with detail of varying wall types and change in steel superstructure
Site Location: D10
Direction From: NW



Photograph No. Washwood043
Description: Centre of west interior elevation, with wall signs
Site Location: D10
Direction From: SE



Photograph No. Washwood044
Description: Interior west gable end with steel rails in southwest corner of room
Site Location: C5b
Direction From: ESE



Photograph No. Washwood045
Description: View across shed interiors, taken from within C5
Site Location: C4/C5a
Direction From: WSW



Photograph No. Washwood046
Description: View across shed interiors, taken from within C4
Site Location: C4/C5a
Direction From: E



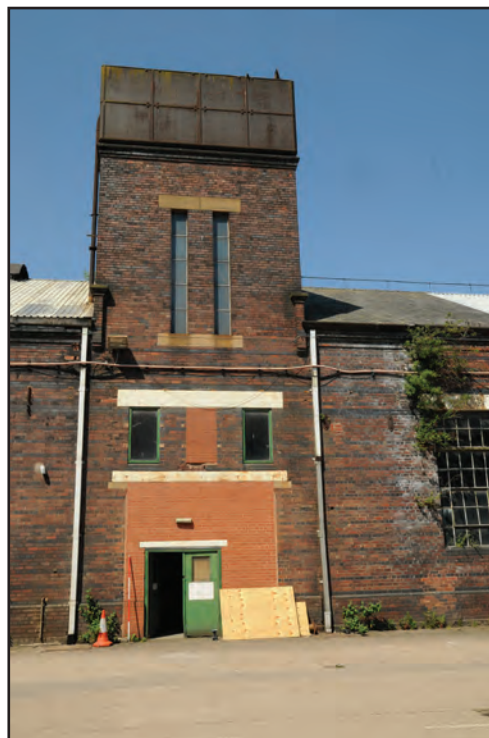
Photograph No. Washwood047
Description: Internal view of the shed
Site Location: C6a
Direction From: W



Photograph No. Washwood048
Description: Blocked openings at west end of north interior elevation
Site Location: C6a
Direction From: SW



Photograph No. Washwood049
Description: Arched access to chimney at west end of south wall
Site Location: C6a
Direction From: N



Photograph No. Washwood050
Description: Water tower exterior south elevation
Site Location: C6b
Direction From: S



Photograph No. Washwood051

Description: north interior elevation with blocked up arch into chimney, and stairs up to mezzanine office

Site Location: C6b

Direction From: S



Photograph No. Washwood052

Description: Interior north elevation of first floor office space

Site Location: C6b

Direction From: SE



Photograph No. Washwood053

Description: Engine house interior north elevation with blocked openings and transmission blocks

Site Location: C6c

Direction From: S



Photograph No. Washwood054

Description: Engine house cast-concrete and parquet brick floor

Site Location: C6c

Direction From: W



Photograph No. Washwood055
Description: Engine house ground floor interior
Site Location: C6c
Direction From: W



Photograph No. Washwood056
Description: HIGGINBOTTOM & MANNOCK LTD MANCHESTER crane plate mark
Site Location: C6c
Direction From: below W



Photograph No. Washwood057
Description: Engine house travelling crane mechanism
Site Location: C6c
Direction From: below NW



Photograph No. Washwood058
Description: Engine house interior west elevation with blocked arched opening, tiling
and water control
Site Location: C6c
Direction From: E



Photograph No. Washwood059

Description: Central lobby area of offices at east end of engine house, with inspection pits

Site Location: C6c

Direction From: SE



Photograph No. Washwood060

Description: Roof trusses and travelling crane extents with weight sign

Site Location: C6c

Direction From: below E



Photograph No. Washwood061
Description: Steam engine footings
Site Location: C6d
Direction From: SE



Photograph No. Washwood062
Description: Ground floor concrete supports and low brick internal divisions
Site Location: C6d
Direction From: E



Photograph No. Washwood063
Description: Cylinder head, possibly from a steam engine
Site Location: C6d
Direction From: NE



Photograph No. Washwood064
Description: Cylinder head, possibly from a steam engine
Site Location: C6d
Direction From: NW



Photograph No. Washwood065

Description: Water control pipe at southwest corner of water tower ground floor

Site Location: C6b

Direction From: NE



Photograph No. Washwood066

Description: View across sheds interior, taken from within D1

Site Location: D1-D4

Direction From: NE



Photograph No. Washwood067
Description: Interior rail track
Site Location: D1
Direction From: E



Photograph No. Washwood068
Description: View across sheds interior, taken from within D4
Site Location: D1-D4
Direction From: SW



Photograph No. Washwood069
Description: View across sheds interior, taken from within D5
Site Location: D5-D9
Direction From: NE



Photograph No. Washwood070
Description: Internal east gable ends
Site Location: D5-D7
Direction From: NW



Photograph No. Washwood071
Description: Sliding door on internal east gable end
Site Location: D8
Direction From: W



Photograph No. Washwood072
Description: Curved cart tracks at interior east end of shed
Site Location: D7
Direction From: S



Photograph No. Washwood073
Description: View across sheds interior, taken from within D9
Site Location: D5-D9
Direction From: SW



Photograph No. Washwood074
Description: Detail of stanchion separating D8 and D9 sheds
Site Location: D8/D9
Direction From: WNW



Photograph No. Washwood075
Description: Cart rail with turning circle at interior west end of shed
Site Location: D8
Direction From: W



Photograph No. Washwood076
Description: View across sheds interior with office space separating the north and south shed ends
Site Location: E1/E2
Direction From: SE



Photograph No. Washwood077
Description: Interior north gable ends of sheds
Site Location: E1/E2
Direction From: SSW



Photograph No. Washwood078
Description: General view of office space interior showing internal glass divisions
Site Location: E1/E2
Direction From: NW



Photograph No. Washwood079
Description: Shed interior with spraying room
Site Location: F1
Direction From: NE



Photograph No. Washwood080
Description: Interior of spraying room
Site Location: F1
Direction From: E



Photograph No. Washwood081

Description: west end of shed interior showing west gable end and inspection trenches

Site Location: F1
Direction From: E



Photograph No. Washwood082

Description: Rail leading into the spraying room and pipe trench to north of spraying room

Site Location: F1
Direction From: W



Photograph No. Washwood083
Description: View across sheds interior
Site Location: F2-F5
Direction From: NE



Photograph No. Washwood084
Description: Interior east end timber gable
Site Location: F2-F5
Direction From: W



Photograph No. Washwood085

Description: Sheds interior showing how sheds end at different points at west end,
taken from within F5
Site Location: F3-F5
Direction From: ESE



Photograph No. Washwood086

Description: View across sheds interior
Site Location: F2-F5
Direction From: SW



Photograph No. Washwood087

Description: Brick pilasters, stanchions and blocked openings on interior south elevation

Site Location: F5

Direction From: NE



Photograph No. Washwood088

Description: Brick pilasters and varying stanchions separating sheds F4 and F5

Site Location: F4/F5

Direction From: SW



Photograph No. Washwoodo89

Description: Exterior west gable with rail leading in through roller door at south end of the elevation, with modern shed abutting to the south

Site Location: F5
Direction From: W



Photograph No. Washwoodo90

Description: Exterior east elevation of loco shed with single rail to the north separating to end the different sheds of building F

Site Location: Loco shed
Direction From: E



Photograph No. Washwood091

Description: Exterior west gable ends with rail tracks leading into their roller doors

Site Location: F2-F4

Direction From: W



Photograph No. Washwood092

Description: Exterior north elevation

Site Location: F5

Direction From: N



Photograph No. Washwood093
Description: Exterior north elevation
Site Location: F4
Direction From: NW



Photograph No. Washwood094
Description: F3 exterior west gable end and F4 exterior north elevation with small brick shed on exterior
Site Location: F2/F3
Direction From: NW



Photograph No. Washwood095

Description: Single rail splitting to lead into three different sheds with switch mechanism

Site Location: Rail

Direction From: W



Photograph No. Washwood096

Description: Exterior north elevation

Site Location: F2

Direction From: NW



Photograph No. Washwood097
Description: Exterior west metal paneled gable end
Site Location: F1
Direction From: W



Photograph No. Washwood098
Description: F1 exterior north elevation and G4 exterior west gable end
Site Location: F1/G4
Direction From: WNW



Photograph No. Washwood099
Description: west end of exterior north elevation
Site Location: G3
Direction From: NE



Photograph No. Washwood100
Description: Detail of roller door at west end of exterior north elevation
Site Location: G3
Direction From: N



Photograph No. Washwood101

Description: north and west elevations of later offices abutting north elevation of G3

Site Location: G5

Direction From: NW



Photograph No. Washwood102

Description: Area of brick offices at the centre of G5

Site Location: G5

Direction From: NNW



Photograph No. Washwood103
Description: Exterior north elevation of corrugated lean-to aisle
Site Location: G2
Direction From: NW



Photograph No. Washwood104
Description: Brick built storage units on exterior north of Building G
Site Location: G7?
Direction From: NW



Photograph No. Washwood105
Description: Exterior north and west elevations of corrugated lean-to aisle G1
Site Location: G1
Direction From: NW



Photograph No. Washwood106
Description: Exterior east gable ends
Site Location: G2-G4
Direction From: NE



Photograph No. Washwood107
Description: Exterior east gable ends of C1-C3 and exterior north elevation of C1
Site Location: C1-C3
Direction From: NE



Photograph No. Washwood108
Description: Exterior north elevation with blocked openings (small, door and arched),
brick pilasters and brick corbels
Site Location: C6a
Direction From: N



Photograph No. Washwood109

Description: Compressors on interior and internal south elevation with painted windows adjoining shed G4

Site Location: G6a

Direction From: NE



Photograph No. Washwood110

Description: Interior west gable end with compressor set in wall and doorway to G6c at west end of north elevation (to right of picture)

Site Location: G6a

Direction From: ENE



Photograph No. Washwood111

Description: Interior of liquid tank room with blocked opening on east wall leading to west end of shed G3
Site Location: G6b
Direction From: SW



Photograph No. Washwood112

Description: Jack arching
Site Location: G6b
Direction From: below WSW



Photograph No. Washwood113
Description: Interior of train washing room, west end
Site Location: G6c
Direction From: E



Photograph No. Washwood114
Description: Interior of train washing room, east end with roller door leading through to west gable end of G3
Site Location: G6c
Direction From: W



Photograph No. Washwood115

Description: Interior of plastic corrugated train washing room with roller door leading through to north end of G3 west gable end

Site Location: G6d

Direction From: W



Photograph No. Washwood116

Description: Exterior north elevation of G6c and exterior west elevation of G6e with staircase to north of G6d leading up to bridge access to first floor G6 rooms

Site Location: G6c/G6d

Direction From: WNW



Photograph No. Washwood117

Description: Exterior north elevation with modified brickwork on northwest corner

Site Location: G6c

Direction From: NNW



Photograph No. Washwood118

Description: Exterior south and east elevations

Site Location: Loco shed

Direction From: SE



Photograph No. Washwood119
Description: Exterior west elevation with blocked roller door
Site Location: Loco shed
Direction From: WSW



Photograph No. Washwood120
Description: Exterior north and west elevations with blocked openings and ventilation equipment on the roof
Site Location: Loco shed
Direction From: NW



Photograph No. Washwood121
Description: Exterior north and west elevations
Site Location: HX
Direction From: NW



Photograph No. Washwood122
Description: Exterior north and east elevations
Site Location: HX
Direction From: NE



Photograph No. Washwood123

Description: Exterior west elevations of H1 and H2, and exterior north elevation of H2

Site Location: H1/H2

Direction From: NW



Photograph No. Washwood124

Description: Exterior north and east elevations

Site Location: H1

Direction From: NE



Photograph No. Washwood125
Description: Exterior north elevation and modified brick building to the west
Site Location: No. 2 sub-station
Direction From: N



Photograph No. Washwood126
Description: Detail of metal doors
Site Location: No. 2 sub-station
Direction From: NW



Photograph No. Washwood127
Description: Shed interior
Site Location: H1
Direction From: E



Photograph No. Washwood128
Description: southeast interior corner of shed with stanchions and modern offices
Site Location: H1
Direction From: NW



Photograph No. Washwood129
Description: Switch board/circuit breaker
Site Location: H1
Direction From: SW



Photograph No. Washwood130
Description: Interior east gable end with travelling crane in front
Site Location: H1
Direction From: W



Photograph No. Washwood131
Description: View across south aisle
Site Location: H1
Direction From: E



Photograph No. Washwood132
Description: Detail of door and cabin office at centre of south wall
Site Location: H1
Direction From: N



Photograph No. Washwood133
Description: Shed interior
Site Location: H1
Direction From: W



Photograph No. Washwood134
Description: Reinforcing beam at southwest corner of shed interior
Site Location: H1
Direction From: NE



Photograph No. Washwood135
Description: Exterior north and west elevations of small sub-station at southwest corner of site
Site Location: Sub-station
Direction From: NW



Photograph No. Washwood136
Description: west end of exterior south elevation
Site Location: F5
Direction From: SE



Photograph No. Washwood137
Description: Central area of exterior south elevation
Site Location: F5
Direction From: SW



Photograph No. Washwood138
Description: Blocked doorway in central section of exterior south elevation
Site Location: F5
Direction From: SE



Photograph No. Washwood139
Description: east end of exterior south elevation
Site Location: F5
Direction From: SW



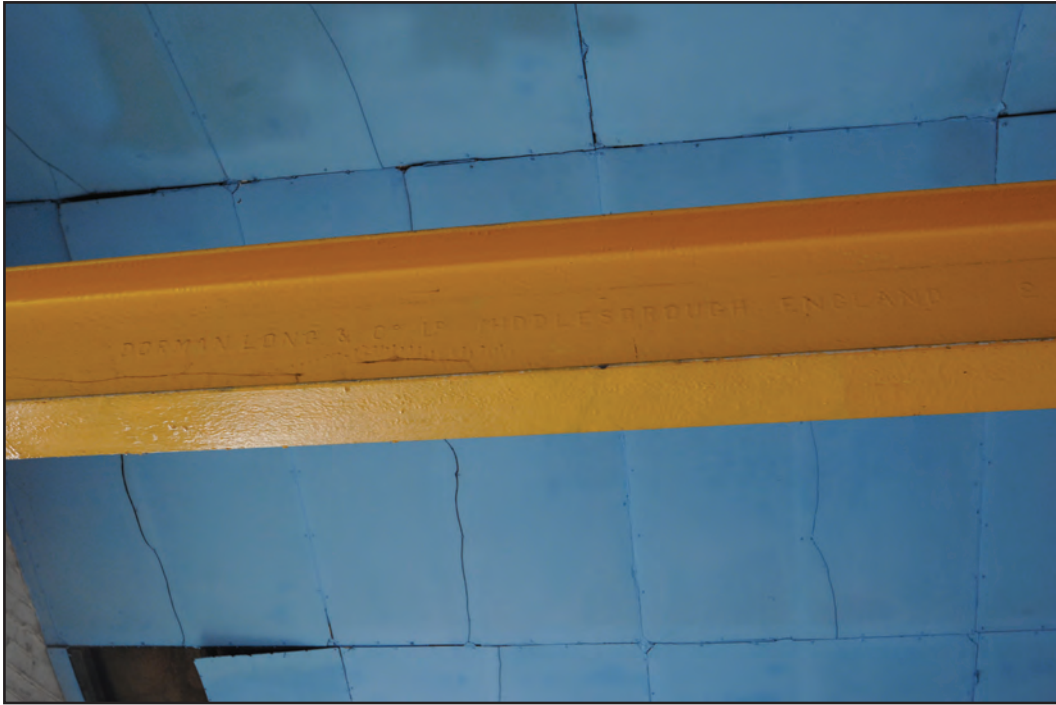
Photograph No. Washwood140
Description: Exterior south gable ends
Site Location: E1/E2
Direction From: S



Photograph No. Washwood141
Description: Interior of first floor winch room
Site Location: E3
Direction From: SW



Photograph No. Washwood142
Description: Interior of first floor winch room
Site Location: E3
Direction From: NE



Photograph No. Washwood143
Description: DORMAN LONG & CO LD MIDDLESBROUGH ENGLAND 2 foundry
mark on winch rail
Site Location: E3
Direction From: below E



Photograph No. Washwood144
Description: Exterior north elevation
Site Location: B1
Direction From: above NW



Photograph No. Washwood145
Description: Exterior east gable ends
Site Location: C6a/C6c
Direction From: NE



Photograph No. Washwood146
Description: Exterior east gable ends of C6a and C6c, exterior south elevation of C6b
and C6c
Site Location: C6a-C6c
Direction From: SE



Photograph No. Washwood147
Description: Exterior south elevation
Site Location: C6c
Direction From: SSE



Photograph No. Washwood148
Description: Exterior south elevation, east end
Site Location: C5
Direction From: SSE



Photograph No. Washwood149
Description: Exterior south elevation, central area
Site Location: C5
Direction From: SW



Photograph No. Washwood150
Description: Exterior south elevations including D10 gable end
Site Location: C5/D9/D10
Direction From: SE



Photograph No. Washwood151
Description: Exterior south elevation
Site Location: D9
Direction From: S



Photograph No. Washwood152
Description: Exterior south elevations including E1 and E2 gable ends
Site Location: D9/E1/E2/F5
Direction From: SE



Photograph No. Washwood153
Description: Exterior south gable ends
Site Location: E1/E2
Direction From: SSW



Photograph No. Washwood154
Description: Exterior west gable ends
Site Location: B1-B6
Direction From: NW



Photograph No. Washwood155
Description: Exterior west gable ends
Site Location: B5/B6
Direction From: W



Photograph No. Washwood156
Description: Exterior west gable ends
Site Location: B1-B4
Direction From: SW



Photograph No. Washwood157
Description: Exterior northwest corner with archway
Site Location: B1
Direction From: NW



Photograph No. Washwood158
Description: Exterior north elevation with varying windows and inserted openings
Site Location: B1
Direction From: N



Photograph No. Washwood159

Description: Central area of exterior north elevation with liquid store and brick lean-tos

Site Location: B1

Direction From: NW



Photograph No. Washwood160

Description: east end of exterior north elevation and exterior east gable end

Site Location: B1

Direction From: NE



Photograph No. Washwood161
Description: east end of exterior north elevation and exterior east gable end
Site Location: B1
Direction From: NE



Photograph No. Washwood162
Description: Exterior east gable ends
Site Location: B1-B3
Direction From: E



Photograph No. Washwood163
Description: Exterior east gable ends
Site Location: B3-B5
Direction From: NE



Photograph No. Washwood164
Description: north elevation of connecting section sheds A6/B6
Site Location: A6/B6
Direction From: N



Photograph No. Washwood165
Description: Exterior west gable ends
Site Location: A4/A5
Direction From: WNW



Photograph No. Washwood166
Description: Exterior west gable ends
Site Location: A1-A3
Direction From: WSW



Photograph No. Washwood167
Description: Exterior north elevation of offices at east end of A1
Site Location: A1
Direction From: NNE



Photograph No. Washwood168
Description: Shed interior
Site Location: A3
Direction From: W



Photograph No. Washwood169
Description: Shed interior
Site Location: A3
Direction From: E



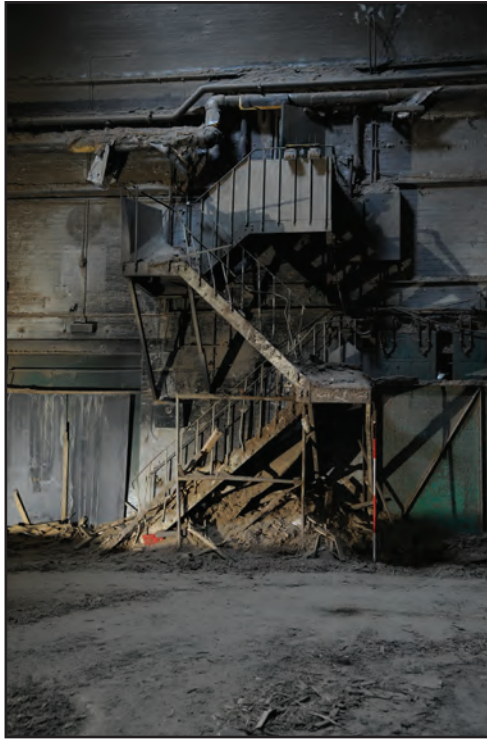
Photograph No. Washwood170
Description: Blocked opening at east end of north interior elevation, with additional small pilasters
Site Location: A3
Direction From: S



Photograph No. Washwood171
Description: Detail of cut off metal rail at west end of south wall
Site Location: A3
Direction From: NW



Photograph No. Washwood172
Description: Brick pilaster on north elevation with entry into A2
Site Location: A3
Direction From: SE



Photograph No. Washwood173

Description: Dilapidated stairway at east end of A2 giving access into upstairs office area

Site Location: A2
Direction From: W



Photograph No. Washwood174

Description: east interior elevation with stairs, metal doors and metal paneled wall

Site Location: A2
Direction From: W



Photograph No. Washwood175
Description: Shed interior
Site Location: A2
Direction From: E



Photograph No. Washwood176
Description: Brick floor with train and cart rails at west end of shed interior
Site Location: A2
Direction From: SW



Photograph No. Washwood177

Description: Shed interior with stanchions and open wall into A1 to north (left) and brick wall with pilasters to south

Site Location: A2
Direction From: W



Photograph No. Washwood178

Description: Shed interior with brick wall and pilasters on north acting as Building A exterior north wall

Site Location: A1
Direction From: WSW



Photograph No. Washwood179
Description: Concrete cast floor with brick infill at west end of shed interior
Site Location: A1
Direction From: W



Photograph No. Washwood180
Description: west end of north wall interior elevation with low and high bricked openings
Site Location: A1
Direction From: S



Photograph No. Washwood181
Description: Interior east gable end
Site Location: A1
Direction From: W



Photograph No. Washwood182
Description: View across shed interiors
Site Location: A1/A2
Direction From: NE



Photograph No. Washwood183
Description: View across sheds interior, taken from within A4
Site Location: A4/A5
Direction From: NE



Photograph No. Washwood184
Description: east interior gable ends
Site Location: A4/A5
Direction From: WNW



Photograph No. Washwood185
Description: Brick block with door at east end of south elevation for entry into A6
Site Location: A5
Direction From: N



Photograph No. Washwood186
Description: View across sheds interior, taken from within A5
Site Location: A5/A4
Direction From: SW



Photograph No. Washwood187
Description: Detail of southwest corner of shed interior with hoist equipment
Site Location: A4
Direction From: NE



Photograph No. Washwood188
Description: Stairs within office area
Site Location: A7
Direction From: ENE



Photograph No. Washwood189
Description: Typical office area
Site Location: A7
Direction From: NW



Photograph No. Washwood190
Description: Hatch within offices
Site Location: A7
Direction From: E



Photograph No. Washwood191
Description: Office entry and lobby area
Site Location: A7
Direction From: SW



Photograph No. Washwood192
Description: Blocked access from offices into A2 ground floor
Site Location: A7
Direction From: E



Photograph No. Washwood193

Description: Open office space on 1st floor with glass divided offices in background

Site Location: A7

Direction From: SW



Photograph No. Washwood194

Description: Shed interior

Site Location: B1

Direction From: W



Photograph No. Washwood195

Description: Interior north elevation with various windows and doors acting as exterior north wall of Building B

Site Location: B1

Direction From: SW



Photograph No. Washwood196

Description: Detail of two direction train rails crossing at E end of shed interior

Site Location: B1

Direction From: S



Photograph No. Washwood197
Description: General view of shed interior
Site Location: B1
Direction From: E



Photograph No. Washwood198
Description: General view of shed interior
Site Location: B2
Direction From: E



Photograph No. Washwood199
Description: Interior east gable end
Site Location: B2
Direction From: W



Photograph No. Washwood200
Description: Cast concrete floor with rails and drains at west end of interior
Site Location: B2
Direction From: SE



Photograph No. Washwood201
Description: Train rails at west end of shed interior
Site Location: B2
Direction From: E



Photograph No. Washwood202
Description: Train rails oriented east-west at south side of shed interior with modern concrete infill of inspection trench
Site Location: B2
Direction From: W



Photograph No. Washwood203
Description: Shed interior
Site Location: B3
Direction From: E



Photograph No. Washwood204
Description: Shed interior
Site Location: B3
Direction From: W



Photograph No. Washwood205
Description: Shed interior
Site Location: B4
Direction From: E



Photograph No. Washwood206
Description: Shed interior
Site Location: B4
Direction From: W



Photograph No. Washwood207
Description: Shed interior
Site Location: HX
Direction From: E



Photograph No. Washwood208
Description: Shed interior
Site Location: HX
Direction From: W



Photograph No. Washwood209
Description: Detail of train rail on cast concrete floor
Site Location: HX
Direction From: WNW



Photograph No. Washwood210
Description: Original stanchion and cut-off rail above in west corner of shed
Site Location: HX
Direction From: NW



Photograph No. Washwood211
Description: Large shed area interior
Site Location: H2
Direction From: E



Photograph No. Washwood212
Description: Large shed area interior and offices to the east
Site Location: H2
Direction From: W



Photograph No. Washwood213
Description: First floor office area
Site Location: H2
Direction From: NNE



Photograph No. Washwood214
Description: Small shed interior to the west
Site Location: H2
Direction From: E



Photograph No. Washwood215
Description: Small shed interior to the west
Site Location: H2
Direction From: W



Photograph No. Washwood216
Description: Combination of original and modern stanchions on south wall
Site Location: H2
Direction From: WNW



Photograph No. Washwood217
Description: General view of southwest area of site
Site Location: H/HX
Direction From: W



Photograph No. Washwood218
Description: General view of west area of site
Site Location: F/H/HX
Direction From: SW



Photograph No. Washwood219
Description: Train rails leading into the west end gables of Building F
Site Location: F
Direction From: W



Photograph No. Washwood220
Description: General view of relationship between Buildings B and H
Site Location: B/H
Direction From: W



Photograph No. Washwood221
Description: General view of relationship between Buildings B, E and F
Site Location: B/E/F
Direction From: S



Photograph No. Washwood222
Description: Exterior south elevation at west end
Site Location: B6
Direction From: SSW



Photograph No. Washwood223
Description: Possible air raid shelter with entry steps
Site Location: Air raid shelter
Direction From: SW



Photograph No. Washwood224
Description: Rail lines leading into west gable ends of Building B
Site Location: B
Direction From: WNW



Photograph No. Washwood225
Description: Relationship between Buildings A, B and C
Site Location: A/B/C
Direction From: W



Photograph No. Washwood226
Description: Relationship between Buildings A and B
Site Location: A/B
Direction From: N



Photograph No. Washwood227
Description: Exterior east gable ends (offices)
Site Location: A1/A2
Direction From: E



Photograph No. Washwood228
Description: Exterior east gable ends
Site Location: A1-A6
Direction From: NE



Photograph No. Washwood229
Description: Relationship between Buildings A and C
Site Location: A/C
Direction From: E



Photograph No. Washwood230
Description: Exterior east gable ends
Site Location: A3/A4
Direction From: ESE



Photograph No. Washwood231
Description: Exterior east gable ends
Site Location: A5/A6
Direction From: SE



Photograph No. Washwood232
Description: Exterior south elevation at east end
Site Location: A6
Direction From: ESE



Photograph No. Washwood233
Description: Pilasters on exterior south elevation
Site Location: A6
Direction From: E



Photograph No. Washwood234
Description: Ventilators in the centre of south exterior elevation
Site Location: A6
Direction From: SE



Photograph No. Washwood235
Description: Exterior south elevation with curved southwest corner
Site Location: Gatehouse
Direction From: SW



Photograph No. Washwood236
Description: Exterior north elevation
Site Location: Firehouse?
Direction From: NW



Photograph No. Washwood237
Description: View of relationship between buildings C and G, E gable ends
Site Location: G/C
Direction From: NE



Photograph No. Washwood238
Description: Exterior south and east elevations
Site Location: northwest building
Direction From: SE



Photograph No. Washwood239

Description: Extension at east end of C3 with additional small stanchions, corbel detail from earlier exterior elevation, and detail of steel rail end resting on pilaster at original building end

Site Location: C3

Direction From: NW



Photograph No. Washwood240

Description: Three different stanchions at east end of shed interior

Site Location: F5

Direction From: SW

Document no.: 1EW04-LMJ-EV-REP-NS03_NLo8-029001

Revision: C02

Appendix D: Sources Consulted

Type	Source	Information	Relevance	
Local Heritage	Railway Heritage Trust	No relevant information specific to the current site	-	
	Warwickshire County Records Office	CR 1590/ P1413. Birmingham, Washwood Heath: plan showing lands belonging to the City Gas Department, Electricity Board, the Canal Co. etc. (1934)	Not Relevant	
		QS/111/594	Additional lands at Kingsbury, Bromford Bridge, Washwood Heath and Wixford (and duplicate). 24th Nov 1913.	Not Relevant
		QS/111/564	Lands etc. at Washwood Heath (and duplicate) 29th Nov 1904.	Not Relevant
Birmingham City Archives	No plans or relevant documents identified.	-		
Historic Environment databases and documents	Historic environment records (HER)	Stoten, G (2005). Alstom Works, Washwood Heath Birmingham. Archaeological Desk Based Assessment. Cotswold Archaeology.	Relevant	
	Historic England Archives	Britain from above had 4 aerial photographs of the area, but only one show the works in the foreground.	-	

	Historic building grey-literature reports	Stoten, G (2005). Alstom Works, Washwood Heath Birmingham. Archaeological Desk Based Assessment. Cotswold Archaeology Pollington, M. and Gwilliam, P. (2018) Land of West Street Crewe Building Recording Lanpro. Archaeological Data Service had no information on the site.	Relevant Relevant
	Historic building journals and monographs	Building News and The Builder No relevant information to the site was found.	-
	Public and private collections	Midland Railway Society and only containing material relating to the Midland Railway centred on Derby.	Not relevant
	Railway archives, including those at the National Rail Museum	GEC/4/6/16. Corporate film produced for British Rail Network South East by Blackrod. Chapter 2 filmed inside Washwood Heath.	Not relevant
Historical documents	Architectural drawings, floor plans and elevations	National Archives: MR 1/1803/20 Warwickshire: Washwood Heath. Plan, with coloured, MS additions, of the National Shell Factory, Midland Works. Compass indicator.	Relevant
	First World War archives held at National Archives	No relevant information specific to the current site other than that noted above. Addition plans under MR 1/1803/20 were examined at the National archives but these related to shell sites around the country.	-

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	Contemporary publications, including Cammell Laird promotional information	Metro-Cammell Archive: 1962 Map - Metropolitan Cammell Carriage and Wagon Co Ltd, Midland Works	Relevant Relevant
	Published inventories e.g. Pevsner Warwickshire Architectural guide and Pevsner City Guide to Birmingham.	No relevant information specific to the current site	-
Cartographic and pictorial documents	Ordnance Survey maps, as detailed scale as possible	Ordnance Survey mapping of 1917 Warwickshire. Sheet VII.14. Ordnance Survey mapping of 1817 Warwickshire. Sheet XIV.2. Ordnance Survey mapping of 1925 Warwickshire. Sheet VII.14. Ordnance Survey mapping of 1825 Warwickshire. Sheet XIV.2. Ordnance Survey mapping of 1920 Warwickshire. Sheet LXIX.SW14. Ordnance Survey mapping of 1920 Warwickshire. Sheet XIV.NW. Ordnance Survey mapping of 1937 Warwickshire. Sheet VII.14. Ordnance Survey mapping of 1837 Warwickshire. Sheet XIV.2.	Relevant

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	Historic photographs	Some photographs of the site from the Britain from above website	Relevant
		Some photographs of the site are show on the urban exploration web site 28dayslater.co.uk @ https://www.28dayslater.co.uk/thread/s/the-metropolitan-cammell-carriage-and-wagon-co-midland-works-washwood-heath-sept-2018.114779/	Relevant
Remote sensing data	Aerial photographs held at relevant repositories	Francis frith.com no photographs of the site were identified. Birmingham History Forum had no images of the site. Warwickshire Archives had no images of the site. Birmingham City Library had no images of the site.	
	Existing measured survey or remote sensing	None Identified	-
	Records e.g. laser scans, previous building surveys	None Identified	-

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Revision: Co2

Secondary sources	Architectural history or buildings archaeology thematic studies	Birmingham railways in old photographs by Mike Hitchens had no images or information on the site A Century of Railways around Birmingham and the West Midlands volumes 1 and 2 by John Boynton no images or information on the site	
	Regional and National Research Assessments and Strategies	The Archaeology of the West Midlands A framework for research Kinchin-Smith, R. (2014). <i>National Heritage Plan NHPP 4B3: Transport and Communications</i> . London: RPS Historic England	Not relevant Relevant

Appendix E: Location Specific Written Scheme of Investigations

HS2 WPO29 – Historic Environment Works – Washwood Heath Depot and Saltley Trading Estate – Enabling Works North Contract

Location Specific Written Scheme of Investigation for Historic Building Recording Survey

Document no.: 1EW04-LMJ-EV-MST-NS03_NL08-029000

Revision	Author	Checked by	Approved by	Date	Reason for revision
P01	Diana Sproat	Melissa Melikian			
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1 Executive Summary

- 1.1.1 This Location-Specific Written Scheme of Investigation (LS-WSI) details the means by which a scheme of historic building recording survey will be delivered and resourced at two sites; one at Saltley Trading Estate and the other at Washwood Heath Depot, both to the north-east of the city of Birmingham. It also identifies the timescales and proposed programme for the works. This LS-WSI is based on the Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL09-029000), April 2018 and the Project Plan for Washwood Heath Depot (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL08-029000), April 2018. Both Project Plans design the works in response to specific HS2 objectives and the LS-WSI is the delivery vehicle, providing details of programme management, cost control, resourcing, Health and Safety and Reporting. The historic building recording survey at Saltley Trading Estate and Washwood Heath Depot is part of HS2 North Priority Package 29.
- 1.1.2 Production of this LS-WSI follows the Guidance as outlined in Technical Standard – Specification for Historic Environment Project Plans and Location Specific Written Schemes of Investigation (Doc No: HS2-HS2-EV-STD-000-000036) and Technical Standard – Specification for Historic Environment Investigations (Doc No: HS2-HS2-EV-STD-000-000035). Reference is also made to other guidance as specified in the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015). The structure of this LS-WSI follows the Technical Standard – Specification for Historic Environment Project Plans and Location Specific Written Schemes of Investigation (Doc No: HS2-HS2-EV-STD-000-000036, section 3). Other relevant guidance is noted throughout the remainder of this document.
- 1.1.3 The building recording addresses a group of undesignated buildings at both the former Saltley Railway Carriage & Wagon Works Site located on Dorset Road to the east of the existing railway main lines (centred on NGR 409491 288525; see figure 1, Appendix 15.1), and at the former Midland Railway Carriage & Wagon Works, located at Washwood Heath, to the south of the existing railway main lines and immediately north of Warren Street (centred on NGR 410436 289060; see figure 1, Appendix 15.2 see Figure 1, Appendix A).
- 1.1.4 The historic building recording is required to create an historical record of both sites prior to commencement of their demolition. The objective of the investigation is to gain information about the historical resource in order to support an assessment of its character, extent,

knowledge value, preservation and potential to contribute to Specific Objectives set out in the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015) (see below). The outcome of the investigation may be used to inform future decision-making on the requirement for further investigation at the Site, and a strategy for achieving it.

- 1.1.5 Specifically, and as outlined in Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL09-029000), April 2018) and the Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL08-029000), April 2018, the historic building recording programme aims to assess and record the character, extent and significance of both complexes of buildings. The recording programme aims to contribute to the following specific HERDS Knowledge Creation objectives, as outlined in Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015), section 6.6:

Saltley Trading Estate:

- KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.
- KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives.
- KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we recognize changing public perception of railway infrastructure and associated buildings over time?

Washwood Heath Depot:

- KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network.

- KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?
- KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives
- KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we recognize changing public perception of railway infrastructure and associated buildings over time?

1.1.6 The way the historic building recording survey aims to contribute to aforementioned KC's is outlined in the:

- Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo9-029000), prepared by DJV, April 2018), section 3.1.5, table 1
- Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo8-029000), prepared by DJV, April 2018, section 3.1.5, table 1

2 Site Location, Extent and Condition

2.1 Saltley Trading Estate

2.1.1 The Saltley Trading Estate Site comprises a number of undesignated industrial buildings in the Saltley area to the north-east of the city of Birmingham. It is located between Penine Way to the east, Dorset Way to the north and west and Pembroke Way to the south. There are presently three large undesignated buildings on the site which will be subject to historic building recording, which are all brick with corrugated roofs containing large skylights. They are formed of three or four long, linear gabled bays arranged in contiguous blocks to afford extensive areas of internal space. The buildings have been labelled A, B and C for the purposes of the survey (see Figures 1 and 2; Appendix 15.1).

2.1.4 It has not been possible to conduct a walkover survey of the Saltley Trading Estate Site prior to the production of this LS-WSI.

2.2 Washwood Heath Depot

2.2.1 The Washwood Heath Depot Site comprises a number of undesignated industrial buildings in the Washwood Heath area to the north-east of the city of Birmingham. It is located to the east side of the railway adjacent to Aston Church Road and to the south and south-east of an unnamed east/west road providing access to a number of other industrial units. To the east of the site is Common Lane and to the south are the rear gardens of the properties along Warren Road and Leigh Primary School. There are presently eight large undesignated buildings on the site which will be subject to historic building recording, which are all of brick and largely comprise a series of long, linear gabled bays arranged in continuous blocks to afford extensive use of internal space. The buildings have been labelled A- H for the purposes of the survey (see Figures 1 and 3; Appendix 15.2).

3 Overview of Project Plan

3.1.1 This LS-WSI addresses the Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo9-029000), April 2018 and the Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo8-029000), April 2018.

3.1.2 As outlined in section 4, both Project Plans define the scope of the historic building recording, outlines the aims of the surveys and how they will contribute to the specific objectives laid out in the GWSI: HERDS. It sets out in detail the methodology for the historic building recording and describes the proposed deliverables and reporting mechanisms. It should be referred to for detailed information on these matters (see Appendix 15.1 and Appendix 15.2).

4 Scheme Design Elements

4.1 Saltley Trading Estate

4.1.1 The historic building recording survey for the Saltley Trading Estate Site will be undertaken in

accordance with specific guidance produced by HS2, namely the Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037), the Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) and the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS; HS2-HS2-EV-STR-000-000015).

- 4.1.2 The historic building recording survey of the Saltley Trading Estate Site will comprise a Level 2 survey as defined by the Historic England 2016 (revised) publication Understanding Historic Buildings: A Guide to Good Recording Practice. This will provide a sufficient level of recording to both assess the character and use, and any changes thereof, of the buildings. It will comprise a photographic and written record of the buildings over their lifetime including the different built elements of the site and their immediate setting, accompanied by a provided site plan of the buildings. It will also enable an identification of any historically and architecturally significant features and will be preceded by a detailed level of archive research and map-regression.
- 4.1.3 The applicable methodologies and standards for these activities will be as follows:
- Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo9-029000), April 2018, Section 4 – see Appendix 15.1);
 - Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037);
 - Technical Standard: Specification for historic environment investigations (HS2-HS2 EV-STD-000-000035, Section 3);
 - Historic England (2016): Understanding Historic Buildings A Guide to Good Recording Practice; and
 - All other Technical Standards as outlined in Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035, Section 1.2).
- 4.1.4 Where relevant, the historic building recording survey will also reflect other best practice guidance, e.g.:
- Archaeology Data Service/Digital Antiquity guides to good practice.



- Chartered Institute for Archaeologists (2014) Code of Conduct.
- Chartered Institute for Archaeologists (2014) Standard and Guidance for the Recording of Standing Buildings or Structures
- Historic England (2006) Management of Research Projects in the Historic Environment.

4.2 Washwood Heath Depot

- 4.2.1 The historic building recording for the Washwood Heath Depot Site will be undertaken in accordance with specific guidance produced by HS2, namely the Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037), the Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) and the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS; HS2-HS2-EV-STR-000-000015).
- 4.2.2 The historic building recording survey of the Washwood Heath Depot Site will comprise a Level 2 survey as defined by the Historic England 2016 (revised) publication Understanding Historic Buildings: A Guide to Good Recording Practice. This will provide a sufficient level of recording to both assess the character and use, and any changes thereof, of the buildings. It will comprise a photographic and written record of the buildings over their lifetime including the different built elements of the site and their immediate setting accompanied by a provided site plan of the buildings. It will also enable an identification of any historically and architecturally significant features and will be preceded by a detailed element of archive research and map-regression.
- 4.2.3 The applicable methodologies and standards for these activities will be as follows:
- Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo8-029000), prepared by DJV, April 2018, Section 4 – see Appendix 15.2);
 - Technical Standard for the Recording of the Setting of Heritage assets (HS2-HS2-EV-STD-000-000037);
 - Technical Standard: Specification for historic environment investigations (HS2-HS2 EV-STD-000-000035, Section 3);



- Historic England (2016): Understanding Historic Buildings A Guide to Good Recording Practice; and
- All other Technical Standards as outlined in Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035, Section 1.2).

4.2.4 Where relevant, the historic building recording survey will also reflect other best practice guidance, e.g.:

- Archaeology Data Service/Digital Antiquity guides to good practice.
- Chartered Institute for Archaeologists (2014) Code of Conduct.
- Chartered Institute for Archaeologists (2014) Standard and Guidance for the Recording of Standing Buildings or Structures
- Historic England (2006) Management of research projects in the historic environment.

4.3.1 General

4.3.1.1 The works associated with the historic building recording will be as follows:

- Archival Research;
- Building Recording; and
- Reporting and Archiving.

5 Programme

5.1 Saltley Trading Estate

5.1.1 The proposed programme for the Saltley Trading Estate Site is given in the table below:

Table 2 Saltley Trading Estate Programme

Activity	Start date
Commencement of Archive Research	w/c 21 st May 2018
Commencement of on-site Photographic and Written Survey	w/c 21 st May 2018

Completion of on-site Photographic and Written Survey	w/c 28 th May 2018
Completion of Reporting	August 2018
Archiving	October 2018

5.1 Washwood Heath Depot

5.1.1 The proposed programme for the Washwood Heath Depot Site is given in the table below:

Table 3 Washwood Heath Depot Programme

Activity	Start date
Commencement of Archive Research	w/c 21 st May 2018
Commencement of on-site Photographic and Written Survey	w/c 21 st May 2018
Completion of on-site Photographic and Written Survey	w/c 28 th May 2018
Completion of Reporting	June 2018
Archiving	June 2018

6 Methodology

6.1.1 The historic building recording survey will be conducted according to the detailed methodology laid out in the Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo9-029000), April 2018 and the Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NLo8-029000), April 2018 (Appendix 15.1; Appendix 15.2). This covers the methodology for all parts of the investigation, including archive research (Section 4.3.1 – 4.3.2) and the on-site historic building recording survey (Section 4.3.3 – 4.3.4).

6.2.2 The following sections address wider issues of methodology and project delivery

6.2 Archive Research

6.2.1 Saltley Trading Estate

6.2.1.1 Prior to and during the on-site historic building recording survey, a number of archive sources will be consulted relating to the design, construction, use and alteration of the buildings over

time, including any documents relating to the carriage and wagon works. These may include architectural designs and drawings held in railway archives or the Cammell Laird archive, and documents which relate to its use as part of the war effort held by the National Archive. A detailed map regression will also be undertaken on all publicly accessible Ordnance Survey maps from the First edition to the present day. A more detailed outline of the sources that will be consulted are included in the Project Plan for Saltley Trading Estate (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL09-029000), April 2018 (Section 4.3.2, Table 2).

6.2.2 Washwood Heath Depot

6.2.2.1 Prior to and during the on-site historic building recording survey, a number of archive sources will be consulted relating to the design, construction, use and alteration of the buildings over time, including its use for the manufacture of munitions during the First World War. These may include architectural designs and drawings held in railway archives or the Cammell Laird archive, and documents which relate to its use as part of the war effort held by the National Archive. A detailed map regression will also be undertaken on all publicly accessible Ordnance Survey maps from the First edition to the present day. A more detailed outline of the sources that will be consulted are included in the Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL08-029000), April 2018 (Section 4.3.2, Table 2).

6.3 Details of Site Access

6.3.1 Saltley Trading Estate

6.3.1.1 Access to and the site will be pre-arranged by the Employer and parking on site will be as directed by the Employer's representative on site.

6.3.1.2 Mobile welfare facilities will be provided on site by the Contractor.

6.3.2 Washwood Heath Depot

6.3.1.1 Access to and the site will be pre-arranged by the Employer and parking on site will be as directed by the Employer's representative on site.

6.3.1.2 Mobile welfare facilities will be provided on site by the Contractor.

6.4 Photographic Record

6.4.1 The photographic record for both sites will be undertaken in colour digital using a digital SLR to a minimum 10 megapixel resolution in both JPG and RAW format. A tripod may be used in areas of poor light, as well as flash photography and a 2m or 1m ranging pole will be placed in all shots where access and health and safety allow for scale.

6.4.2 General views of the exterior of each building will be taken which will comprise both oblique views and head-on elevation views (as is possible within the constraints of the site). This will be accompanied by a detailed photographic record of specific elements such as windows, doors, blocked openings, architectural and structural detail, evidence for phasing and/or function, modern interventions and anything else pertinent to the historic record.

6.4.3 Internally, a general photographic record will be undertaken of each room or internal space within the buildings to sufficiently create good overall coverage of the space. As with the exterior, detailed photographs will also be undertaken of specific elements such as windows, doors, blocked openings, architectural and structural detail, evidence for phasing and/or function, modern interventions and anything else pertinent to the historic record.

6.4.4 A running register of photographs will be made on site, which will be included in the final report as an appendix.

6.5 Written Record

6.5.1 The photographic record will be accompanied by a written record of the exterior and interior of the buildings using AOC *pro forma* recording sheets which will be filled out for each building and internal room. Comment will be made on condition, construction and materials, architectural style and character, evidence for phasing, evidence for past industrial practices, modern interventions and anything else pertinent to the historic record.

6.6 Drawn Record

6.6.1 The interior and exterior will be inspected, and the written account will be accompanied by photographs and some drawing. No specific on-site measured survey record has been outlined in either Project Plan, however, the photographic and drawn record will be tied into a general site plan, which will be supplied by the Client. Also, any archive plans discovered will be included and consulted to provide an overall interpretation of the internal spaces and the flow of industrial processes through time.

6.7 Reporting

6.7.1 Upon completion of the stages of the on-site recording at both the Saltley Trading Estate and the Washwood Heath Depot, an historic building recording survey report will be produced for each site. This will include:

- A summary of the background to the development and principal findings, including both Specific Objectives addressed;



- Site location map accompanied by a description of the building's location and NGR reference of each building and a description of the topography of the site;
- Detail of the site background, site location and development background;
- A detailed methodology of the archive research, on-site work and post on-site work (i.e. reporting);
- Historical background to put the site into context, to include an overview and analysis of all archive information examined;
- Historical map representations and archive drawings that are referenced in the text;
- An architectural description of the buildings;
- A copy of all photographs taken used as plates to illustrate the architectural descriptions fully cross-referenced with the photographic record;
- Relevant site plans to provide context to the architectural descriptions;
- A discussion bringing together the findings of the historical background and on-site investigations, including a consideration of the buildings in their wider context;
- An evaluation of the methodology employed and the results obtained (ie, a confidence rating);
- Conclusions;
- Recommendations, i.e., publication and dissemination proposals;
- All references listed, including bibliographic references, cartographic references and archive sources;
- Appendices, including:
 - Written Photographic Register;
 - Any illustrations, which will include site plans with scale and grid co-ordinates;
 - Site plans showing extent of features of setting;
 - Site plans showing areas of building identified for salvage if relevant.

6.7.2 Specifically, the Saltley Business Park Report will include detail on;



- the use and character of each building, and its component parts, as examples of the development of the railways and rolling stock in the 20th century and the influence of attitudes, materials or production methods on the movement of people;
- identifying and explaining any elements of particular architectural or historic significance;
- explaining the 'process flow' for the site as it developed over time;
- the significance of the assets and their setting;
- the extent of building remains;
- if appropriate and feasible, measures for the conservation, repair or management of identified significant assets and their setting;
- the provisions to be made during demolition, where applicable, for the salvage of material of architectural or historic significance which has the potential for reuse;
- a lasting record of the buildings and their setting, including an assessment of the impact of the Saltley Works on its immediate townscape; and
- how the results contribute to the delivery of GWSI: HERDS Specific Objectives as specified in Section 3.2 of the Project Plan.

6.7.3 Specifically, the Washwood Heath Depot Report will include detail on;

- the use and character of each building, and its component parts, as examples of the development of the railways and rolling stock in the 20th century and the influence of attitudes, materials or production methods on the movement of people;
- identifying and explaining any elements of particular architectural or historic significance;
- the role of the Works as a National Shell Factory in the First World War and the extent to which adaptations or its legacy impacted on the buildings and their use;
- explaining the 'process flow' for the site as it developed over time;
- the significance of the assets and their setting;
- the extent of building remains;
- if appropriate and feasible, measures for the conservation, repair or management of identified significant assets and their setting;

- the provisions to be made during demolition, where applicable, for the salvage of material of architectural or historic significance which has the potential for reuse;
- the buildings and their setting, including an assessment of the impact of the Midland Works on its immediate townscape; and
- how the results contribute to the delivery of GWSI: HERDS Specific Objectives as specified in Section 3.2 of the Project Plan.

6.8 Main Work Packages

- 6.8.1 The historic building recording survey for both sites will be undertaken between 21st May – 25th May 2018.

7 Delivery Interfaces

- 7.1.1 The Archaeological Contractor will have direct communication either with the Employer or with the Project Manager appointed by the Employer. The historic building recording survey will be overseen and quality-assessed by the Archaeological Contractor's senior management and will be project managed by the Archaeological Contractor's Project Manager. The historic building recording survey will be supervised by a suitably qualified and experienced Project Officer appointed by the Archaeological Contractor. All parties will follow the Employer's protocols for Intra- and Inter- project communication.
- 7.1.2 Connect Archaeology have ISO 9001:2008 accreditation and the interface, consultation and communication will be undertaken in accordance with these protocols.

8 Health, Safety and Environment

- 8.1.1 The Archaeological Contractor will undertake the works in accordance with the Employer's route wide health and safety requirements and, if applicable, the Contractor's health and safety requirements for specific locations.
- 8.1.2 The Archaeological Contractor will be solely responsible for Health and Safety during the historic building recording survey, and a Risk Assessment and Method Statement (RAMS) for the historic building recording survey has been produced (see Appendix 15.3). All work will also

be undertaken in accordance with the Archaeological Contractor's Health and Safety Policy (Connect Archaeology 2017). Details of the Contractor's design, programme and Health and Safety policy has been received (IMS15.1.1).

- 8.1.3 All site staff will be fully inducted and will read and sign the RAMS before commencing work on site.

8.2 Site access

- 8.2.1 Specific risks have been identified regarding the vacant state of the industrial buildings on both Sites (see the RAMS, Appendix 15.3). As a result, two people will be on site at all times and be working alongside each other. A reconnaissance of each building will be made prior to commencing with the recording so that necessary escape routes and traverse through the building can be established.

8.3 Site safety and security

- 8.3.1 The buildings for both sites are located on industrial land which is some distance from residential areas. There are no public footpaths present across either site. The RAMS outlines the procedures to be followed if members of the public enter the site.

8.4 Local community, general public, neighbouring properties and businesses

- 8.4.1 It is not anticipated that the historic buildings surveys for both sites will cause significant disruption to the local community or neighbouring properties and business, the site is a remote photographic and written survey and lies some distance from residential areas and public footpaths.
- 8.4.1 Health and Safety procedures will be in place to minimise the risk to any member of the public who enters either site during the historic building recording survey (see the RAMS, Appendix 15.3)

9 Information Management

- 9.1.1 GIS deliverables will be provided in accordance with the Employer's Cultural Heritage GIS Specification (Doc No: HS2-HS2-GI-SPE-000-000004). CAD files will be GIS compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables must be supplied in GIS format.



- 9.1.2 Mapping and spatial data deliverables will conform to the Employer’s Cultural Heritage GIS Standard (Doc No: HS2-HS2-GI-STD-000-000010) and other associated referenced documents.
- 9.1.3 The Employer’s standard template for reporting as set out in Technical Standard: Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035, Section 4.4) will be followed.

10 Site Monitoring and engagement

- 10.1.1 The Archaeological Contractor will provide weekly written progress reports to the Employer or the Employer’s Project Manager.
- 10.1.2 If appropriate, the Employer’s Project Manager will inform the Council Archaeologist at Birmingham City Council that the historic building recording survey will take place at least one week in advance of the commencement of fieldwork.
- 10.1.3 The Employer’s Project Manager will arrange and convene monitoring site visits by external consultees, as appropriate. These may include:
- Historic England;
 - Council Archaeologist at Birmingham City Council;
 - Relevant local interest groups; and
 - Relevant and acknowledged specialists in such fields as historic building recording survey and industrial archaeology.
- 10.1.4 Communication and engagement with third parties will use the Employer’s communication protocols set out in the Employer’s Community Relations Strategy.

11 Quality Assurance Processes

- 11.1.1 Connect Archaeology are ISO 9001:2008 Quality Assured and all of their work practices will



adhere to these independently qualified standards.

- 11.1.2 All project staff employed by the Archaeological Contractor will be suitably qualified, experienced and trained to undertake the work in hand.
- 11.1.3 Fieldwork will be monitored by the Archaeological Contractor’s Project Manager responsible for the project, under the general supervision of the Archaeological Contractor’s senior management.
- 11.1.4 The historic building recording survey report will be checked and reviewed by a suitably qualified and experienced Project Manager or a member of the Senior Management Team before it is issued to the Employer. On receipt of comments, the final report will be checked and reviewed again prior to its reissue.



12 Fieldwork Sign-off Sheet

Historic Environment Fieldwork Sign-off Sheet			
Work Package Reference	29		
Historic Environment	Historic building recording survey		
Investigation Type			
Contractor			
Fieldwork conducted by		Dates	
(site director)			
Summary of results			
<p>Document References</p> <p>Project Plan: 1EW04-LMJ-EV-PLN-NS03_NL09-029000</p> <p>LS-WSI (this document): 1EW04-LMJ-EV-MST-NS03_NL08-029000</p>			



Compiled by	Name	Date	Signature
Checked by	Name	Date	Signature
Approved by	Name	Date	Signature

13 References and Glossary of Terms

13.1.1 The following terms have been used in this report:

- **Archaeological Contractor** – the organisation undertaking the Trial Trenching on behalf of the Employer.
- **Contractor** – the early works contractor (EWC) or main works construction contractor (MWCC) responsible for the location within which historic environment works are undertaken; the historic environment/archaeological contractor is part of the Contractor’s supply chain.
- **Employer** – the body responsible for the terms and conditions, policies, procedures and payments.
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combined historic environment investigation programme of assessment, evaluation and investigation.
- **Project Manager** – acts as administrator of the contract, handling certification,

compensation events etc., with an obligation to act fairly and impartially as an agent of the Employer.

- **Project Plans** – specification document for each specific package of activity (e.g. a survey, desk based assessment, excavation, recording project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget.
- **Works** – the specific historic environment assessment, evaluation or investigation works at each location.

13.1.2 The following documents are referred to:

Title	Reference
HS2 Phase One Environmental Statement and Supplementary Environmental Statements	CH-001-017, ES 3.5.2.17.4 CH002-017, ES 3.5.2.17.5 CH003-017, ES 3.5.2.17.6
CFA26 Washwood Heath to Curzon Street	CH003-017, ES 3.5.2.17.7
Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
Cultural Heritage GIS Standard	HS2-HS2-GI-STD-000-000010
Technical Standard – Temporary Works	HS2-HS2-CV-STD-000-000005
Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy	HS2-HS2-EV-STR-000-000015
Technical Standard - Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
Technical Standard: Historic Environment Physical Archive Procedure	HS2-HS2-EV-STD-000-000039
Technical Standard: Historic Environment Digital Data Management and Archiving Procedure	HS2-HS2-EV-STD-000-000040



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Revision: C02

Project Plan for Saltley Trading Estate	1EW04-LMJ-EV-PLN-NS03_NLo9-029000
Project Plan for Washwood Heath	1EW04-LMJ-EV-PLN-NS03_NLo8-029000
Contractors' Environmental Management Plan	IMS 15.3.1
Contractor's or Employers Community Relations Strategy	IMS 11.1.1
Employer's protocols for Intra- and Inter-project Communication	IMS 12.1.1
Contractor's Health and Safety Policy	IMS 15.1.1
Connect Archaeology 2017 – Health and Safety Policy	
Heritage England 2016 Understanding Historic Buildings: A Guide to Good Recording Practice.	



14 Figures

Table 3 Figures

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Figure 2 Saltley Trading Estate Detailed Site Plan	See p.22 of Project Plan (1D037-EDP-EV-REP-030-000019)
Figure 3 Washwood heath Depot Detailed Site Plan	See p.23 of Project Plan (1D037-EDP-EV-REP-030-000019)



15 Appendix

15.1 HS2 WP 029 Historic Environment Works – Saltley Trading Estate Depot – Enabling Works North Contract Project Plan for Historic Building Recording

HS2 WP 029 Historic Environment Works – Washwood Heath Depot – Enabling Works North Contract

Project Plan for Historic Building Recording

Document no.: 1EW04-LMJ-EV-PLN-NS03_NL08-029000

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1 Executive Summary

- 1.1.1 This High Speed 2 (HS2) North Section Phase One 'Project Plan' details the proposed methodologies, techniques and outcomes for the historic building recording of Washwood Heath Depot, Washwood, Birmingham (otherwise known as the Midland Works). The building recording addresses 9 ranges of buildings which form part of an associated group, on a site immediately north of Warren Road and on the southern side of the former sidings of the current railway. In addition to the buildings, their setting is also to be recorded.
- 1.1.2 The site is scheduled for demolition in mid-2018, as part of the enabling works programme for the HS2 project in the Birmingham area. Building recording of Washwood Heath Depot is required to assess and record the function, historic character and significance of the former carriage works at Washwood Heath.
- 1.1.3 The purpose of this Project Plan is to:
- define the scope of the building recording;
 - outline the aims of the recording and how it will contribute to the specific objectives of the GWSI: HERDS;
 - describe the methodology to be employed; and set out the proposed deliverables and reporting mechanisms.
- 1.1.4 The GWSI: HERDS Specific Objectives guiding the Project Plan are below:
- KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network
 - KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?
 - KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives
 - KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we



recognise changing public perceptions of railway infrastructure and associated buildings over time?

2 Location and Site Background

2.1 Baseline

- 2.1.1 This Project Plan has been prepared in accordance with guidelines set out in HS2 Technical Standard - Specification for historic environment project plans and location specific written schemes of investigation (HS2-HS2-EV-STD-000-000036).
- 2.1.2 The building recording addresses a group of undesignated buildings at the former Midland Railway Carriage & Waggon Works, located at Washwood Heath, to the south of the existing railway main lines and immediately north of Warren Street (see Figure 1, Appendix A).
- 2.1.3 The site comprises an extensive complex of associated industrial buildings within a well-defined boundary formed to the south by terraced housing and school buildings of late 19th and early 20th century date, and to the north by the area formerly comprising Washwood Heath Sidings.
- 2.1.4 The buildings are of brick and largely comprise a series of units of long, linear gabled bays arranged in contiguous blocks to afford extensive areas of internal space. The majority of the structures are thought to have been constructed in around 1910 by the Midland Railway Carriage & Wagon Company, who bought the 51-acre former allotment site in 1907 (Plate 1 in Appendix B) in order to expand a successful waggon and carriagework business that had been established at Saltley Works, on nearby Landor Street.

2.2 Site Conditions

- 2.2.1 By 1912 the Works at Washwood were fully operational. However, Ordnance Survey mapping published in 1916, based on survey data of 1913, shows a 'blank' outline of the site with no details of any buildings, or its layout and use (Plate 2 in Appendix B). This is due to the carriage works, in common with around 50 other established industrial works in well-connected towns across the midlands and northern Britain, being used as a National Shell Factory¹ from

¹ Prior to the First World War, only a small number of state-owned ordnance sites were involved in the production of munitions. From 1915, as a means of meeting demand for small ammunition shells, local Munitions Committees organised themselves throughout the country to increase production. These committees generally represented the smaller engineering firms and



February 1916, employing up to 2,400 local men and women in the production of small shell munitions at the site.

- 2.2.2 Mapping published in 1920, shortly after the war, was also based on the 1913 survey (Figure 3 in Appendix B). This fills in the missing blanks and provides a detailed layout of the works, largely in its current form, comprising six separate structures on an east-west alignment and accessed by railway tracks from Washwood Heath Sidings off the Birmingham & Derby Line. Like the nearby Saltley Works, the Midland Works manufactured, maintained and designed rolling stock, which required much less heavy engineering work than building engines and locomotives. However, it was still an extensive process requiring a variety of buildings to accommodate different processes. These are likely to have included timber drying sheds, a trimming shop, smithy, wheel-shops, fitting and machine shops, and a paint shop where the final coachwork was added.
- 2.2.3 In 1919, Cammell Laird Ltd began the manufacture of rolling stock in Nottingham and, along with this new venture, obtained a controlling interest the Midland Works at Washwood Heath. Alongside the Vickers-owned Works at nearby Saltley, production at the site was very successful and in 1929 Vickers and Cammell Laird merged their rolling stock interests to form the Metropolitan-Cammell Carriage and Wagon Co Ltd, after which the Washwood Works became known as the Metro-Cammell Midland Works to distinguish it from those at Saltley.
- 2.2.4 Map evidence suggests that there was some change to the northern buildings by the 1930s, which may correspond with these changes in ownership, with the introduction of a staggered entrance for each bay to the west and the possible incorporation of the two smaller buildings at the north into a larger building. By the 1950s the narrow space between the northern buildings housed an overhead travelling crane and the southern block was divided by surface traverser – later described as electric traverser.
- 2.2.5 In 1962 the Saltley Works closed down and all manufacturing was moved to the Midland Works. The Washwood site remained operational until the early 21st century, when cheaper competition from abroad and the later restructuring of British Rail into privatised franchises led to the decline of Metro-Cammell Laird. In 1989 the company was sold to GEC Alstom. The Midland Works closed in 2004 after almost 100 years of production, with the last trains to be

established ordnance factories, including National Shell Factories, in existing buildings such as railway workshops, textile mills and tramway depots.

built at the Washwood Heath plant being the Class 390 "Pendolino" tilting trains for the West Coast Main Line modernisation.

- 2.2.6 Following closure of the works, the units have been let as industrial units, often with piecemeal and impermanent subdivision internally. Whilst the roof line of long linear units remains relatively unchanged, aerial photographic images show some infilling of spaces, particularly in the areas of overhead cranes/travellers, and may indicate more significant alterations to blocks D & E (Plate 4 in Appendix B).
- 2.2.7 The use and 'process flow' relationship between the buildings on the site is currently unknown, but is likely to have been adapted over time. In particular the site was built at the cusp of technological change: prior to WW1 carriages were of all-timber construction and this was eventually phased into steel following a series of accidents with fire.
- 2.2.8 An archaeological desk-based assessment of the site (EBM626) (Figure 3 in Appendix A) was carried out in 2005 to inform proposals for the demolition of buildings and redevelopment of the site. At this time, the value of the buildings was considered to be low, and suggested mitigation comprised an independent assessment of the buildings by an expert.
- 2.2.9 The site is identified and described in the HS2 Phase One Environmental Statement (ES). Here it is referred to as "Former Washwood Heath Depot" (WCS003), and it is defined as being of 'low' value. The Phase One ES reports that the asset is entirely within the area of land required for the construction of Phase One and will be demolished; this is defined as a moderate adverse effect. Other than limited desk-based assessment to inform this Project Plan, no significant further historic environment assessment work relating specifically to this heritage asset has been carried out subsequent to the Phase One ES.
- 2.2.10 The HS2 Phase One ES identifies the associated sites of the Saltley and Washwood Heath carriageways, both of which retain earlier structures and will be affected by the works, as characteristic of the 19th century industrialisation and the development of areas to the east of Birmingham due to their proximity to the railway lines.
- 2.2.11 Construction of Phase One North will result in the demolition of the site, to facilitate the construction of the HS2 Washwood Heath Retained Cut.

3 Aims and specific objectives

- 3.1.1 The aim of this Project Plan is to:
- define the scope of the building recording;

- outline the aims of the recording and how it will contribute to the specific objectives of the GWSI: HERDS;
- describe the methodology to be employed; and set out the proposed deliverables and reporting mechanisms.

3.1.2 All historic environment work on HS2 is guided by the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) (Ref HS2-HS2-EV-STR-000-000015) and the Technical Standard specification for historic environment investigations (HS2-HS2-EV-STD-000-000035). Its purpose is to establish the objectives and mechanisms for designing and carrying out all historic environment related investigations, so that the work has specific aims, rather than an approach of simply mitigating impacts in order to collect information.

3.1.3 The aim of the historic building recording is to assess and record the character, extent and significance of the former Midland Works at Washwood Heath (WCS003). All of the buildings will be demolished to ground level prior to commencement of civil works at Washwood Heath retained cut. The historic building recording will investigate and record each of the buildings marked A-H on Figure 4 in Appendix A, with particular consideration to be given to:

- The use and character of each building, and its component parts, as examples of the development of the railways and rolling stock in the 20th century and the influence of attitudes, materials or production methods on the movement of people;
- Identifying and explaining any elements of particular architectural or historic significance;
- the role of the Works as a National Shell Factory in the First World War and the extent to which adaptations or its legacy impacted on the buildings and their use
- Explaining the 'process flow' for the site as it developed over time.

3.1.4 Further aims of the building recording are to:

- Search and collate archival sources relating to the design, construction, use and alteration of the buildings over time, including its use for the manufacture of munitions in the First World War
- record the extent and character of the different elements of the site, assess the extent and completeness of building remains and any features of significance;
- develop a process flow to explain the manufacturing processes undertaken on the site



and how the buildings were impacted or adapted through technological and material change

- assess the significance of the assets and their setting;
- assess the extent of building remains;
- suggest measures, if appropriate and feasible, for the conservation, repair or management of identified significant assets and their setting;
- suggest provisions to be made during demolition, where applicable, for the salvage of material of architectural or historic significance which has the potential for reuse;
- compile a lasting record of the buildings and their setting, including an assessment of the impact of the Midland Works on its immediate townscape; and
- contribute to the delivery of GWSI: HERDS Specific Objectives as specified in Section 3.2.

Contribution to GWSI: HERDS Objectives

3.1.5 Through delivery of the works set out in Section 4 and through addressing the aims set out in 3.1.1 the building recording will create knowledge and outputs that would contribute to the following specific objectives in the following ways:

Table 1 GWSI: HERDS Specific Objectives and historic building recording strategy aims

GWSI: HERDS Specific Objective	Comment	Historic building recording strategy aim
KC43: Investigate the link between the development of the railways and broader changes in the historic landscape, such as urban settlement expansion and the decline of the canal network	The Midland Works was part of a wider development of sites specialising in the manufacture of carriages in the Birmingham area.	The building recording should help characterise the site and allow comparisons to be made with the siting and amenities of other carriage works in the area, as well as developing a better understanding of the role and impact of the Midland Works in the development of the townscape and layout of Washwood Heath settlement.
KC45: The conflicts of the 20th century define the history of modern Britain and the world: how can we achieve a greater understanding of the significance of sites associated with conflict to local communities along the route?	Around 50 established factories and industrial buildings were used in the First World War as part of a network of National Shell Factories.	It is anticipated that building recording at Washwood should help more closely define the role of the site, its staff and local community in the conflict. It should also help develop a greater understanding of any adaptations that were made at the site to accommodate social or working



GWSI: HERDS Specific Objective	Comment	Historic building recording strategy aim
		arrangements that were part of the war effort.
KC48: Methods of using digital technology and social media to engage with public, communities and volunteers should be explored in a manner that enables parties to contribute to research and interpretation as well as enabling easy access to knowledge and ultimately archives	The Midland Works has played an important role in the lives of the community of Washwood Heath and Saltley for over a century.	The building recording should help establish a sound basis for further engagement with local people and former employees as part of additional research (to be dealt with under a separate Project Plan), that will capture important oral historical evidence for the use of the site, and its relationship with the local community in the past and into the future.
KC54: Identify key changes in the technology of railway infrastructure and how these changes influenced the distribution of goods or the movement of people. Can we recognise changing public perceptions of railway infrastructure and associated buildings over time?	The Midland Works are a good example of a well preserved 20th century waggon and carriage works which appear largely unaltered since their construction.	Prior to the removal of these assets, it is anticipated that building recording will provide an opportunity to assess their character and record their significance. To date, railway and technology historians have strongly focussed on the development and production of engines and very little research has been undertaken into the manufacture of carriages and wagons. This work should help develop a better understanding of this important aspect of railway infrastructure by focussing on a purpose-built site for the manufacture of carriages for goods and people.

4 Scope and Methodology

4.1 Introduction

4.1.1 The building recording will be undertaken in accordance with specific guidance produced by HS2, namely the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035) and the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) (HS2-HS2-EV-STR-000-000015).

4.1.2 The Contractor will comply with the process set out in the Heritage Consent Strategy (HS2-HS2-EV-STR-000-000008).

4.2 Location Specific Written Scheme of Investigation

4.2.1 A Location Specific Written Scheme of Investigation (LS-WSI) will be produced. This will provide the detailed method of investigation, including survey area, access arrangements, welfare, accommodation, site safety, RAMS, etc. The LS-WSI will be approved by HS2 prior to starting work.

4.3 Historic building recording

4.3.1 Tasks and activities that will be undertaken include:

- Archival research, to identify and examine documents relating to the carriage and waggon works, such as architectural designs and drawings held in railway archives or the Cammell Laird archive, and documents which relate to its use as part of the war effort, held by the National Archive;
- An historic map regression exercise, identifying any changes to the buildings, how the site developed over time, and its relationship with the surrounding railway and transportation infrastructure;
- A site walkover survey, both to inform a written record description of the interior and exterior of the buildings and their immediate setting, and also to take photographs of the interiors, exteriors and setting of the buildings on the site;
- A written description of each building, and an account of its character, use, adaptation or alteration, identifying any key drivers for changes (if relevant) and how, as part of the manufacturing process, it related to other buildings on the site;
- A photographic record to accompany the written description;
- Identification of the significance of the different built elements of the site, including recommendations for the salvage of any features if appropriate; and
- A record of the building within its immediate setting

4.3.2 The building recording will be informed by consulting the following sources:

- current engineering detailed designs and construction information;
- Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) (HS2-HS2-EV-STR-000-000015);
- HS2 Phase One Environmental Statement and Supplementary Environmental



Statements (HS2-HS2-EV-STD-000-000036);

- the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035);
- the Technical Standard: Recording of the Setting of Heritage Assets (HS2-HS2-EV-STD-000-000037); and
- Sources listed in Table 2 below.

Table 2 List of Sources

<p>Local heritage</p>	<ul style="list-style-type: none"> • Birmingham City Council Conservation officer • Historic England Principal Inspector of Historic Buildings • Railway Heritage Trust • Birmingham City Archives
<p>Historic Environment databases and documents</p>	<ul style="list-style-type: none"> • Historic environment records • Historic England Archives • Historic building survey data • Historic building grey-literature reports • Historic building journals and monographs • Public and private collections • National Rail Museum
<p>Historical documents</p>	<ul style="list-style-type: none"> • Architectural drawings, floor plans and elevations • Railway archives, including those at the National Rail Museum • First World War archives held at National Archives • Contemporary publications, including Cammell Laird promotional information • Published inventories e.g. Pevsner
<p>Cartographic and pictorial documents</p>	<ul style="list-style-type: none"> • Ordnance Survey maps, as detailed scale as possible



	<ul style="list-style-type: none"> • Building floor plans and elevation drawings • Historic photographs
Remote sensing data	<ul style="list-style-type: none"> • Aerial photographs held at relevant repositories • Existing measured survey or remote sensing records e.g. laser scans, previous building surveys
Secondary sources	<ul style="list-style-type: none"> • Architectural history or buildings archaeology thematic studies • Regional and National Research Assessments and Strategies

4.3.3 The building recording will comprise a Level 2 survey as defined in Understanding Historic Buildings: A guide to good recording practice (Historic England, 2016). This will provide a sufficient level of recording to both assess the character and use, and any changes thereof, of the buildings over their lifetime, including a photographic record of all of the different built elements of the site and their immediate setting. It will also enable an identification of any historically or architecturally significant features. This level of recording and its specification, as set out in section 5 of the Historic England document, is summarised here in Table 3:

Table 3: Historic England levels of recording for historic building assessment works

Recording Level	Scope	Description
Level 2	Descriptive record	A higher level of descriptive survey when further works are not envisaged. The interior and exterior will be inspected, and the written account will be accompanied by photographs and some drawing. The survey will enable a general statement of significance to be made.

4.3.4 The recording of the setting of Washwood Heath will be undertaken in accordance with specific guidance in the Technical Standard for the Recording of the Setting of Designated Heritage Assets (HS2-HS2-EV-STD-000-000037). The recording of the setting will comprise a 'Simple' level of recording, which will be sufficient to place the structure within its wider railway context. This will comprise:

- Photography;
- Written analysis;



- Mapping visual aspects.

5 Post-investigation reporting and archiving

5.1.1 A single building survey report will be produced with the following structure:

- Introduction;
- Summary of project's background (including Specific Objectives addressed);
- Description and illustration of the building location, including of its setting;
- Previous work(s) relevant to the building recording (e.g. DBA, DDBA, previous surveys);
- Topography of the site;
- Specific Objectives and aims;
- Methodology of site-based and off-site (reporting) work, including of recording setting;
- Results and observations including quantitative report, accompanied by illustrations (including any constraints on site);
- Assessment and interpretation of results against original expectations and Specific Objectives;
- Consideration of the results and conclusions within their wider context;
- Evaluation of the methodology employed and the results obtained (i.e. a confidence rating);
- Publication and disseminations proposals (in addition to survey report);
- Archive deposition;
- Bibliography;
- Appendices, including:
 - Illustrations, including location plans with scale and grid co-ordinates;



- A photographic record of the building and its setting.

5.1.2 The following figures will accompany the survey results and interpretation:

- General location plan;
- Engineering design;
- Cartographic, pictorial and image data;
- • Plans or drawings showing extent and features of setting
- • Survey drawings showing areas of building identified for salvage etc.

6 Dissemination

6.1.1 The project archive and finds will be deposited with the appropriate museums archive, as identified in the LS-WSI.

6.1.2 One digital and three hard copies of the report will be submitted to the relevant Historic Environment Record (HER) and the National Record for the Historic Environment (NRHE) in Swindon.

6.1.3 A digital copy of the report will be submitted to the Archaeological Data Service (ADS).

6.1.4 Significant discoveries will be reported in summary in the local archaeological society journal and/or other relevant journal as appropriate.

6.1.5 In accordance professional standard practice an 'Online Access to the Index of archaeological investigations' ('OASIS') record will be completed for submission to the HER and ADS.

7 Information Management

7.1.1 GIS deliverables will be provided in accordance with the *Cultural Heritage GIS Specification* (HS2-HS2-GI-SPE-000-000004). CAD files will be GIS compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables must be supplied in GIS format.

7.1.2 Mapping and spatial data deliverables will conform to the Employer's GIS Standards as set out in HS2-HS2-GI-STD-000-000002 and other associated referenced documents.

7.1.3 The standard template for reports (HS2-HS2-PM-TEM-000-000004) will be used.

8 Quality Assurance Processes

- 8.1.1 The building recording will be managed and undertaken by suitably qualified, experienced and competent professionals.
- 8.1.2 The survey report, including illustrations and figures, will be checked and then reviewed by senior qualified, experienced and competent professionals prior to issue to the *Employer* for acceptance. Final reports, following comments, will be checked and reviewed again prior to issue.

9 Evidence of engagement

- 9.1.1 The Principal Conservation Officer at Birmingham City Council was contacted on 16th March 2018 with regard to this project plan and the building recording. The Washwood Heath site was additionally discussed at a meeting held with the BCC Conservation Officer and the West Midlands Historic England Principal Building Inspector on 22nd March 2018. The overall research questions and methodologies to be used in recording the complex were discussed as outlined above and agreed as appropriate.

10 References

Reference	HS2 document reference no.
HS2 Phase One Environmental Statement and Supplementary Environmental Statements	HS2-HS2-EV-STD-000-000036
Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)	HS2-HS2-EV-STR-000-000015
Technical Standard Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Technical Standard: Specification for Project Plans and Location Specific Written Scheme of Investigations	HS2-HS2-EV-STD-000-000036
HS2 Technical Standard for Recording of the Setting of Heritage Assets	HS2-HS2-EV-STD-000-000037
Heritage Consent Strategy	HS2-HS2-EV-STR-000-000008



11 Figures

11.1.1 The following figures are attached as Appendix A:

- Figure 1: Washwood Heath Location plan showing extent of study area and scheme
- Figure 2: Washwood Heath Heritage Assets
- Figure 3: Washwood Heath Previous Investigations

12 Glossary of terms

12.1.1 The following terms have been used in this report:

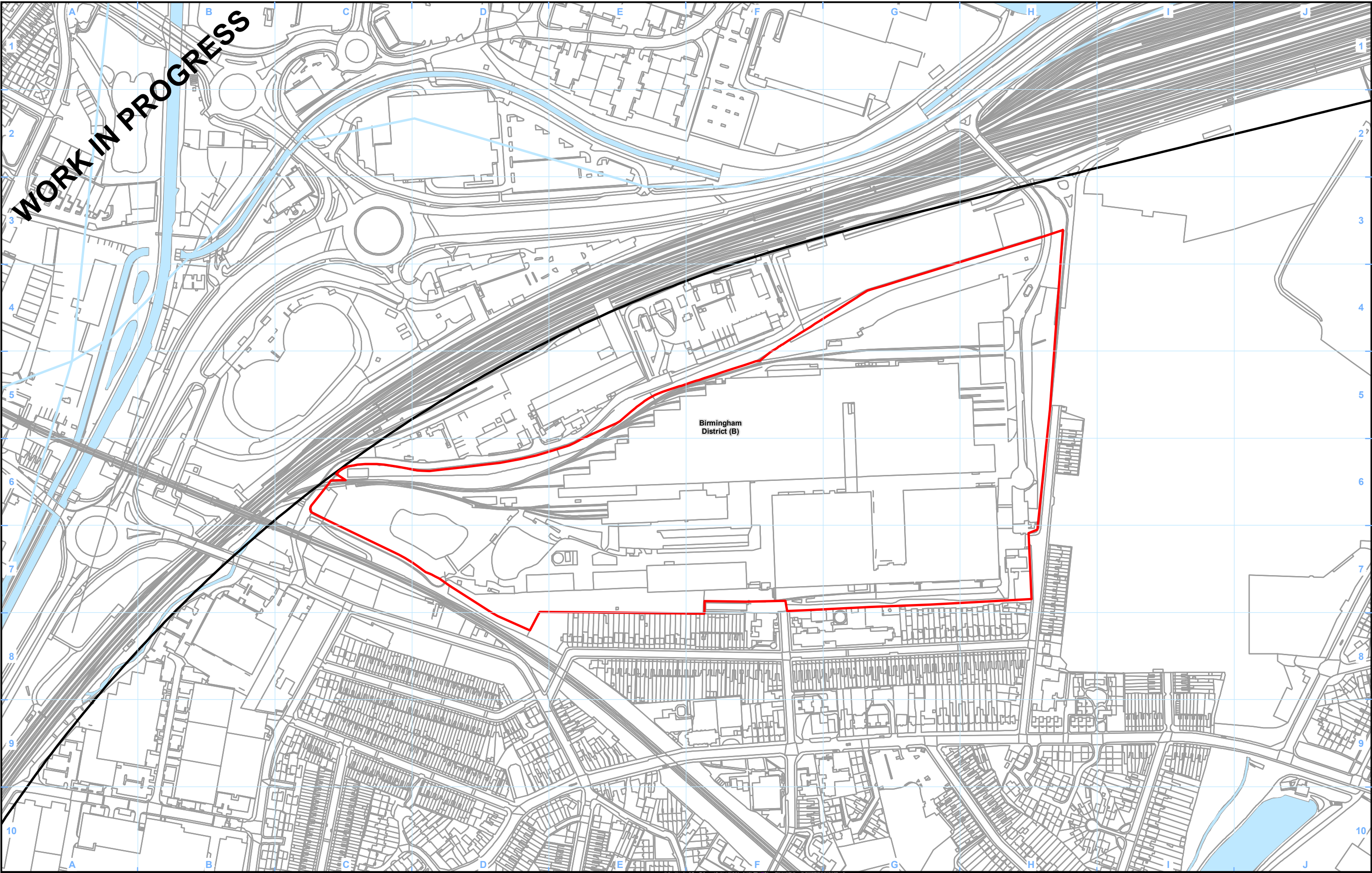
- **Contractor** – the organisation undertaking the building recording on behalf of the *Employer*.
- **Detailed Desk Based Assessment** – analytical document that builds on the information gathered previously in the Environmental Statement to address particular issues, questions or uncertainties within a given area. It may be developed to provide a more detailed understanding of the resource in an area to inform design development or construction programming.
- **Employer** – HS2 Ltd.
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combine historic environment investigation programme of assessment, evaluation and investigation.
- **Project Plans** – specification document for each specific package of activity (e.g. a survey, desk based assessment, excavation, recoding project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget.
- **Works** – the specific historic environment assessment, evaluation or investigation works at each location.

Acronyms

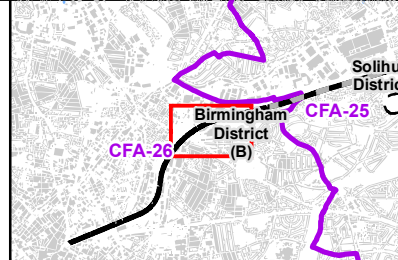
BIM	Building Information Modelling
CIfA	Chartered Institute for Archaeologists
CoCP	Code of Construction Practice
DDBA	Detailed Desk-Based Assessment
ES	Environmental Statement
EMR	Environmental Minimum Requirement
GIS	Geographical Information System
GWSI: HERDS	Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy
HE	Historic England (Formally English Heritage)
HER	Historic Environment Record
IHBC	Institute of Historic Building Conservation
LLAU	Limits of Land to be Acquired or Used
LS-WSI	Location Specific Written Scheme of Investigation
PDF	Portable Document Format



13 Appendix A - Figures



- Legend**
- Route in tunnel
 - Route on surface
 - Site Extent
 - Study Area
 - Community forum boundary
 - District/Borough boundary
 - Watercourse
 - Water Body



Map Number: **Figure 1**

Map Name: **Washwood Heath Location Plan**

Community Forum Area CFA26
Washwood Heath to Curzon Street

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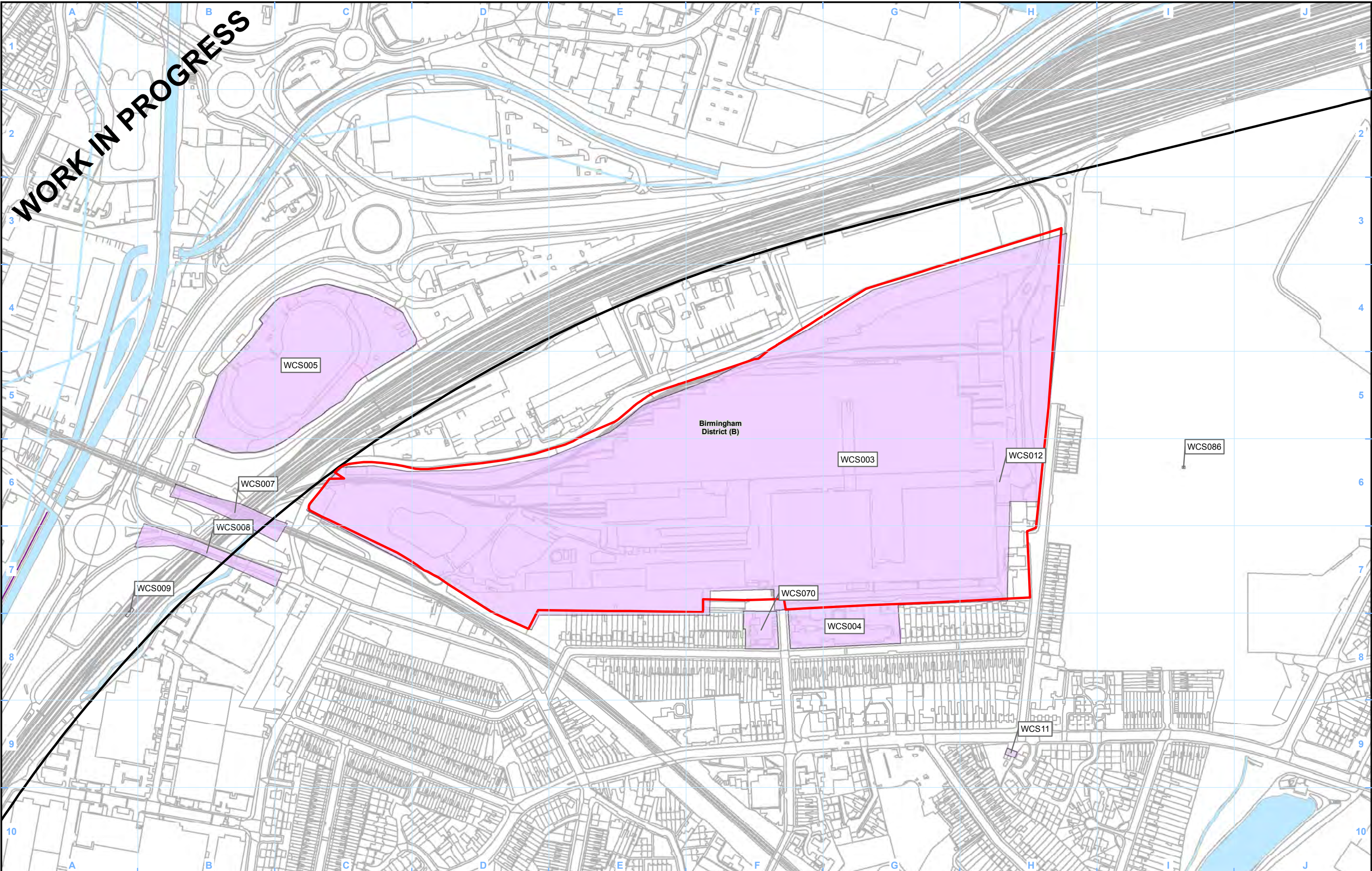
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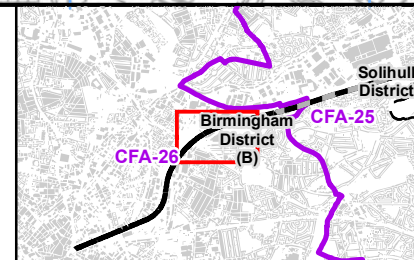
Doc Number: -

Date: 23/03/18



Legend

Route in tunnel	District/Borough boundary	Non Designated Heritage Site (Point)	Listed Building
Route on surface	Watercourse	Non Designated Heritage Site (Line)	Grade I
Site Extent	Water Body	Non Designated Heritage Site	Grade II
Study Area	Ancient Woodland	Registered Parks and Gardens	Grade II*
Community forum boundary	Scheduled Monument	WCSXX Heritage Asset Reference Number (2013 EIA)	



Map Number: **Figure 2**

Map Name: **Washwood Heath Heritage Assets**

Community Forum Area CFA26
Washwood Heath to Curzon Street

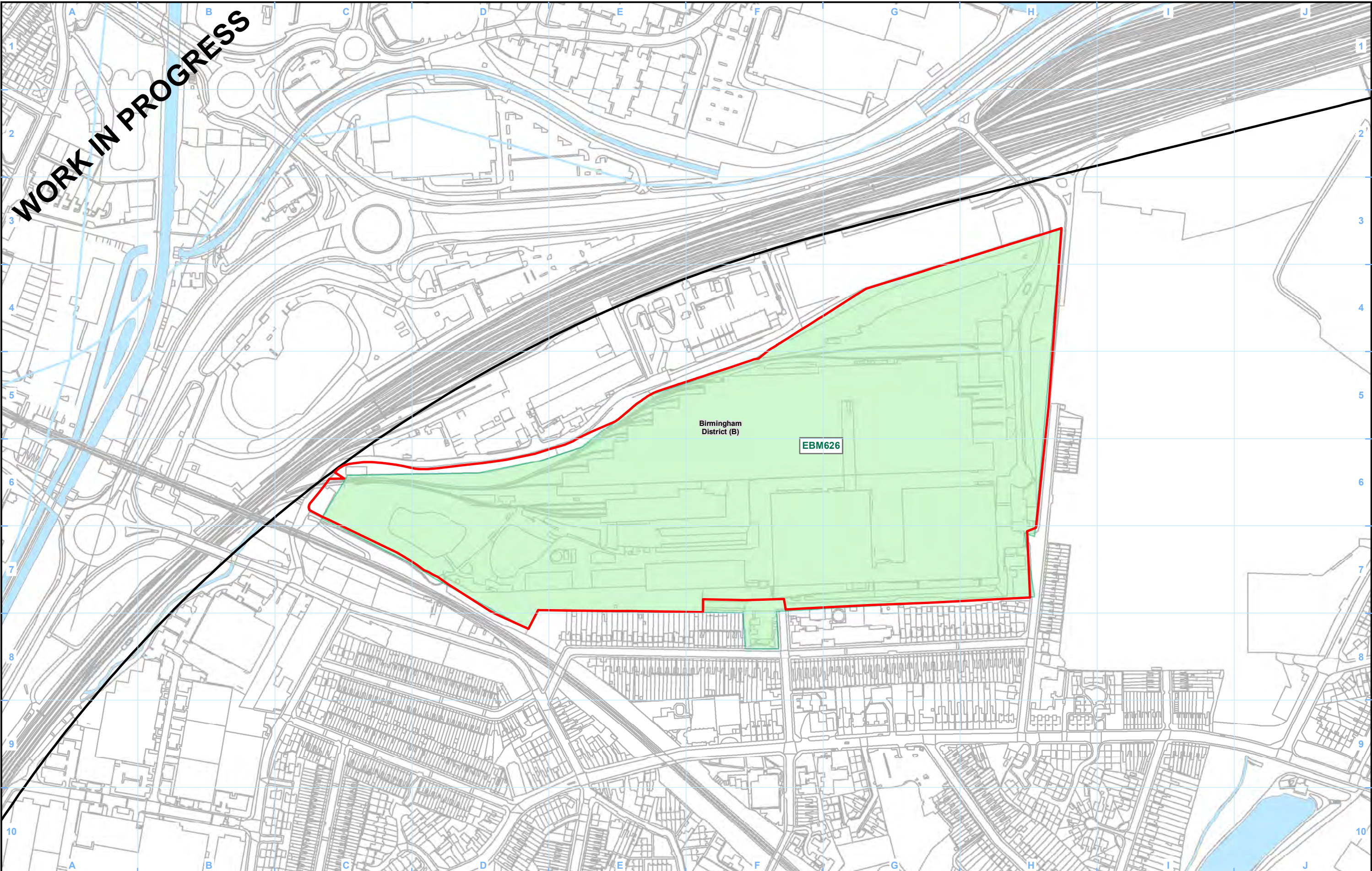
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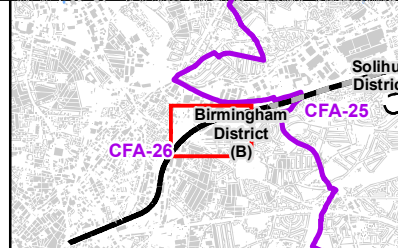
Scale at A3: 1:4,000

Doc Number: -

Date: 22/03/18



- Legend**
- Route in tunnel
 - Route on surface
 - ▭ Site Extent
 - - - Study Area
 - Community forum boundary
 - - - District/Borough boundary
 - Watercourse
 - Water Body
 - ▭ Historic Environmental Record
 - Historic Environmental Record (Linear)
 - ★ Historic Environmental Recording (Point)
 - ▭ EBMXX Birmingham HER Unique Reference Number (2016)



Map Number
Figure 3

Map Name
**Washwood Heath
Previous Investigations**

Community Forum Area CFA26
Washwood Heath to Curzon Street

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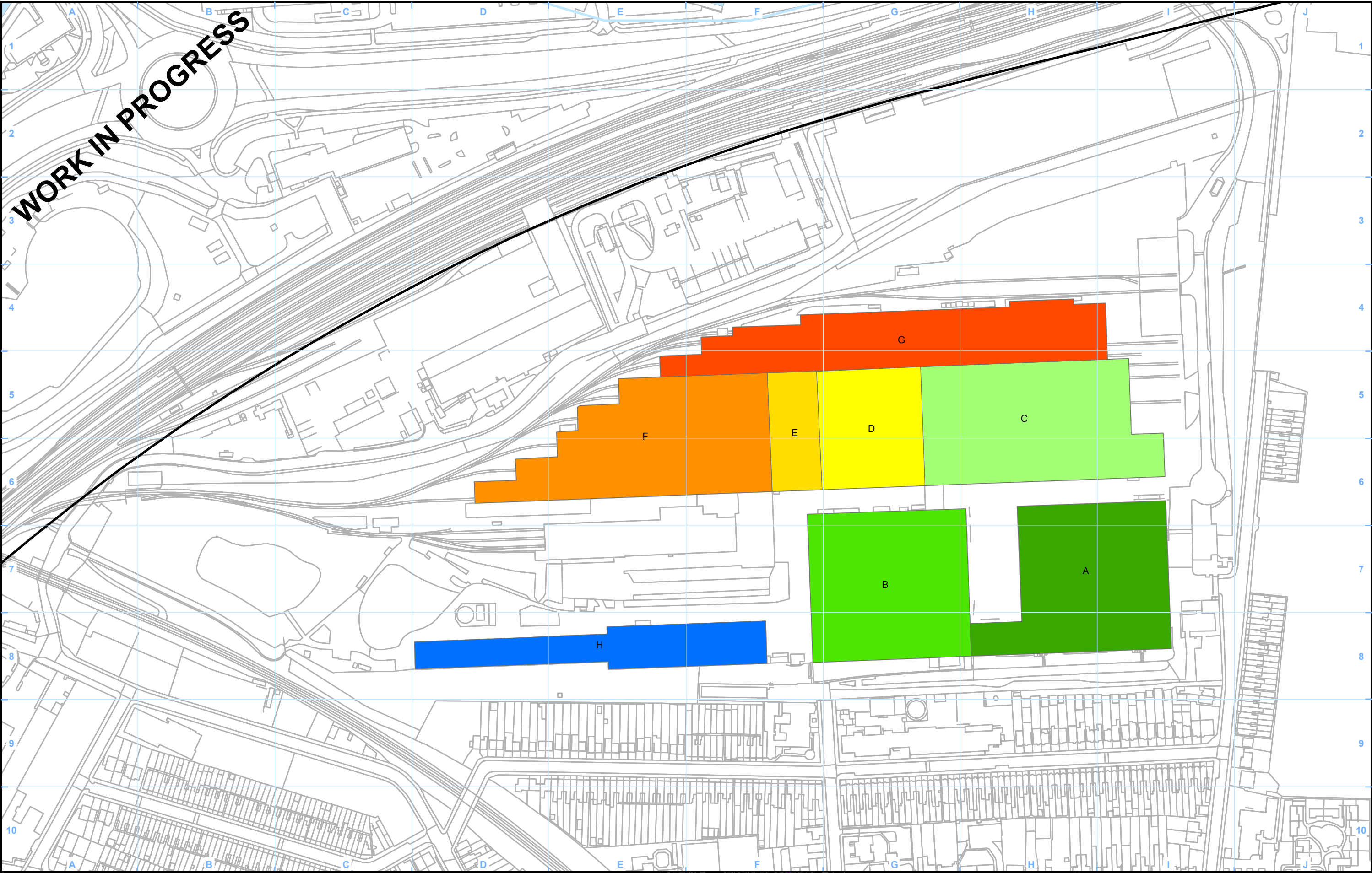
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0 40 80 120 160
Metres

Doc Number: -

Date: 22/03/18

WORK IN PROGRESS

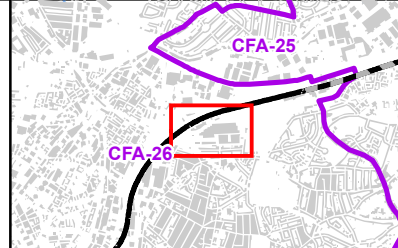


Legend

- Route in tunnel (dashed line)
- Route on surface (solid line)
- Site Extent (red dashed box)
- Study Area (red dotted box)
- Community forum boundary (purple line)
- District/Borough boundary (grey line)
- Watercourse (light blue line)
- Water Body (blue area)

Buildings to be surveyed

- A (Dark Green)
- B (Bright Green)
- C (Light Green)
- D (Yellow)
- E (Yellow-Orange)
- F (Orange)
- G (Red-Orange)
- H (Blue)



Map Number: **Figure 4**

Map Name: **Washwood Heath
Location of buildings to be recorded (A-H)**

Community Forum Area CFA26
Washwood Heath to Curzon Street

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Scale at A3: 1:2,500

0 25 50 75 100 Metres

Doc Number: -

Date: 26/03/18

14 Appendix B - Plates

Plate 1: Ordnance Survey mapping of 1905, revised in 1902



Ordnance Survey (1905) Second Edition 1905. Warwickshire Sheet XIV.2. 1:25 inch. Southampton, Ordnance Survey. Reproduced with the permission of the National Library of Scotland

Plate 2: Ordnance Survey mapping of 1917, revised in 1913



Ordnance Survey (1917) Edition of 1917. Warwickshire Sheet XIV.2. 1:25 inch. Southampton, Ordnance Survey. Reproduced with the permission of the National Library of Scotland

Plate 3: Ordnance Survey mapping of 1920, revised in 1913



Ordnance Survey (1920) Edition of 1920. Warwickshire Sheet XIV.N.W. 1:6 inch. Southampton, Ordnance Survey. Reproduced with the permission of the National Library of Scotland

Plate 4: Aerial photograph of 2013



Aerial photograph (2013). Taken as part of HS2 Phase One Environment Statement (ES), accessed via gViewer 17th April 2018.



15.3 Risk Assessment Method Statement (RAMS)

Method Statement/ Risk Assessment

All sections of this method statement/risk assessment are to be completed. If a section is not applicable, this is to be stated. If needed, additional documents or extra information is to be attached to the back of the method statement and state the reference in the appropriate section of the method statement.

Method Statement Title	Washwood Heath, Birmingham: Historic Building Recording
Method Statement Ref Number/Status/Revision	33699b/RAMS/02
Contract Number	33699
Contract Title	HS2 WP029 – Historic Environment Works – Washwood Heath Depot and Saltley Trading Estate – Enabling Works North Contract
Client/Principal Contractor Details	<p>LM Joint Venture LMJV Head Office, Cornerblock, 2 Cornwall Street, Birmingham B3 2DL</p> <p>Paul Hunt, Project Manager 07775 551776</p> <p>John Power, Construction Manager 07831 222853</p> <p>Connect Archaeology Melissa Melikian, Operations Director 0208 8437380 or 07500 104671</p> <p>Gemma Hudson, Project Officer 07824 439635</p> <p>Paul Gwilliam, Project Manager 07780496224</p> <p>Martin Cook, H&S Director 0131 440 3593 or 07801 562493</p>
Date of Issue	21/05/18
Contract Start Date	22/05/18
Contract End Date	21/06/18

Appendices	A. Plan and directions to A&E
	B.
	C.
	D.
	E.

General Health, Safety, Quality & Environmental Requirements

All work will be carried out in compliance with Connect Archaeology & Clients Management Systems in-line with BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 & OHSAS 18001: 2007 Requirements and all Operational Procedures.

Method Statement/ Risk Assessment

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Method Statement/ Risk Assessment

1.0 Scope & Objectives of Works

Full description of the scope of works to be outlined, including a basic programme of works

Scope

The historic building recording is required to create an historical record of the site prior to commencement of their demolition. The objective of the investigation is to gain information about the historical resource in order to support an assessment of its character, extent, knowledge value, preservation and potential to contribute to Specific Objectives set out in the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (Doc No: HS2-HS2-EV-STR-000-000015) (see below). The outcome of the investigation may be used to inform future decision-making on the requirement for further investigation at the Site, and a strategy for achieving it.

The works will be in accordance with HS2 WP029 – Historic Environment Works – Washwood Heath Depot and Saltley Trading Estate – Enabling Works North Contract - Location Specific Written Scheme of Investigation for Trial Trenching (Doc No: 1EW04-LMJ-EV-MST-NS03_NL08-029000). Monitoring of the project will be undertaken by DJV to ensure compliance with the Project Plan (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL08-029000) and Location Specific Written Scheme of Investigation (Doc No: 1EW04-LMJ-EV-MST-NS03_NL08-029000). All works will be carried out in accordance with this Risk Assessment/Method Statement. The Site Emergency Plan, detailing muster point(s), procedures, emergency contact details and directions to the nearest A&E, will be displayed in the Site Office.

All works will be supervised by John Power, LM Construction Manager.

2.0 Location of Works

Full location description including not only the working area but also the positioning of compounds/welfare facilities.

The Washwood Heath Depot Site comprises a number of undesignated industrial buildings in the Washwood Heath area to the north-east of the city of Birmingham. It is located to the east side of the railway adjacent to Aston Church Road and to the south and south-east of an unnamed east/west road providing access to a number of other industrial units. To the east of the site is Common Lane and to the south are the rear gardens of the properties along Warren Road and Leigh Primary School. There are presently eight large undesignated buildings on the site, which are all of brick and largely comprise a series of long, linear gabled bays arranged in continuous blocks to afford extensive use of internal space. The buildings have been labelled A- H for the purposes of the survey.

3.0 Task Methodology

Pre-Commencement

Method Statement/ Risk Assessment

All Connect Archaeology will attend a Site-Specific Induction, including Site Rules, Emergency Arrangements and in addition will be briefed on Site Specific Risk Assessments, Method Statements and Procedures.

The compound will consist of a mobile welfare cabin suitable for up to five people

All works will be supervised by John Power, LM Construction Manager.

Connect Archaeology staff will be on site between 08:00 and 17:00.

Task

Archive Research

Prior to and during the on-site historic building recording survey, a number of archive sources will be consulted relating to the design, construction, use and alteration of the buildings over time, including its use for the manufacture of munitions during the First World War. These may include architectural designs and drawings held in railway archives or the Cammell Laird archive, and documents which relate to its use as part of the war effort held by the National Archive. A detailed map regression will also be undertaken on all publicly accessible Ordnance Survey maps from the First edition to the present day. A more detailed outline of the sources that will be consulted are included in the Project Plan for Washwood Heath (Doc No: 1EW04-LMJ-EV-PLN-NS03_NL08-029000).

Photographic Record

The photographic record will be undertaken in colour digital using a digital SLR to a minimum 10-megapixel resolution in both JPG and RAW format. A tripod may be used in areas of poor light, as well as flash photography and a 2m or 1m ranging pole will be placed in all shots where access and health and safety allow for scale.

General views of the exterior of each building will be taken which will comprise both oblique views and head-on elevation views (as is possible within the constraints of the site). This will be accompanied by a detailed photographic record of specific elements such as windows, doors, blocked openings, architectural and structural detail, evidence for phasing and/or function, modern interventions and anything else pertinent to the historic record.

Internally, a general photographic record will be undertaken of each room or internal space within the buildings to sufficiently create good overall coverage of the space. As with the exterior, detailed photographs will also be undertaken of specific elements such as windows, doors, blocked openings, architectural and structural detail, evidence for phasing and/or function, modern interventions and anything else pertinent to the historic record.

A running register of photographs will be made on site, which will be included in the final report as an appendix.

Written Record

The photographic record will be accompanied by a written record of the exterior and interior of the buildings using pro forma recording sheets which will be filled out for each building and internal room. Comment will be made on condition, construction and materials, architectural style and character, evidence for phasing, evidence for past industrial practices, modern interventions and anything else pertinent to the historic record.

Drawn Record

No specific on-site measured survey record has been outlined in either Project Plan other than the tying in of the photographic and drawn record to a general site plan, which will be supplied by the Client. However, any archive plans discovered will be included and consulted to provide an overall interpretation of the internal spaces and the flow of industrial processes through time.

Method Statement/ Risk Assessment

Reporting

Upon completion of the stages of the on-site recording an historic building recording survey report will be produced for the site. This will include:

- A summary of the background to the development and principal findings, including the Specific Objectives addressed;
- Site location map accompanied by a description of the building's location and NGR reference of each building and a description of the topography of the site;
- Detail of the site background, site location and development background;
- Specific objectives of the survey;
- A detailed methodology of the archive research, on-site work and post on-site work (i.e. reporting);
- Historical background to put the site into context, to include an overview and analysis of all archive information examined;
- Historical map representations and archive drawings that are referenced in the text;
- An architectural description of the buildings;
- A copy of all photographs taken used as plates to illustrate the architectural descriptions fully cross-referenced with the photographic record;
- Relevant site plans to provide context to the architectural descriptions;
- A discussion bringing together the findings of the historical background and on-site investigations, including a consideration of the buildings in their wider context;
- An evaluation of the methodology employed and the results obtained (i.e., a confidence rating);
- Conclusions;
- Recommendations, i.e., publication and dissemination proposals;
- All references listed, including bibliographic references, cartographic references and archive sources;
- Appendices, including:
 - Written Photographic Register;
 - Any illustrations, which will include site plans with scale and grid co-ordinates;
 - Site plans showing extent of features of setting;
 - Site plans showing areas of building identified for salvage if relevant.

Post Task Methodology

The Site will be left clean, tidy and secure.

4.0 Parties Affected by Works

Clients Employees	Yes	√	No		Employees	Yes	√	No	
Visitors	Yes	√	No		Contractors	Yes	√	No	
Members of the Public	Yes	√	No						

5.0 Specific Hazards

Principle hazards are:

- Manual handling - carrying equipment to and from site and the operation
- Infectious diseases
- Movement around site - uneven terrain presenting a risk of trips and falls
- Possible open voids/fragile floors - falls from height
- Contaminated material

Method Statement/ Risk Assessment

- Contamination from wildlife
- Falling/flying building debris
- Possible persons sleeping rough
- Sharps (e.g. needles, broken glass)
- Isolated working areas
- Adverse weather conditions
- Confrontation
- Fire in compound

6.0 Foreseeable Hazards & Risks Associated with Works

Risk Assessment

Risk Rating Matrix

Risk = Likelihood x Severity

RISK RATING (R) Likelihood (L) x Severity (s)	HAZARD SEVERITY (S)				
	Negligible (N) Negligible injury, no absence from work	Slight (S) Minor Injury requiring first aid treatment	Moderate (M) Injury leading to a lost time accident	High (H) Involving a single death or serious injury	Very High (VH) Multiple Deaths
Very Unlikely (VU) A freak combination of factors would be required for an incident/accident to result	LOW	LOW	LOW	LOW	MEDIUM
Unlikely (U) A rare combination of factors would be required for an accident/incident to result	LOW	LOW	LOW	MEDIUM	MEDIUM
Possible (P) Could happen when additional factors are present but otherwise unlikely to occur	LOW	LOW	MEDIUM	MEDIUM	HIGH
Likely (L) Not certain to happen but an additional factor may result in an accident/incident	LOW	MEDIUM	MEDIUM	HIGH	HIGH
Very Likely (VL) Almost inevitable that an accident/incident would result	MEDIUM	MEDIUM	HIGH	HIGH	HIGH

LOW RISK

May be acceptable; however, review task to see if risk can be reduced further.

MEDIUM RISK

Task should only proceed with appropriate consultation with specialist personnel and safety team. Where possible the task should be refined to take account of the hazards involved or the risks should be reduced further prior to task commencement.

HIGH RISK

Task must not proceed. It should be redefined or further control measures put in place to reduce risk. The controls should be re-assessed for adequacy prior to task commencement.

Item	Hazards Identified	Who Is At Risk	Risk Rating at Initial Assessment	Residual Risk After Control Measures Applied
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1.	Manual Handling: Over exertion, dropping, failure to assess the lift, incorrect lifting cuts, strains, back injuries etc	Employees	LxM=Med	UxM= Low
2.	Infections and Diseases <ul style="list-style-type: none"> • Weils Disease • Ticks and Lymes Disease • Tetanus 	Employees	UxH=Med	UxM= Low
3.	Movement around site <ul style="list-style-type: none"> • Slipping and tripping / uneven ground • Presence of unauthorised personnel / public footpaths • Movement around site • Poor light 	Employees Visitors	PxM=Med	UxM= Low
4.	Possible open voids/fragile floors - falls from height	Employees	PxM=Med	UxM= Low
5.	Contaminated material	Employees	PxM=Med	UxM= Low
6.	Contamination from wildlife	Employees	PxM=Med	UxM= Low
7.	Falling/flying building debris	Employees	PxH=Med	UxM= Low
8.	Possible persons sleeping rough	Employees		UxM= Low
9.	Sharps (e.g. needles, broken glass)	Employees	PxM=Med	UxM= Low
10.	Isolated working areas <ul style="list-style-type: none"> • Injury or ill health when working alone or at a distance from others 	Employees Visitors	PxM=Med	UxM= Low
11.	Severe weather <ul style="list-style-type: none"> • Exposure to the elements 	Employees Visitors	UxM=Low	UxM= Low

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	and extreme temperatures			
12.	Confrontation with members of the public	Employees Visitors	PxH=Med	UxM= Low
13.	Fire in Compound	Employees Visitors	PxH=Med	UxM= Low

Item	Control Measures
1.	<p>Manual Handling</p> <ul style="list-style-type: none"> • No weights requiring mechanical methods will be lifted. • Seek help from others when lifting heavy equipment. • Wear PPE including supportive/protective boots and gloves where appropriate. • Assess weight to be lifted. No lifting issue is anticipated with the equipment used.
2.	<p>Infections and Diseases</p> <ul style="list-style-type: none"> • Contact with standing water to be avoided at all times. • Wear gloves. • Always wash hands before eating/drinking/smoking. • Avoid unnecessary contact with eyes, mouth and nose using dirty hands. • All cuts and skin abrasions to be immediately washed and dressed. • Close fitting clothes (no shorts or short-sleeved shirts) • Medical attention to be sought if flu-like symptoms appear between one to four weeks after a possible insect or tick bite following working in such areas. • It is the responsibility of each staff member to ensure compliance with the control measures.
3.	<p>Movement Around Site:</p> <ul style="list-style-type: none"> • All works will be supervised by John Power, LM Construction Manager. • Staff to be aware of the potential dangers involved in moving around the site, e.g. uneven ground, presence of unauthorized personnel etc. • The site will be inspected for slip and trip hazards prior to work commencing. • Suitable safety footwear will be worn by all staff. • All staff are to ensure that footwear is maintained and replacement sought if necessary. • Tools will be stored neatly in designated areas. • Torches to be used in areas of poor lighting. • Staff not to enter dark areas. • If appropriate access and egress to trenches will be by designated safe routes • The project supervisor will assess the site for hazards and update the risk assessment as necessary. • In the event that unauthorised personnel gain access all survey works will cease until the person(s) have been escorted from the site. • There are no public footpaths within the site boundary.
4.	<p>Possible Open Voids/Fragile Floors - Falls from Height</p> <ul style="list-style-type: none"> • All works will be supervised by John Power, LM Construction Manager. • Ensure you have a visible walk route where you can assess the floor conditions. • Ensure there is adequate lighting (daylight)

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	<ul style="list-style-type: none"> Do not walk on surfaces that are made of or look different than the rest of the floor. i.e. wooden planks/batons/metal plates etc. Stay clear of any openings on floors that are not protected. Caution must be taken even if openings have barriers or handrails as they may not be secure. Stay clear of voids/opening that are filled with water or liquid material.
5.	<p>Contaminated Material</p> <ul style="list-style-type: none"> All works will be supervised by John Power, LM Construction Manager. Do not touch unmarked containers/liquids Stay clear of any spillages. If a strong odour or fumes is present, leave the area immediately. Stay clear of voids/opening that are filled with water or liquid material. If you feel nauseous, leave the area immediately and seek medical assistance.
6.	<p>Contamination from Wildlife</p> <ul style="list-style-type: none"> Keep a watch for pigeon guano, which can have ticks and cause rashes. Do not go into areas which have a heavy infestation of pigeons or pigeon guano. Wear latex gloves, or other protective gloves and have face masks in the site kit if there are pigeons in the building. Always wash hands before eating/drinking/smoking.
7.	<p>Falling/flying Building Debris</p> <ul style="list-style-type: none"> All works will be supervised by John Power, LM Construction Manager. Undertake a visual assessment of the area including weather conditions. Undertake your Dynamic Risk Assessment. Do not enter if the roof area has broken glass panels or looks unstable. Stay clear of walls that look unstable or have loose material. Ensure you understand the risks identified in the building survey or other information available. Ensure operatives are wearing Hard Hats.
8.	<p>Possible Persons Sleeping Rough</p> <ul style="list-style-type: none"> All works will be supervised by John Power, LM Construction Manager. Always walk around in pairs. If you encounter a person or persons sleeping rough or using the area as a home, try not to confront them. Be polite and leave the area, seek advice from the main contractor, security or Police.
9.	<p>Sharps (e.g. needles, broken glass)</p> <ul style="list-style-type: none"> Where suitable gloves. If found, DO NOT touch and inform your Site Manager; Never put your hands where you can't see; If you are cut or your skin is punctured squeeze the infected area to make it bleed – DO NOT suck the blood out; Retain the sharp if safe to do so; Seek medical attention immediately.
10.	<p>Isolated Working Areas:</p>

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	<ul style="list-style-type: none"> • Staff to work in small groups in relatively close proximity (within sight). • No lone working.
11.	<p>Severe Weather:</p> <p>Exposure to the elements and extreme temperatures</p> <ul style="list-style-type: none"> • Individuals to wear appropriate protective clothing (rain proof and/or windproof and/or warm garments in adverse wet, windy or cold weather conditions. • Individuals to wear appropriate clothing (loose and light) and sun protection (sun screen, appropriate hat) in warm, bright weather conditions. Shorts should not be worn, short-sleeved shirts should not be worn in areas where deer are known to be present, or when weather conditions, extreme heat/cold, determine. • Work should cease in thunderstorms and appropriate shelter sought. • All staff to adhere to the control measures.
12.	<p>Confrontation with Members of the Public</p> <ul style="list-style-type: none"> • Do not engage in confrontation with the public • Always be polite • Do not discuss the works, refer the person/s to the HS2 Contact Number • Leave the work area as soon as possible if arguments or aggressive behaviour becomes intimidating or threatening. • Report any issues to your Manager.
13.	<p>Fire in Compound</p> <p>Display site emergency procedure and appoint fire-fighting equipment in areas of risk e.g. Canteen/Storage areas.</p> <p>Smoking prohibited in storage areas. Smoking only allowed in Designated area.</p> <p>Ensure cookers and heaters are powered by electricity.</p> <p>Ensure ALL WASTE is collected on a daily basis and deposited in skips for regular removal by waste carrier.</p> <p>Most fires can be prevented with simple precautions.</p> <p>If a fire does occur:</p> <ul style="list-style-type: none"> • Raise the alarm. • Locate an escape route. • It is vital these routes are kept clear at all times • Make your way calmly to the designated meeting point and stay there. This is very important as a full register will be taken to ensure everybody is present. • If the fire is small –and suitable fire-fighting equipment is immediately to hand –and you decide to tackle the small fire ensure that you always position yourself between the fire and your escape route

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7.0 Specific Health & Safety Compliance Arrangements

Detail all health & safety restrictions or arrangements required for the contract

All works will be supervised by John Power, LM Construction Manager. All works carried out by Connect site staff will adhere to the Client's Health and Safety procedures as outlined in this document and given during the site induction.

8.0 Protection of Third Parties from Works

Detail specific control measures for the prevention of exposing third parties to risks from works

Site Specific Rules in place.
LM to provide details on access/locks etc.
The site welfare will be kept locked whilst staff are on site.
No welfare will be left overnight.

9.0 COSHH

Detail all substances, materials and biological organisms applicable to the works

Material/Substance/Biological	Control Measure

10.0 Personal Protective Equipment & Other Essentials

High Visibility Clothing	√	Safety Glasses	√	First Aid Kit	√
Sunscreen and after sun protection	√	Waterproof Trousers	√	Safety Gloves	√
Wet Weather Clothing	√	Hard Hat	√	Latex Gloves	√
Ear Protection	√	Respiratory Protective Equipment (RPE)		Antiseptic Wipes/Hand Cleaner	√
Boots (Steel-Toe Capped Boots with Ankle Protection, Toe and Mid Sole Protection)	√	Sat Nav	√	Maps of Site	√
Food Provision	√	Fully Charged Mobile and Charger for Each Member of Staff	√	Other (Specify)	

11.0 Emergency Response Equipment/Arrangements

Detail all emergency response equipment and arrangements

Emergency Procedures

A qualified first aider will be present on site at all times (British Red Cross), as required by the Health and Safety (First Aid) Regulations (1981).

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A complete first aid kit will be maintained on site at all times.

Any injury will be reported and included in the site accident book.

In the case of health and safety concerns or injury, Connect Archaeology staff are to inform Gemma Hudson, the Project Officer in the first instance who will liaise with Melissa Melikian (Connect Archaeology Operations Director). Any immediate health and safety and security issues should also be reported to the client.

All site staff carry valid CSCS cards which will be made available for inspection. All site supervisors are SSSTS certified.

In the event that a member of staff is seriously injured on site the emergency services will be contacted immediately. The site address will be given as:

Washwood Heath Depot
Heartlands Parkway
Birmingham
B7 5AH

In case of accident or emergency Connect Archaeology Project Management will be informed. Connect will be responsible for reporting the incident to the Health and Safety Executive (HSE), should this be required, within the time periods stipulated by the HSE.

The nearest Accident and Emergency hospital is:

Heartlands Hospital
Bordesley Green East
Bordesley Green
Birmingham
West Midlands
B9 5SS
Tel: 0121 424 2000

12.0 Permit to Work Requirements

Permit to Dig	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Permit to Work At Height	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Hot Work Permit	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Confined Space Permit	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
General Permit to Work	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Other Permit				

13.0 Personnel Involved in Task & Contact Details

Detail personnel involved in the task either in persons conducting job or overall numbers. Also include levels of supervision.

Designated staff

LM	Paul Hunt	07775 551776
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LM	John Power	07831 222853
WSP (DJV)	Glenn Rose	07583 018586
Connect Archaeology Project Officer:	Gemma Hudson	07824 439635
Connect Archaeology Project Manager:	Melissa Melikian	07824 438954
Connect Archaeology Health & Safety Consultant:	Stuart Draper	07595 450671

14.0 Specific Training Requirements for Task

Detail all training requirements/restrictions, including any licences required for persons conducting task

All staff are CSCS card holders.
Site Supervisor SSSTS.
Staff trained in GPS survey using Trimble dGPS.

15.0 Plant & Equipment to be used During Works

Detail all plant

NA

16.0 Traffic Management

Detail requirements for traffic management restrictions and controls

LM to provide details on access routes and any parking requirements.

17.0 Waste Disposal & Environmental Considerations

Detail all Waste Disposal Considerations

Connect staff will work in accordance with the Site Environmental Procedures and Site Rules as stated by LM below.

LM ENVIRONMENTAL SITE RULES

- Core working hours from 08:00 to 18:00 on weekdays (excluding bank holidays) and from 08:00 to 13:00 on Saturdays.
- Any work out of these hours will need to be agreed with LM and the Local Authority.
- One hour before and up to one hour after normal working hours is allowed for start-up and close down of activities. **No plant and/or machinery shall be turned on during this period.**
- No open fires allowed.
- Vehicles and plant will be switched off and secured when not in use.

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- If you are approached by members of the public advise them to contact the HS2 helpdesk and provide contact cards.

ALL ENVIRONMENTAL INCIDENTS INCLUDING SPILLS, LEAKS, ECOLOGICAL OR DAMAGE TO BUILDINGS ARE TO BE REPORTED TO YOUR SITE SUPERVISOR WHO WILL NOTIFY LM.

Waste will be disposed of in accordance with Site Rules and Procedures.

18.0 Specific Emergency Contact Numbers/Procedures


Detail all Specific Emergency Contact Numbers or Procedure references

Refer to Emergency Contact details displayed in the Site Office.

19.0 Specific Co-operation with Third Party Activities

Detail specific requirements

To be discussed at Site Meeting

Method Statement/Risk Assessment Prepared by	Name	Melissa Melikian	Sign	
	Position	Operations Director	Date	21 st May 2018
Reviewed by		Paul Hunt, LM	Date	

20. Acknowledgement:

I confirm that I have understood the Method Statement/ Risk Assessment and undertake to execute the works in the appropriate manner.

Print Name	Sign	Date

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Appendix A: Plan and Directions to A&E

