



# 1EWo2 Enabling Works - Area South

# Heritage Agreement Method Statement

# Recording and Dismantling Railings around Euston Square Gardens

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## **REVISION CHANGES, AUTHORISATION & ISSUE RECORD**

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### 1 Introduction

#### 1.1 Circumstances of the project

- 1.1.1 High Speed Two (HS2) is a network of new high speed lines across Britain, being planned and built in two phases: Phase One, which will connect London with Birmingham and the West Midlands; and Phase Two, which will extend the route to Manchester, Leeds and beyond. Powers to construct and operate the railway have been secured through the High Speed Rail (London West Midlands) Act 2017 (the Act), which received Royal Assent on 23 February 2017.
- 1.1.2 The Secretary of State has appointed High Speed Two (HS<sub>2</sub>) Ltd as the nominated undertaker responsible for delivering Phase One of HS<sub>2</sub>. HS<sub>2</sub> Ltd is an executive non-departmental public body, sponsored by the Department for Transport.
- 1.1.3 Schedule 18 'Listed Buildings' to the Act concerns how legislation in respect of listed buildings under the Planning (Listed Buildings and Conservation Areas) Act 1990 ("the 1990 Act") applies to the Phase One works. Paragraph 1 of Schedule 18 disapplies some of this legislation, and in particular the requirement for listed building consent, from the Phase One works in respect of the listed buildings set out in Table 1, or which are listed on or after 30 September 2013.
- 1.1.4 Following Royal Assent, HS2 Ltd entered into Heritage Agreements with the London Borough of Camden and Historic England concerning the listed buildings identified in Schedule 18 to the Act located within Camden. These agreements require certain details of works concerning the listed buildings to be submitted to the local authority for their approval, in consultation with Historic England where required.
- 1.1.5 The railings around Euston Square are identified in Table 1 of Schedule 18 of structures "to be demolished, altered, or extended." In the case of the grade II listed railings they are identified to enable removal and later re-erection. HS2 Ltd entered into a Heritage Agreement with London Borough of Camden and Historic England dated [05/05/2017] that requires HS2 Ltd to submit method statements concerning the recording, removal and subsequent re-erection of these railings to London Borough of Camden for approval. The Heritage Agreement requires Historic England and the relevant Amenity Societies (the Ancient Monuments Society, the Victorian Society, the Council for British Archaeology and the Society for the Protection of Ancient Buildings) to be consulted on these submissions.

#### 1.2 Scope of the method statement

1.2.1 The following method statement has been prepared to address the dismantling and storage of the railings around Euston Square Gardens (including their associated piers). Their subsequent re-erection, including the process for the re-assembly of the component parts will be the subject of a separate Method Statement submission.

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- 1.2.2 The Heritage Agreement with London Borough of Camden and Historic England, dated 5 May 2017, sets out the requirements for submission of work details in Schedule 1C under the headings of Works Specification and Method Statement as follows.
  - 1. "Part 1 Works Specification. Removal of the railings and associated piers and their subsequent re-erection (upon cessation of the use of the site for construction purposes) within the re-landscaped Euston Square Gardens. [As noted in previous paragraph the subsequent re-erection of the railings will be subject of a separate Method Statement submission]
  - 2. Part 2 Method Statement Details. In relation to the removal of the railings and piers and their re-erection, a method statement is to set out:
    - a. a specification for recording of the railings and piers, including constructional details, in accordance with Historic England guidance for the recording of historic buildings;
    - b. how the railings and piers are to be dismantled;
    - c. how the component parts are to be protected, transported and stored; and
    - d. the process for the re-assembly of the component parts during re-erection of the railings and piers."
- 1.2.3 This method statement covers Schedule 1C, Part 2 Method Statement details a to c only, and items at Schedule 2, as set out below. Item d the process for re-assembly will be addressed in a separate, subsequent method statement document.
- 1.2.4 Schedule 2 of the Heritage Deed dated 5 May 2017 sets out requirements under the heading "Information to accompany submissions of works details" and with the statement "The matters which so far as relevant are to be included in a submission under clause 2.2 comprise."

  The relevant information included here is:
  - A description of the building [structure] and the part(s) affected by the works and their architectural or historical significance; [This is included in Section 2 below]
  - An up to date location plan at a scale not smaller than 1:1250; [This is included in Appendix A]
  - As existing survey drawings of the areas of the building [structure] affected by the
    works (including of interior features and fittings of architectural or historic interest
    and of the extent of the fabric loss) at a suitable scale (floor plans, elevations and
    sections); [Samples of drawings in draft format are included in Appendix B]
  - General and detailed photographs of the areas affected; [Photographs of the railings in their setting and in detail are included in Section 2 below]





- 1.2.5 Recording of the railings around Euston Square Gardens will be carried out in accordance with this method statement, to meet the requirements of the Heritage Agreement set out above. The full scope of recording work and recording standards are set out in Section 4 of this document. Samples of draft record drawings are provided in Appendix B, to illustrate the form and arrangement of railings as described in Section 2 below. A digital copy of the final record report will be provided to the local authority and made available to the public through the Archaeology Data Service (ADS) and the Greater London Historic Environment Record (GLHER). The report will include the data gathered and outputs created from all recording work on the railings carried out at various stages, prior to and during dismantling.
- 1.2.6 The two grade II listed lodges in Euston Square Gardens are also subject to the Heritage Agreement dated 5/5/2017 (Schedule 1B). A separate Method Statement submission will be required for any alterations (repairs) to the lodges resulting from the detachment of the separately listed railings.

#### 1.3 Abbreviations

The following abbreviations have been used in the text.

Table 1 List of abbreviations

Abbreviation	Definition		
CSjv	Costain Skanska Joint Venture		
GLAAS	Greater London Archaeology Advisory Service (Part of Historic England – London Office)		
GLC	Greater London Council		
GLHER	Greater London Historic Environment Record (Historic England)		
HE	Historic England		
HS <sub>2</sub>	High Speed 2 Ltd		
LMA	London Metropolitan Archive		
PM	The Employer's Project Manager		
WI	Works Information		
WP	Work Package		
WPM	Work Package Manager		

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## 2 Heritage asset description and history

#### 2.1 General information

- 2.1.1 The railings form the boundary around Euston Square Gardens within the London Borough of Camden. They extend along Euston Road to the south side of the gardens, and along Eversholt Street on the east side. They also extend north from the Grade II listed lodges on either side of the bus access road which bisects the gardens into east and west sections. Although some sections have been moved and repositioned, they constitute, with the lodges, the principal remains of Euston Station as built and extended in the nineteenth century.
- The railings are listed Grade II (list entry no. 1342039), and they were first inscribed on the list on 14 May 1974. They are located in the Bloomsbury Conservation Area, within Sub-Area 1: Euston Road. The list entry for the railings is reproduced in Appendix C.

#### 2.2 Description

#### Setting and extent of railings

- Euston Square is situated adjacent to and on the northern side of Euston Road, to the south of Euston Station. The square is rectilinear in plan and orientated south-west to north east. However, for ease of reference it will be assumed that it lies on a west-east alignment. The Euston Square railings conform to the divided nature of the square itself, forming a western and eastern group. The square is divided in the centre by a station access road for busses, to exit and enter from Euston Road. The entrance to this route lies between the two Euston Lodges, both Grade II Listed structures (UID: 477262). (see Figure 1 below) The western group of railings extend from the south-west corner of Euston Square Gardens, at the junction of Euston Road and Melton Street to the west lodge and north of the lodge along the bus access road. The west garden group of railings incorporates two piers of the same distinctive form as those in the east garden. The piers are solid, semi-circular headed and resemble ancient stelae (way or commemorative markers). (See Figure 2 below).
- The western railings extend along the Euston Road for approximately 89.13m, ending at the south-western corner of the west lodge. (Figure 2 below) Other archival images show that the original arrangement was different. (Figures 11 and 12 below) The railings curved to enclose the Euston Road lodge frontages and extended to the southeast and southwest corners of the west and east lodges, respectively. Although the railings to the north of the lodges have been re-aligned, they apparently meet the rear (north) elevations in the same locations as previously. From the north-eastern corner of the west lodge the railings extend north for 16.56m terminating at another round headed pier opposite the Grade II\* Listed War Memorial. The run of railings along the Euston Road and the section running north from the lodge (i.e. the western group) have a combined length of approximately 105.69m.
- 2.2.3 The railings to the east side of Euston Square are slightly more extensive. At the north-eastern corner of this side of the square the railings begin at another round-headed pier. A set of

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modern, unlisted railings also connect to this pier and run west along the northern edge of Euston Square. The listed, historic railings run south for approximately 28.44m.

- At the south-eastern corner of the Square there is gap in the railings where a pedestrian path leads north-west across the Square to Euston Station. The railings continue in an unbroken run of 79.25m westward where they turn a corner on the eastern side of the central bus access route and connect to the eastern lodge on its southern façade. Beyond this, to the north the railings continue for 16.72m terminating at a pier.
- 2.2.5 The landscaped garden setting of the railings has changed substantially since their original installation. The ad hoc addition of utilities and other boxes, formal and informal signage has a negative impact on views of the railings, especially along Euston Road, as seen in Figure 2.

#### Description of railings – form and assembly

- 2.2.6 Together the railings on the east and west sides of Euston Square Gardens comprise approximately 230m (in length) of cast iron panels that separate the grassed area of Euston Square Gardens from the pavement. There are 169 panels in total: 66 in the west side of the gardens; 24 to the north of the lodges (including west and east sides of access road); and 79 panels in the east gardens. See Table 2 below which sets out the types and numbers of each type.
- The railings apparently date from c.1870 but have been substantially altered since they were first erected, with the loss of gates and gate piers originally positioned between the lodges, and re-alignment of the railings to the north and south of the lodges, to accommodate alteration of the central access road. The railings adjoin the stonemasonry elevations of the two lodges (north and south walls) in Euston Square Gardens. On the west lodge's north side, near the northeast corner, bars or lugs on the sides of an iron post are set into the stone in two places; an iron gate closes onto this post. On the east lodge's north side, near the northwest corner, the bottom and top rails are let into the stonework. (See drawings in draft in Appendix B) The gates adjacent to the lodges' north elevations appear not to be part of the original scheme. Within the gate openings the remains of vertical palings are visible where they have been cut flush with the top of the cast iron plinth.
- The railings consist of panels, each with palings set into a moulded cast iron base or plinth. The palings are round in section, are set through the top and bottom rails and have spearhead finials. Beneath the bottom rail there is an additional moulded bar between each paling, and the top rail has small conical spikes positioned to correspond with the short, plinth level bars. Panels can be identified by joints in the moulded plinth; these joints are either open or readily visible. (See Figures 15 to 18 below for arrangement.)
- 2.2.9 The panels are consistent in size and arrangement. Variations occur where alterations have been made, most notably to the north of the lodges, where the railings have been cut and realigned to follow the access road. In general, the straight runs of railings are formed of panels of two varying types and sizes, which were apparently designed for alternating positions, as in

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the current arrangement. (See Figure 6) The longer panel is approximately 1.52m in length and has 10 spear headed palings. The other type of panel is shorter, at approximately 1.25m in length, and is set into a single T-shaped base casting. The base section projects to the rear (into Euston Square Gardens) and incorporates an iron bracing rod or backstay, to provide support. These shorter panels have 6 spear headed palings and a central, slightly thicker and taller paling to which a backstay is attached. The larger, central paling of the shorter panel is moulded, and has a decorative finial in foliate form, possibly a stylised version of acanthus leaf, a classical motif commonly used in neo-classical buildings for example on the nearby St Pancras New Church at the junction of Euston Road and Upper Woburn Place. (See Figure 8)

- There is a third variant type of panel, a curved section which occurs on the corners of the Square (SW and SW) and at the corners in front of the lodges. This is the longest section of the various panel types. It was formed with a single plinth section and 13 of the spear-headed palings. There is also a curved version of the T-shaped panel, again with 6 spear-headed palings. (See plan drawings in Appendix B and Figure 4)
- 2.2.11 There are 6 piers in total and these have all been repositioned. The piers are square in plan and decorated with a row of 5 rosettes, set into recessed panels on their two principal faces and framed by a continuous perimeter moulding. (Figure 5) Similar rosettes can be seen on the door architraves of St Pancras New Church located to the southeast at the junction of Euston Road and Upper Woburn Place. In both these cases the rosettes are stylised, unlike the more naturalistic Tudor roses which also differ in having five inner and five outer petals, fewer than the classical rosettes. St Pancras Church was built c.1820 in a Greek neo-classical style, based on two ancient Athenian buildings the Tower of Winds and the Erechtheion on the Acropolis. The railing finials feature classical motifs spearheads, which were a common feature of military trophies, and acanthus leaves, in this instance in a stylised, simplified form. Matching finials are visible on the short section of historic railings located on the south side of Endsleigh Gardens, at the east end of this road opposite St Pancras Church.
- The piers are designed to resemble ancient stelae commemorative or way markers which often bore decrees and were normally made of stone rather than metal. The Rosetta stone, one of the most famous artifacts in the British Museum, is a fragment of such a stele. Brought to London from Egypt in 1802 when it passed from French into British possession, the Rosetta stone and its decipherment in subsequent decades generated considerable public interest. In summary, the railings and especially the gate piers constitute an example of how the 19th century archaeological discoveries in Egypt, Greece, Persia and ancient Mesopotamia had a wide influence on all aspects of European culture, and particularly on architecture. It is within this context that the railings sat alongside the lodges and the Doric Euston Arch, prior to its demolition in the early 1960s.
- 2.2.13 The railings are of cast iron, including the moulded base or plinth. Some elements may be of wrought iron; this will be confirmed by close range inspection during and after dismantling. Joints between the component parts of the railings are visible, most notably in the plinth

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(base) moulding and between the upper and lower rails where joints are often open or past repairs have failed. (See Figure 21)

Apart from the backstays, the nature of any other support for the railings when they were first installed, is uncertain. Concrete is visible in places at the foot of the cast iron plinth and at the piers. It seems likely that a masonry or possibly a mortar (concrete) base was constructed prior to installation. It is also possible that the hollow centre of the cast base (plinth) has been filled with concrete, either originally or during past relocation work, to stabilise the railings.





Table 2 Railing panel types and quantities

Railing / Panel Type	Quantities	Location and Quantities			
Description and approximate	(by panel type)	(by area)			
dimensions (length x depth)	(by paner type)	West garden	North of Euston Lodges*	East garden	
Long, straight section	76	29	12	35	
(c.1.5m x o.3m)					
Short straight section with back stay	68	26	10	32	
(c.1.2m x o.6m)					
Curved section – long (at corners)	9	4	-	5	
(C.2.1 X 0.4m)					
Curved section – shorter (at corners with back stay)	11	6	-	5	
(c.1.25m x o.7m)					
Other, short sections – at ends adjacent gate piers and lodges	5	1	2	2	
(cut, shortened in past relocation)					
Varying dimensions / lengths					
Total Quantities (Panels)	169**	66	24	79	
Gate piers	6	1	2	3	
(o.6 x o.6m)					

#### Notes:

See drawings in Figure 18 and Appendix B for arrangement of railing panels.

<sup>\*</sup>Includes railings located to north of east and west Euston lodges; these have been cut at the base in places to permit re-alignment during past relocation work.

<sup>\*\*</sup>This figure is total number of historic railing panels currently in Euston Square Gardens.





Figure 1 The view towards Euston Square Gardens, looking across Euston Road from Friends House



Figure 2 The south-west corner of Euston Square, showing railings partly obscured by newspaper stands and services



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Figure 3 The pier in the south west corner of the western group, rear (gardens) elevation



Figure 4 The western group of railings, abutting the south-western corner of the west lodge  $\,$ 



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Figure 5 Detail of pier at the southeast corner of east gardens, looking east.







Figure 6 The rear elevation of the railings facing into Euston Square illustrating backstay supports

(As seen on the eastern group of railings looking west to the Euston Lodges



Figure 7 The rear of a backstay panel in the western group of railings, looking west



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Figure 8 Foliate and spear head finials in the eastern group of railings looking north



Figure 9 The step in the railings at the west end of the eastern group, looking north



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#### 2.3 History and development of the site

- 2.3.1 The area around Euston remained undeveloped open land until the late 18th century. The land surrounding London had comprised estates, owned by the landed gentry who gradually sold off their property to speculative developers. A map created by Edward Mogg c. 1806 (Figure 10 below) shows the streets and blocks laid out to the north-west of Russell Square, but before the construction of buildings. The Euston Road was at this point known as "the New Road from Paddington to Islington", with Somers Town to its north. (see Figure 10 below) An open area named as a nursery can be seen on the southern side of this thoroughfare and this corresponds to what would become Endsleigh Gardens. Opposite this area the space that would become Euston Square is open except for a row of buildings called Southampton Place.
- 2.3.2 C&J Greenwood's Map of London (1824-26) shows the former nursery amalgamated with land on the north side of the "New Road" (now Euston Road) to form Euston Square. (see Figure 11) Bisected by the "New Road", Euston Square appears on the map in the same style as nearby Gordon and Tavistock Squares and as St James's Chapel burial ground in green with details suggesting plantings and a perimeter boundary, possibly railings. Although it seems probable that the square had railings at this stage, it is unknown if any of these were retained in subsequent redevelopment. Given the significant alterations made to the area in the following decades with the arrival of the railway, this seems unlikely. By this stage Euston Grove had been established north of Euston Square and would be extended south later to form the central approach road to Euston Station (currently the bus access road).
- 2.3.3 Parliament gave the London and Birmingham Railway (L&BR) authority to build a railway line between the two cities in 1833. The L&BR employed George Stephenson and his son Robert as engineers for the line. By 1835 authorisation had been given to build the terminus at Euston Square and passenger services were running by 1837. Shortly after the opening of the station, a Doric gateway was constructed to the design of Philip Hardwick. Referred to by various names, including the Propylaea after the entrance to the ancient Acropolis in Athens, but commonly known as the 'Euston Arch', this monumental structure in the ancient Greek (Doric) style formed an impressive gated entrance to the station. <sup>1</sup>
- 2.3.4 The London and Birmingham Railway also built hotel accommodation on land to the south of the new Doric gateway acquired from Baron Southampton in 1839. Two new hotels were constructed either side of Euston Grove. The next substantial change on the site was the creation, c.1870, of a monumental approach on a north-south axis from the station entrance (Euston Arch), extending Euston Grove south and bisecting Euston Square Gardens into west and east sections. The two Euston lodges designed by J B Stansby were installed at this point

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<sup>&</sup>lt;sup>1</sup> For history of railway development see <a href="http://www.british-history.ac.uk/survey-london/vol21/pt3/pp107-114">http://www.british-history.ac.uk/survey-london/vol21/pt3/pp107-114</a> (Euston Station and railway works', in Survey of London: Volume 21, the Parish of St Pancras Part 3: Tottenham Court Road and Neighbourhood, ed. J R Howard Roberts and Walter H Godfrey (London, 1949), pp. 107-114.





with ornate iron gates and a statue of Robert Stephenson centrally positioned along the main north-south axis between the two lodges and in front of the railings. An underpass was built below the new road just to the north of the lodges, linking the west and east gardens. This underpass is now blocked at both ends and the blocked openings are buried with only the upper sections visible above ground level. By the early 1880s the two hotels had been consolidated into one and a wing was constructed over Euston Grove, which blocked the view of the Doric Arch from the Euston Road, with wide ground level openings for traffic, corresponding to those of the arch behind it.

The exact date of fabrication, original location and extent of the railings remain uncertain. They are of the same design and arrangement as the railings located immediately in front of the Euston Arch, as they appear in late 19th century photographs.<sup>2</sup> (See Figure 14 below) The distinctive stele-like gate piers in these photographs are unmistakeably the same as those that survive in Euston Square Gardens. It is unknown if the existing railings incorporate any earlier elements from the 1830s station development, or if new sections were made to match the existing, possibly earlier ironwork, during the c.1870 remodelling of the square. Alternatively, the railings may belong entirely to the c.1870 scheme. It seems likely they were introduced at this stage as part of the monumental Euston Grove station approach.

#### 20th century alterations to the railings and their site

- 2.3.6 There were numerous 20<sup>th</sup> century alterations to the railings and Euston Square Gardens. The following is a summary of the principal changes in chronological order.
  - a. The War Memorial was installed on Euston Grove in 1921, designed by Reginald Wynn Owen (1876-1950), architect to the London & North Western Railway Company, to commemorate railway employees who lost their lives in World War I. The installation of the structure, which is listed grade II\*, entailed widening the road to the north of the lodges. The railings in this area were apparently altered at this point to accommodate the new road alignment.
  - b. The gates which spanned the entrance to Euston Grove (at the lodges) were removed prior to the Second World War, perhaps because they proved unsuitable for motorised vehicle traffic.
  - c. Some damage occurred to the area during the Blitz of World War II. As can be seen from the Bomb Damage Map (Figure 9 below), Euston was not severely damaged in comparison to other areas of London. However, the terraced houses to the north of the gardens were affected especially, to the northeast. Post war clearance of heavily

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<sup>&</sup>lt;sup>2</sup> See J Christopher, *Euston Station Through Time*, cover photograph and others dated to late 19<sup>th</sup> century in electronic edition, 2013; and English Heritage images online at www.viewfinder.english-heritage.org.uk, ref.CC97/01301, date taken 1870-1900.





damaged buildings left gaps in the vicinity of the gardens, prompting later redevelopment in the 1960s to 1970s.

- d. Aerial photography from 1946 shows the western side of the gardens with large sections of the railings missing along the Euston Road and Melton Street. The reason for their removal at this point is unknown; this could conceivably have been done for reasons related to the war effort to protect historic fabric from bomb damage, to open up the central garden area for a specific (albeit unknown) purpose, or to use the railings as a source of metal (iron).
- e. The 1960s brought substantial changes to the site as British Rail demolished the former station and expanded the new station to the south. The Euston Hotel and the buildings on Euston Grove were demolished, as well as the Euston Arch.
- f. The new Euston station opened in 1968, and a modernist office building was completed in 1976, forming a screen blocking the view of the station from Euston Road. This is perhaps an echo of the 1881 expansion of Euston Hotel, which similarly blocked the view of the station.
- g. Further changes were carried out in 1974-1978 when the office complex on Euston Station's piazza was constructed. The eastern half of the road to the north of Euston Square was widened to create the bus station, while the western half of the piazza, immediately north of Euston Square, was built over with an office tower, now Grant Thornton House. The railings along the north side of the east garden were dismantled to make way for the bus station and re-erected on the Euston Road frontage of the west garden.<sup>3</sup>
- h. New entrances were created to the gardens at the south-west and south-east corners to guide the public along diagonal footpaths across the gardens from Euston Road towards the entrance to the piazza and the bus station. Whereas previously the railings had followed a continuous alignment around the perimeter of the gardens, the quarter turns at the eastern and western extremities of the Euston Road frontage were staggered to suit the diagonal alignment of the paths.
- 2.3.7 Drawings by the GLC (Greater London Council) Department of Architecture and Civic Design dated 1975 to 1978 illustrate schemes to relocate the railings in connection with the construction of the bus station to the north of the gardens.<sup>4</sup> The GLC drawing titles indicate the intended scope of work and extent of railings at that stage, as follows. (See GLC drawings reproduced below in Figures 15-20)

<sup>&</sup>lt;sup>3</sup> See detailed drawings – Euston Square Railings, reference number Acc/3499/EH/o2/122/o9, 33 drawings, plans, dated 1975 - 1980 which record the railings and alterations made to them, held in the London Metropolitan Archives. These show how the constituent parts of the railings were assembled, the joints between various elements and their dimensions (in imperial measurements).

<sup>&</sup>lt;sup>4</sup> These drawings are part of an incomplete numbered set of plans held in London Metropolitan Archive. Catalogue number ACC3499/EH/o2/122.





- Drawing HB2843 no.1 "Euston Square Railings Existing", dated, Sept 1975. A small thumbnail sketch plan (Figure 16 below) shows that at this stage the only railings in the west garden were located to the north of the west lodge. The east garden was completely enclosed by railings including 5 gate piers and 2 gates: a gate with piers on the rear (north) elevation, another gate with 2 piers on the east (Eversholt Street) side and a single pier at the southwest corner, near the east lodge.
- Drawing HB2843 no.2 "Euston Square Railings Suggestion for Dismantling", dated Sept 1975. This indicates cutting through the railings vertically, following the position of joints in the base (moulded plinth) of the railings. (See Figure 18 below) Site inspection confirms the railings were cut and dismantled in vertical panels, as shown on this drawing.
- Drawing HB2843 no.4 "Euston Square Railings Re-Siting for Bus Station", dated 9/2/1976. This is a schematic plan, not to scale, which shows the proposed rearrangement without detail. It shows railings taken from the east garden (north side) and repositioned in the west garden. There is an instruction "Existing railings retained here" with an arrow pointing at the south (Euston Road) railings. (See Figure 20 below)
- Drawing HB2843, "Euston Square Railings Proposed Redistribution", no.7B, Nov 1977. (Figure 19) This is a more detailed plan at 1:200 scale which shows the railings repositioned with railings taken from the north of the east garden and reintroduced into the west garden, along Euston Road and the southwest corner. This plan drawing also shows that the intention was to reposition the railings further back from Euston Road; the existing and proposed positions are contrasted in different colours. One copy of this drawing in the LMA is marked "SUPERCEDED" and the rearrangement was not carried out as shown.

These drawings provide useful but somewhat conflicting and confusing information. The drawings have been annotated in pencil with sketches of curved railings and calculations of the numbers of railing sections and types, indicating the designers struggled to fit these curved sections into their scheme. The railings have not been repositioned exactly as shown on the plans. This is possibly due to the difficulty in resolving the problem of a limited number of curved railing sections and how to integrate these in the proposed arrangement. One plan dated 1976 states the railings along the east gardens (Euston Road elevation) were to be retained whilst another more detailed plan of 1977 shows the intention was to reposition all the railings. All the existing railings have been cut (and often repaired) at the points shown on the "Suggestion for Dismantling" drawing, which suggests they have all been dismantled and reinstated. It appears, however, that the railings on the Euston Road and Eversholt Street were reinstated on approximately their original alignment, albeit offset relative to the main elevations of the lodges. It is not entirely clear that the railings in the east garden have all been moved; it is possible that sections remain in their original positions.

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#### 2.4 Assessment of significance

- Together with the lodges, the railings constitute a significant link with the Victorian station which was lost to redevelopment in the 1960s and 1970s. The railings were clearly more extensive than at present. The photo of c.1898 reproduced below shows sections of railings with piers positioned in front of the Euston Arch. Comparison of early photographs and the GLC drawings of the 1970s indicates that panels and piers have been lost, apparently mainly in the mid-twentieth century.
- 2.4.2 The gate piers are distinctive and unusual for garden railings, and collectively the railings are an important visual reminder of the monumental approach to the station, which survives only in a short section between the War Memorial and the Euston Road / lodges and is consequently now difficult to read as the historical station approach. The form and decorative detail of the railings with piers reminiscent of ancient stelae, and motifs adopted from the classical canon (rosettes, spearheads and foliage) connect the railings to the earlier Victorian station and its setting.
- 2.4.3 The Euston Square railings are more elaborately detailed than other historical garden railings in the area, which typically consist of palings set in a stone base through a single upper rail. The designer responsible for the railings is uncertain. If they were contemporary with the lodges (c.1870), which seems likely, then J B Stansby, architect for the London and North Western Railway and designer of the lodges, may have been responsible. Gaps in understanding of the exact origin and date of the railings prevent more detailed assessment of their significance. The proposed recording and careful examination of the railings for relevant evidence set out in Section 4 below, including specialist historic paint analysis, may yield additional information.
- As illustrated in Figures 1 to 4 above, the railings feature prominently in views across Euston Square, especially from the south and east and in the vicinity of the lodges. The railings sit within the Bloomsbury Conservation Area (sub area 1) and Camden Council's 2011 review of this area Conservation Area Appraisal recognises the railings and surrounding views as significant. The influence of the classical style was significant in the Euston Station area and it was adopted by designers of later buildings fronting onto the square notably the Royal College of General Practitioners (listed grade II\*), the Wellcome Building (listed grade II, 1931-32) and Friends Meeting House (listed grade II, 1925-27). These buildings all contribute positively to the railings setting.
- The original setting of the railings has changed substantially, although the area within the perimeter railings retains its garden character to some extent by virtue of the trees and grassed areas. Euston Square Gardens has been considerably altered since the c.1870 remodelling of the square when the railings and lodges were installed on the axial route of Euston Grove (now the bus access road). The 19<sup>th</sup> century residential character of the setting has been lost, with large institutional or commercial buildings replacing earlier terraced

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houses. Euston Station's piazza and the bus station along the northern side of Euston Square both detract from the setting of the railings.

- 2.4.6 The GLC drawings of the 1970s produced in the context of the construction of the new bus station to the north of Euston Square gardens present somewhat conflicting evidence of how the railings were relocated and rearranged, as discussed above. It is unclear if they were all dismantled and repositioned, or if only sections were moved. One plan indicates that they were to be retained in their existing position at least on the south side of the east garden.
- The GLC drawings also clearly show how railings were dismantled in the 1970s, by cutting them into vertical panels. The evidence of this is readily visible by site inspection. Despite this extensive past alteration and damage, the railings are in relatively good condition, especially considering the metal is now exposed in many areas due to the loss of protective paint coatings from surfaces.

Figure 9 A scan of the Bomb Damage map of the area (London Topographical Society, 2005)

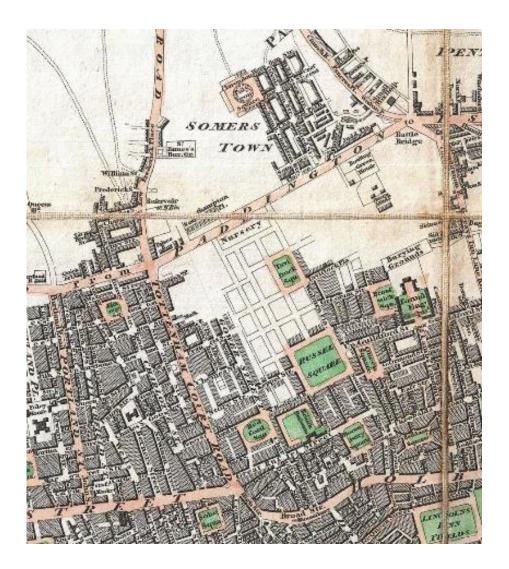
The bomb map shows the varying extent of World War II damage to structures around Euston Square Gardens. For example, purple colour indicates damage beyond repair whilst yellow signified blast damage. Euston was not severely affected in comparison to other areas of London.







Figure 10 Detail of Edward Mogg's map of London c 1808  $^{\rm 5}$ 



<sup>&</sup>lt;sup>5</sup> See https://commons.wikimedia.org/wiki/File:1806 Mogg Pocket or Case Map of London, England - Geographicus - London-mogg-1806.jpg. Available courtesy of Geographicus Rare Antique Maps, see <a href="https://commons.wikimedia.org/wiki/File:1806 Mogg Pocket or Case Map of London, England - Geographicus - London-mogg-1806.jpg">https://commons.wikimedia.org/wiki/File:1806 Mogg Pocket or Case Map of London, England - Geographicus - London-mogg-1806.jpg</a>. Available courtesy of Geographicus Rare Antique Maps, see <a href="https://commons.wikimedia.org/wiki/File:1806">www.geographicus Rare Antique Maps</a>, see <a href="https://commons.wikimedia.org/wiki/File:1806">www.geographicus.com</a>.





Figure 11 Detail of London Map by Neele and C and J Greenwood of 1830  $^{\rm 6}$ 



<sup>&</sup>lt;sup>6</sup> Detail of map: Josiah Neele, C and J Greenwood (1830) Map of London: Made from an actual survey in the years 1824, 1825 and 1826. Digital screenshot, map in public domain online.





Figure 12 Wood engraving of Euston Square garden railings soon after installation (Copyright City of London Corporation)



Figure 13 Photograph c.1870-1900 of railings and Robert Stephenson sculpture recently installed (reproduced by permission of Historic England Archive, image no.CC97/00265, General View of the Robert Stephenson Statue in Euston Square London)



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Figure 14 Photograph of Euston Arch in 1898 and railings in foreground of same form as Euston Square Garden railings (Copyright: Science and Society Picture Library, reproduced under licence. Photograph identification number 10666517)

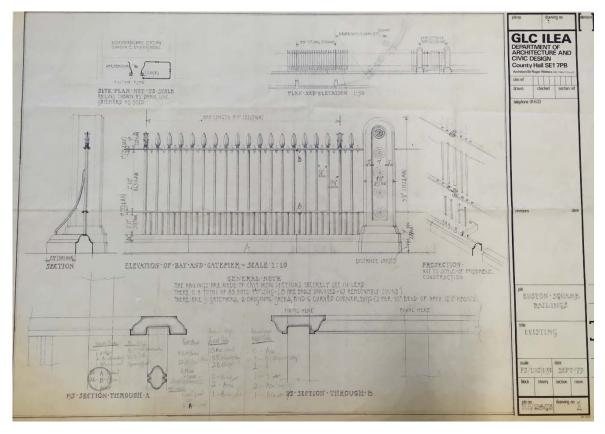
Note gate piers and railings located in front of the arch, which framed the opening. The gate piers formed part of the monumental station approach illustrated in the previous figures and were a visual link between the lodges and the arch. The rosettes on the railing piers echo the rosettes of the decorative gates set within the arch opening.







Figure 15 Drawing of Euston railings "Existing", by GLC, dated 1975 in collection of London Metropolitan Archive (Copyright City of London Corporation)



This drawing dated 1975 provides a detailed record of the railings as found at that time. It records that there were 83 bays, defined as sections between the principal palings capped with foliate finials, as well as 5 gate piers, 2 gates, and 6 curved corner bays. Of the 83 bays, 67 are described as "reasonably sound". There are currently 73 complete straight bays, 8 curved corner bays, and 6 gate piers. It appears that some sections were lost, notably the 2 gates, and a gate pier and two curved corner sections gained. It is difficult to account for these additional elements. They may have been missed out of the 1970s survey, salvaged during earlier work to the railings and retrieved from storage, or may have been made to match, although this last explanation seems less likely, considering the labour and cost involved in production of new iron work to match the existing.

Note the site plan to upper left showing extent of railings and position of gate piers as found in 1975; see detail of this in following Figure 16. This drawing and others from the 1970s illustrate how the designers struggled with re-location and re-alignment of the railings, to accommodate the new bus station and access route. The curved corner sections, and limited number of gate piers presented a challenge. (See pencil annotation in this drawing and Figures 16 to 20 below)

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<sup>&</sup>lt;sup>7</sup> Drawings by GLC of Euston railings in 1970s reproduced in this figure and on the following pages are held in London Metropolitan Archive, reference number ACC3499/EH/02/122/10 to ACC3499/EH/02/122/18.





Figure 16 Detail from GLC drawing showing extent of railings in 1975 (Copyright City of London Corporation)

Note that the railings extended further north, beyond the War Memorial at this stage, and formed a complete perimeter boundary round the east gardens but were missing on the west side, apart from the section extending north of the west Euston lodge.

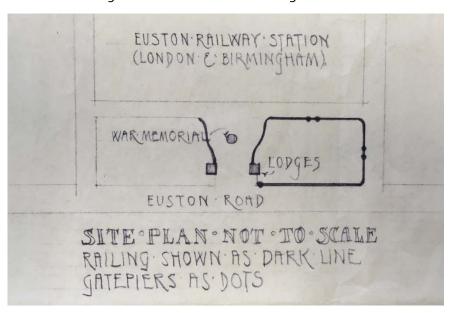
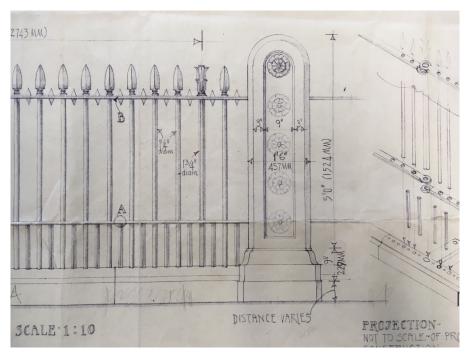


Figure 17 Detail from GLC 1975 drawing of gate pier and railings arrangement (Copyright: City of London Corporation)



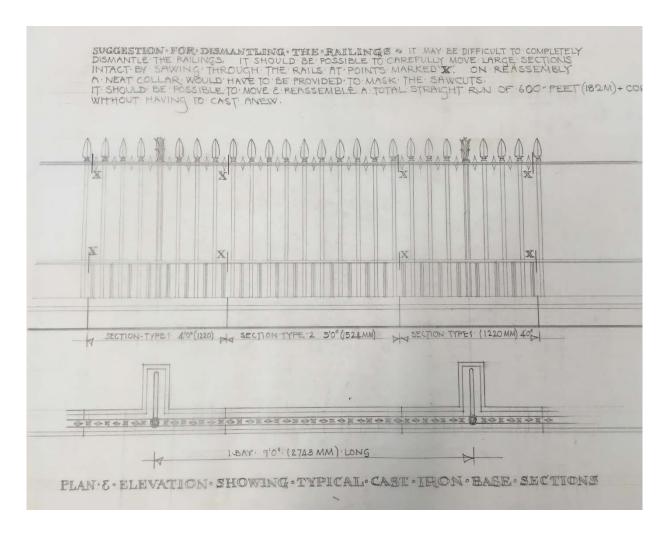
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Figure 18 Detail of GLC drawing dated 1975 and entitled "Suggestion for Dismantling" (Copyright City of London Corporation)

This drawing proposes dismantling in large vertical panels by cutting through the points marked X. Inspection confirms this was done – cuts and poorly executed (butt welded) repairs are visible in these locations on the existing railings. The instruction on the drawing to mask the cuts with a collar was not followed.

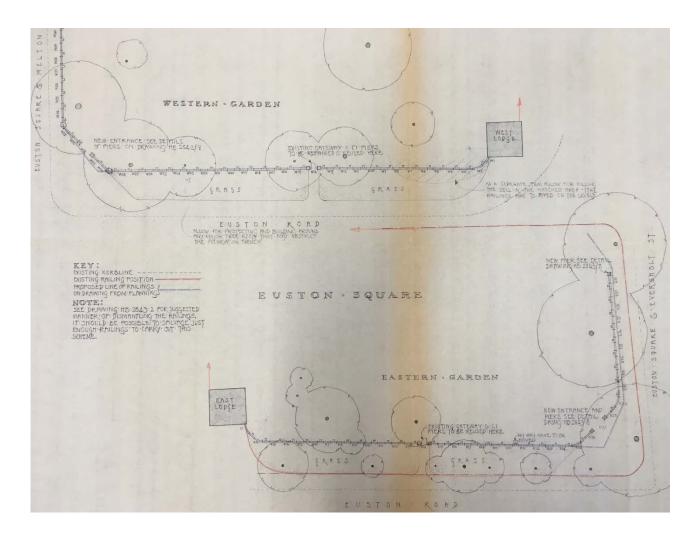


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Figure 19 Detail of GLC drawing dated Nov 1977 and entitled "Proposed Redistribution" of railings (Copyright City of London Corporation)



The rearrangement proposed in this 1977 GLC design drawing was not executed, at least not as detailed on this plan. There is a version of this drawing marked "SUPERSEDED" in the London Metropolitan Archive. The drawing notes a "foundation trench" for the west garden but no details are given for the foundations and the extent and detail of the support for the railings remain uncertain.

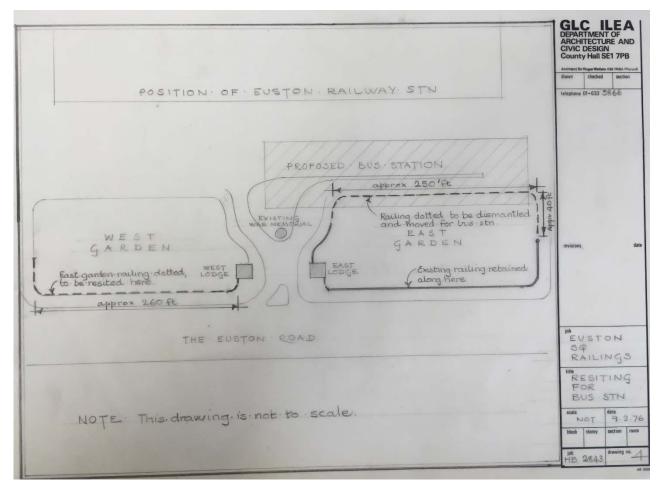
The plan on the following page indicates, in outline form, the scope of relocation work that was actually carried out. The dotted lines show where railings were taken from the north side of the east garden and re-positioned in the west garden. According to this schematic plan the railings were retained in their original position along Euston Road, and possibly along Eversholt Street, apart from at the southeast corner. Railings in the east garden consistently exhibit visible evidence of cutting, in the positions shown in the figure above with X marks. This evidence suggests all railings were dismantled in preparation for reassembly, even where they were to be reinstated along their original lines.

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Figure 20 GLC plan "Resiting for Bus Station", dated 1976 (Copyright City of London Corporation)



## 2.5 Condition and survival of significant features and fabric

In general, the railings are in reasonable condition, considering the extent of past alterations and the variable state of the protective paint. There are localised defects, which include typically fractures, joints where past repairs have failed, and loss of elements like finials which are vulnerable to impact damage and vandalism. In some places the railings appear to be inadequately supported and the nature of any foundations below ground level is unknown. To the north of the lodges a shallow brick foundation is visible, but this belongs to the later reconfiguration of the railings in this area. In general, fractures appear to be the result of past relocation and alterations and often occur at joints, and where the railings have been cut and subsequently repaired, welded and filled. Fractures and repairs at the positions shown on the drawing in Figure 18 above are ubiquitous.

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- 2.5.2 The railings in the worst condition, exhibiting the most extensive displacement, fractures and other defects, are those located to the north of the lodges which have been most substantially altered and realigned. Cuts are visible, most notably in the plinth moulding, and have apparently been done to permit the railings to follow the line of the widened road. The plan form of these railings, which follow an irregular curve, contrasts with the straight lines and regular corner curves of other sections. Fractures, displacement and loss of elements in these locations north of the lodges suggest that alterations were carried out without using traditional metalwork techniques and without providing adequate support for the repositioned railings.
- 2.5.3 The railings are painted black, although in many areas the paint has weathered or been lost exposing the bare metal surface. Although black is now the colour typically selected for external ironwork, other colours such as dark greens and greys were preferred for decoration of iron railings during the nineteenth century. There is graffiti in a few locations on the gate piers, notably at the southwest corner of the gardens and on the two piers to the north of the lodges. (Figure 3) The railing surfaces are chipped and pitted in many places. In some cases, this kind of relatively superficial damage has apparently occurred during past dismantling and handling, and due to general 'wear and tear' within a heavily used public garden. Where surface pitting is visible underneath paint, this may be the result of minor, past surface corrosion. Surface pitting and small voids may also result from the casting process.
- 2.5.4 Due to their location adjacent to busy roads, the moulded base sections of the railings exhibit extensive surface soiling. There are missing elements in places, notably finials which are vulnerable to snapping from impact damage. Where finials are missing the break reveals the solid form of the round palings. In contrast the base or plinth castings are hollow. This is evident at the open joints between plinth sections and where breaks and loss of small sections have occurred. Past repairs are widely visible, notably joints on top and bottom rails where past attempts at welding and filling with various materials have often failed. Original construction methods may have included lapped joints secured with bolts for the horizontal rails and screw fixings for finials. Details of this kind were not identified during survey but may survive and be concealed by paint.

<sup>&</sup>lt;sup>8</sup> English Heritage, "Fashions in painting ironwork" in: *Practical Building Conservation: Metals*, Ashgate, 2012, pp122-125; and Geoff Wallis, Personal communication and Lecture, West Dean College, Building Conservation Masterclass: Metalwork Conservation, 5-8 February, 2018





Figure 21 Lower section of railings with extensive loss of paint and open joints in moulded base, and cracks in lower rail

Note the open joints in moulded base and red areas on lower rail where past cuts were made, apparently to permit dismantling, and have been welded. The weld has failed in the red area on the right where cracking is visible.



Figure 22 Fracture at the collar joint of the lower railing (around the principal, central paling).

This is a defect noted in various locations which may be due to several factors including minor movement and settlement, and possibly mis-handling during past relocation.



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Figure 23 Detail of base to the north of the east lodge where base has been cut and realigned

Comparison with previous photograph shows that railings have been cut at base and lower rail, to form a slight angle, apparently to permit widening of the road. This photograph along with previous two illustrates the variable surface condition. There is extensive failure and loss of the protective paint coating in many areas, often down to the metal surface.







# 3 Proposed works to heritage asset

- 3.1.1 Euston Square Gardens (west side) will be used as the site of an interim taxi rank during the construction phase of HS2. There will be extensive work on various services in this area, including alteration of existing and installation of new services to supply the new HS2 terminus. An electrical sub-station will be built on the south side of the west garden. Some sections of the railings will therefore be dismantled, removed from site and stored in a secure off-site location during the construction phase. As far as safely and practically possible, other sections of railings will be retained in situ and protected, as necessary, during construction works. See Section 5 below on Protection, Transport and Storage.
- 3.1.2 Recording and Labelling. Each railing panel will be labelled with its reference number and its location cross referenced to record drawings during the dismantling process. A record will be kept of all dismantled railings and will include a note of their condition, any relevant information of archaeological or historical interest, for example maker's marks, original fixing and other iron working methods, incorporation of wrought iron or other metal within the railing panels.
- 3.1.3 All work to the railings dismantling, labelling, handling, transport will be carried out by a specialist historic metal work sub-contractor with proven skills and experience of work of a similar nature carried out on other historic iron railings.
- 3.1.4 The railings will be retained in a secure store until needed for re-assembly. The secure store is:

  O'Hagan Transport, Cell Park Farm, Markyate, AL<sub>3</sub> 8QH. The process for the re-assembly of the component parts during re-erection of the railings will be addressed in a separate, subsequent Method Statement document.

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# 4 Specification for recording

#### 4.1 General standards

- All recording work (written, drawn and photographic) will be undertaken in accordance with Historic England guidance for the recording of historic buildings (*Understanding Historic Buildings: A Guide to Good Recording Practice*, 2016) and in line with HS2 Technical Standards. The HS2 Technical Standards informed the development of this method statement but are not material to or required by the Heritage Agreement. Sections 4.2 and 4.3 specify the recording methodology for the asset and its constructional details.
- 4.1.2 The sub-contractor shall archive resulting reports and supporting data and information in accordance with HS2 Ltd's standard procedures. A digital copy of the report will be provided to the local authority and made available to the public through the Archaeology Data Service (ADS) and the Greater London Historic Environment Record (GLHER). The report will include the data gathered and outputs created as a result of the recording exercise.
- 4.1.3 Historic environment investigations involving the production of maps shall adhere to a standard approach to GIS deliverables as set out in the relevant HS2 Ltd GIS Specifications. HS2 Ltd's standard templates for maps will be used. Mapping and spatial data deliverables will conform to a standard approach to ensure consistency across all the contracts.
- 4.1.4 For written accounts, HS2 Ltd's standard templates for reports will be used. A final copy will be saved in PDF format for maximum readability.
- 4.1.5 In accordance with Historic England's 'Understanding Historic Buildings: A Guide to Good Recording Practice' (2016), the standards for drawings are as follows:
  - Drawings should include the following basic information: the name and address of the
    building, the civil parish and county, London Borough or unitary authority, and the
    National Grid Reference; the name of the individual(s) responsible for the drawing,
    and for the survey, if different; the date of the survey; and the name of the originating
    body or institution;
  - A drawn metric scale, in addition to a stated scale (for example 1:50) should be included on the drawing. A drawn scale will remain accurate if the drawing is reproduced at a smaller scale;
  - Drawings derived from a measured survey should be produced by Computer-Aided Design (CAD) and saved in PDF file format;
  - Drawings should follow the standard conventions identified by Historic England in 'Understanding Buildings: A Guide to Good Recording Practice'; and
  - Dimensioned site sketches of constructional details should be scanned and saved in digital format, preferably as TIFF files, to prevent compression of the image and





resultant loss of data.

- 4.1.6 In accordance with Historic England's 'Understanding Historic Buildings: A Guide to Good Recording Practice' (2016), the standards for photographic records are as follows:
  - Photography should be carried out in digital format, using a high-resolution camera with sensors exceeding 10 mega pixels;
  - Images should be shot in RAW format on a DSLR camera and converted to an uncompressed file format (TIFF);
  - Where no alternative is available, a compact digital camera may be used which allows the override of automatic features and production of high-resolution JPEG files;
  - Where possible, a tripod and shift lens should be used to help minimise distortions in elevational photography. The camera angle should be levelled to avoid distortions;
  - A lens causing the least distortion should be used, usually a standard or telephoto lens. Wide-angle lenses should be avoided except where required by site and building constraints (for example, interiors will usually require wide angle lenses);
  - Use of a tripod will minimise the risk of blurring from camera shake and will aid with image composition and framing;
  - All photographs should be in focus, with an appropriate use of depth of field;
  - Photographs should be adequately exposed in natural light or by adequate artificial light where required. Care should be taken as to the time of day and direction of lighting. Often a bright but overcast day can provide suitable lighting to avoid over- or under-exposure;
  - For interior photographs, electronic flash may be used. An off-camera source will give
    greater relief and a better result, and a bounced light from a reflector or white ceiling
    will produce a more even light than a direct source. Natural light may also provide a
    suitable source. Camera-mounted electronic flashes should be avoided where
    possible;
  - The white balance setting of the camera should be checked to ensure colour distortions are not introduced in the record;
  - When photographing details, a clearly marked and suitably sized scale should be positioned parallel to one edge of the photograph;
  - Standard colour cards may be included in the frame when photographing details to ensure an accurate record of the colour balance is made;
  - When recording the general appearance of constructional details, photographs should be taken at close proximity and further afield to relate constructional details to





locations;

- Any metadata saved (including date) should be accurate to the record taken; and
- When creating prints from digital files, photographic printing paper, preferably a silver halide paper, should be used, and a resolution of 300dpi should be maintained.

## 4.2 Recording the heritage asset (railings and piers)

- The sub-contractor will produce a report, which will constitute the record alongside archive material and will include:
  - The rationale for the recording;
  - An outline of the methodology and techniques employed;
  - Details of engagement and any external parties involved;
  - A written description containing the required information, as specified in Table 3;
  - · A brief summary of elements of the heritage asset to be affected;
  - Historic and recent maps, as specified in Table 3;
  - Photographic material, within the body of the report and in appendices, as specified in Table 3;
  - Maps, plans and figures to illustrate key points, as specified in Table 3; and
  - Other material or outputs that may have been collated.
- 4.2.2 Historic England (Understanding Historic Buildings: A Guide to Good Recording Practice, 2016) has defined an approach to historic building recording, identifying a range of techniques and providing guidance on when these may be applicable. Descriptions of the four levels of recording, plus photographic study, and their specifications, are set out in Section 5 of the Historic England document.
- 4.2.3 A **Level 3 analytical record** will be required for the railings around Euston Square Gardens. This has been specified in accordance with guidance in the Historic England document, which identifies that assets requiring dismantling prior to re-erection will require either a Level 3 or Level 4 record. In this instance, Level 3 has been selected because the railings are a Grade II listed asset, requiring detailed understanding of their history, fabric and significance, in order to sensitively dismantle and later reinstate the railings.
- 4.2.4 Depending on the extent of removal of railings, it may be necessary to include detailed drawings of each typical section, sufficient to permit reproduction of the historic ironwork, in case this should be required in the future. If all railings are to be removed from site, these more detailed drawings will be required. In this case drawings would be at the appropriate scale (ranging from 1:5 to 1:20) to capture all detail (mouldings, joint locations and types) that

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would be required to produce matching railings using traditional metal working techniques, and would be required for the following railing types (as listed in Table 2 above):

- 1. Long straight panel
- 2. Short straight panel with backstay
- 3. Curved corner section (long)
- 4. Curved corner section (short) with backstay
- 5. Gate pier

#### 4.2.5 The Level 3 record will be comprised of the following elements:

Table 3 Specification for Level 3 heritage asset record

Type of record	Specification for record
Drawings	A site plan should be prepared at a scale of 1:1,250 relating the listed railings to the landscape features and other listed structures in Euston Square Gardens. The site plan should identify the surviving historic railings and piers in the following areas: two stretches along the south side of Euston Square Gardens; two stretches with associated iron gates above the underpass walls along Euston Grove; and one stretch on the east side of the gardens.
	Two measured and dimensioned plans of the railings, one of each half of Euston Square Gardens as existing, at a scale of 1:200. Plan drawings should indicate where section breaks occur between sections and components of the railings, and should include the corresponding reference numbers of each section.
	Where the railings are to be removed and stored for the duration of the construction period, these sections should be recorded by elevation drawings at a scale of 1:20. Elevation drawings should be used to record the assembly and to identify the reference number of each panel, and a corresponding brass or aluminium identification tag should be attached to each panel of railings prior to disassembly, to aid in re-erecting the railings. Similarly, if piers are to be removed, these should be drawn, numbered on the elevation drawings and tagged with aluminium or brass tags tied to the piers. Elevation drawings should also note any areas of breakage in the iron, requiring repair before reinstatement of the railings.
	As outlined at paragraph 4.2.4 above, if all railings (and representative types) are to be removed, detailed drawings of all railing panel types will be produced at the appropriate scale 1:5 to 1:20 to permit reproduction using traditional metal working techniques. This would include all typical railing types / panels as listed at 4.2.4 and in Table 2 above.
	The drawings described above can be included in the Addendum to the Level 3 report (see Section 4.3.3), although referred to in the Level 3 report.
	A site plan (or plans) should be prepared at a scale of 1:1,250 identifying the location and direction of accompanying photographs of the railings.
Photography	Photographs should be taken of the railings and piers which are to be removed. These should be made straight on and carried out sequentially, recording each section of railings within each frame. Photographs should be made of both the front (road-facing) and rear (garden-facing) elevations of the railings. These photographs should be at close range, containing the whole of one section (panel to be dismantled) within each frame.
	Axial photographs should be made of each of the three exposed sides of the piers (the front and rear elevations and end elevations), and two photographs should be made of the side of the piers adjoining

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the railings, at oblique angles. These photographs should be at close range.

Oblique photographs should be made facing the backstays and their bases, which extend into the gardens at an angle perpendicular to the main sections of railings. These should capture the joints between the longer palings and the top and bottom rails where possible. These photographs should be at close range.

Photographs of the railings and piers should be made from the War Memorial to locate the railings within their wider setting.

Further photographs will be made that illustrate the original design intentions of the designer of the square and the role of the railings within it, where these are known from documentary sources or can be inferred from the built form of the square and the setting of the gardens. This should include an axial view of Euston Grove centred on the War Memorial, capturing the railings on either side of the road. Where historic photographs are found, current photographs should also be taken from the same location as in the historic photographs, for comparison purposes.

Photographs should record the current setting of the railings, including how the railings relate to the footways, roads, surrounding buildings and gardens, as well as detracting elements, such as their relationships with more recent contrasting features.

Any visible dates, inscriptions or maker's marks should be recorded with a photograph, and its location identified on a corresponding site plan and elevation drawing. A transcription of the writing should be made if it is not completely legible in the photograph.

Detail photographs of the heads of the railings and major fractures and defects should be made at close range.

#### Laser scanning

Laser scanning is to provide further survey data and to provide a rapid record of condition, including losses, substantial defects. This may also assist with capture of any historic jointing and fixing details that survive.

Laser scanning will be used to produce the survey drawings specified above in the 'Drawings' section of Table 3.

#### Written account

The precise location of the railings as an address and in the form of a National Grid reference. This will refer to the location identified on the National Heritage List for England. A supplementary description will be required to identify the location of the historic railings as they exist at present.

A note of any statutory designation (that is, Grade II listing of the railings and piers, inclusion in the Bloomsbury Conservation Area and inclusion of Euston Square Gardens in the London Squares Preservation Act 1931).

The date when the record was made, the name(s) of the recorder(s) and the location of any archive material.

A list of the complete final record content, including all drawings, photographs and sketches with numbers and short description of these.

A summary statement, summarising the form, function, date and sequence of development of the railings and piers, and outlining the findings of the record. The names of the designer of the square when the railings were erected (and any subsequent designers altering the railings) and the name of the iron foundry where the railings were produced should be given, if known.

An introduction briefly setting out the circumstances in which the record was made, its objectives, methods, scope and limitations, and any constraints. The introduction will explain that the record is a Level 3 record of the railings and piers around Euston Square Gardens. The introduction will include acknowledgements to all those who have made a significant contribution to the making of the record,





or who have given permission for copyright items to be reproduced. There will be a discussion of the published sources relating to the railings and piers.

A historical summary; this will include an account of the history of the railings and piers, as given in published sources, an analysis of historic map evidence (map regression) and a critical evaluation of previous records of the railings and piers, where they exist. This will be illustrated where appropriate with cross references to any maps, photographs and other material included in, or appended to, the report and other material consulted. Key historic maps illustrating the main changes over time will be included in the record.

A detailed description of the form of the railings and piers, including structure, materials and decoration, together with the evidence supporting this analysis. This should include a description of the type of material from which the base of the railings is constructed. An analysis of the past and present purpose of the railings and piers should also be given, with the evidence for these interpretations. This should also include analysis of the successive phases of alteration to the railings. Any evidence for the former existence of other demolished or removed railings should be recorded, including a discussion of the loss of the railings on the south and west sides of the gardens. If it is possible to identify sections of railings dating from after the original railings scheme, these should be identified.

An analysis of the significance of the railings and piers. This will seek to identify both the significance of the railings and piers themselves, as well as their significance as part of the development of Euston Square Gardens and Euston Square. It will identify the gardens' and square's contribution to their significance (how it contributes) and level of contribution to its significance (the degree to which it contributes). The analysis of significance can also set important aspects of the railings and their association with the gardens in a regional or national context.

A conclusion setting out the findings of the assessment.

Full bibliographic and other references, or a list of the sources consulted.

## Historic paint analysis

It is proposed that specialist historic paint analysis be carried out. This is to include: examination of surfaces; taking of microscopic samples of paint layers for assessment; analysis of selected samples (cross sections); illustrated report on relevant samples to show original, historic paint layers, as far as these survive and can be sampled.

This specialist report will be included as an Appendix to the final record document.

## 4.3 Recording constructional details

- 4.3.1 The level of recording of the constructional details of the railings and piers should be sufficient to enable reinstatement. The recording of constructional details should also aim to identify any defects in the ironwork which would require attention prior to reinstatement. Laser scanning may be used prior to the railings being dismantled, and this information will be incorporated into the report.
- 4.3.2 For the record of the constructional details of the railings and piers, written descriptions should accompany any visual records, where the visual record provides incomplete data. For example, fixing materials (e.g. red or white lead putty or other traditional caulking, as well as modern polysulphide or other mastic) and joint types (i.e. hot-poured lead sockets, purposemade holes in rails, bolted and lapped joints) will all require a brief written description, as photographs and drawings are unlikely to adequately describe the fixing methods. Written

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descriptions will take the form of notes to be archived with the record and may also include hand-written annotations on photographs or drawings, provided they are clearly legible.

- 4.3.3 The sub-contractor for dismantling shall produce an addendum to the Level 3 heritage asset report, which will constitute the record alongside archive material and shall include, depending on the nature of the record:
  - Copies of elevation, section and plan drawings, annotated where relevant to show
    construction details revealed during dismantling, and with corresponding reference
    numbers of the railings (in vertical panels), to aid in reconstruction;
  - A written description containing the construction details as specified in Table 4;
  - Photographs of constructional details, as specified in Table 4;
  - Sketches of constructional details, as specified in Table 4; and
  - Identification of any constructional details requiring remedial action before reassembly, as specified in Table 4.

Table 4 Specification for constructional details record

Type of record	Specification for record
Drawings	Where the railings and piers are disassembled, elevation drawings (created as part of Level 3 heritage asset recording requirements above) should be used to identify the location of joints and the corresponding reference number for each section of the railings or piers (to be marked appropriately on the corresponding piece of the railings or piers with a brass or aluminium tag), to aid in reassembly.
	Some sections of the railings contain existing fractures; these defects should be noted on elevation drawings of the railings. If, during the process of disassembly, parts of the railings are damaged, this should be recorded on elevation and/or plan drawings to identify the location requiring repair.
	Where the railings are being disassembled, a drawing at a scale of 1:10 should be made to illustrate the constructional details including joints between component parts of ironwork. The railings are intended to be removed as whole panels, rather than individual components; all jointing (original bolts, pins, laps) and other constructional details are to be recorded, as well as any features of historical or architectural interest such as makers marks. the joint between sections of the upper rail and the joint between sections of the lower rail. A longitudinal section drawing and a transverse section drawing at a scale of 1:10 or 1:20 should be made of the base of the railings (including the bases to the periodic buttresses supporting the backstays), should any repairs or localised replacements be required.
	Elevation and plan drawings (created as part of heritage asset recording requirements above) should be used to note the location of any detail photographs or sketches of the railings and piers.
Photographs	Where the railings are being disassembled, photographs should be made of the constructional details of any original joint types that may be revealed. It is anticipated the two horizontal (upper and lower) railings were originally assembled using lapped joints secured with concealed bolts. Vertical palings or bars were traditionally inserted into holes within horizontal rails using mastic or putty based on linseed oil and lead which sometimes contained iron filings. The end of vertical palings was set into a socket in the base, accompanied by molten lead or mastic. Any traditional metal working details of this kind are to be recorded.
	A photograph of fixing types (lapped, bolted joints, in addition to molten lead or mastic filled sockets) and any other construction details should be made, and, if during the process of disassembly, different ages of





	fixings are discovered, this should be recorded on a plan drawing, and further photographs should be made of the various fixings. A note should be made on respective elevation and/or plan drawings to indicate the relative age of fixings for the different sections.
	A photograph and accompanying sketch of the base of the railings should be made, to aid in reconstruction, should the base need to be remade during reinstatement of the railings.
Written account	Written descriptions should accompany any visual records, where the visual record specified for the Level 3 record above provides incomplete data. For example, the presence of red lead putty on joints or hot-poured lead sockets may require a brief written account to provide clarity to the photograph. In addition, the record should include a description of how the cast iron base has been built and supported, including any fill material, fixings, foundations for this.

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# 5 Specification for dismantling

## 5.1 Introduction

- As far as possible, railings and piers will be retained in situ and protected for the duration of works, to avoid the risks which are inherent in the process of dismantling and removal. The railings and piers that are dismantled and removed will be protected, transported and stored as outlined below.
- Once detailed recording is complete, record drawings and photographs will form the basis for systematic identification, recording, and labelling of the railings during the process of dismantling, transport and storage. Sample drawings in draft format are reproduced in Appendix B to illustrate the numbering system to be used to identify and label sections of railing in preparation for transport and storage and to enable future reinstatement. Railing panels will be numbered in sequence, from west to east W/o1, W/o2 etc for those located on the west side and from E/o1 for railings on the east side of Euston Square Gardens as shown on the sample draft drawings.
- 5.1.3 All proposed work to the railings dismantling, labelling, lifting, handling and transport will be carried out by a specialist historic metalwork sub-contractor skilled in traditional metalworking techniques and experienced in work of this kind. Copies of the record (including drawings, photographs as outlined in previous section) and this method statement will be incorporated in the contract documentation for this specialist work.
- The railings will be dismantled in sections (vertical panels) on the lines of the cuts which were made during the relocation work of the 1970s described and illustrated in Section 2 above.

  There is evidence of cutting, butt welding, filling and cracking visible at these junctions (X in Figure 18 above) on the upper and lower rails (horizontal elements) across all the garden railings. Any dismantling will follow these existing joints and avoid the need to introduce new cuts, as far as possible.
- During the process of dismantling, any constructional details of the railings and piers which may be revealed, such as the nature of original foundations (brickwork or concrete that may be exposed by dismantling), maker's marks, jointing and other metal working techniques, will be recorded in line with the specification for recording set out in Section 4 above.
- Any structural remains that may be exposed by dismantling will be recorded. If for any unforeseen reason excavation is required within the immediate vicinity (within 2m) of the railings this will be carried out by hand by the project's archaeological sub-contractor. Any structural remains below the level of the visible base will be recorded and this information included in the final recording report for the railings.
- 5.1.7 A general methodology for the removal and re-erection of the railings and piers is set out in Sections 5.2 to 5.5, to include:

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- Specialist metal work investigation, recording, condition assessment and removal of adjacent paving as set out in Section 5.2;
- Protection measures for railings retained in situ, set out in Section 5.3;
- Method for dismantling and removal, set out in Section 5.4;
- Transport and storage, set out in Section 5.5

## 5.2 Specialist investigation and assessment prior to removal

- 5.2.1 Prior to dismantling, the specialist metal work sub-contractor will carry out the following inspection and recording work. All observations will be recorded by annotation of record drawings and photographs produced as set out in section 4 above.
  - Identification of joints. Close range inspection of railings will be carried out to identify and record component elements of the railings, including both original joints and jointing methods, and 'joints' introduced in the 1970s by cutting through the upper and lower railings (at X marks as shown on Figure 17 above) to form panel sections that could be remove.
  - Localised paint removal at joints. Where paint work masks these joints, localised, small scale manual paint removal will be carried out, to locate the joint and exact position of past (1970s) cutting so that railings can be dismantled on the same lines, avoiding further damage to the iron work. Paint removal will be carried out manually using hand tools (spatulas and scrapers). If paint layers prove resistant to manual removal, infrared paint removal (the Speedheater system) will be used, subject to initial trials, to gently heat and soften the paint layers prior to mechanical removal. These positions will be marked on the painted surfaces of railings prior to any cutting and dismantling work.
  - Recording. Due to the rearrangement of the railings during the twentieth century,
    jointing methods may vary and provide evidence of past remedial work—any sections
    retained in situ may feature different jointing systems to those that have been reassembled. Variations of this kind will be recorded, annotated on existing record
    drawings and photographs. With very few exceptions the joints in the base of the
    plinth are open and will not require investigation. In general, joints in the upper and
    lower (horizontal) rails are also readily visible on close inspection due to a
    combination of filling and welding repairs.
  - Detailed condition assessment. The specialist metal work sub-contractor will assess the condition of railings to determine if there is a risk of any element detaching or breaking in the process of dismantling, transport and storage. Any loose or detaching elements will be secured in position, tied to adjacent sound sections, using (polyester

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fabric) ratchet straps with integral buckles or fasteners. Straps and fasteners will remain in place until the railings are returned from storage for reinstatement.

- Removal of paving slabs adjacent to the railings. Where paving slabs abut the base of the railings (which occurs along the length of the Euston Road elevation, to the south side of the railings), these will be carefully removed prior to dismantling, to prevent damage to the moulded base and release it in preparation for lifting. Depending on the ground level adjacent to the railings, it may be necessary to remove existing turf in order to: 1. expose the moulded base to its full height and extent; and 2. To release the base section for lifting. If there is fill (such as rubble or concrete), which extends up into the cavity of the moulded base, this will be removed as far as safely possible prior to lifting.
- Investigation of foundations to railings and fill to plinth moulding. Depending on the ground level adjacent to the railings, it will be necessary to remove turf abutting the plinth in order to:

  1. confirm the plinth detail the nature of any fill to the plinth and foundations underneath it; and 2. To release the base section for lifting. If there is fill (such as rubble or concrete) this will be recorded and removed as far as safely possible, prior to removing the railing panels from site.

### 5.3 Protection measures

- General. Cast iron is brittle and vulnerable to fractures and impact damage. Protection is therefore required when construction work needs to be carried out in proximity to any railings retained in situ. Dismantled sections need to be handled with care to protect them from the inherent risk of damage during dismantling, handling and transport. The following paragraphs set out protective measures for railings retained in situ and for those to be dismantled and stored.
- 5.3.2 Railings retained in situ. The following measures will apply to railings retained in situ.
  - Nothing is to be fixed or attached to the railings. Any protection to be installed is to be free-standing and independent of the railings and must not exert any pressure on the ironwork that could result in damage.
  - Where temporary barriers or fencing must abut the railings or piers (without being fixed, attached to them) the metal surfaces will be protected with a cushioning layer of Polyethylene foam wrapping secured in place with fabric (polyethylene or similar) straps.
  - Access. If access is required to the upper sections of railings, this will be provided
    using independent platforms or scaffold towers, without bracing against or bearing
    onto the railings.
  - Temporary exclusion zones. If construction work must be carried out in proximity to railings retained in situ on a short-term basis (period of approx. six month or less), railings will be protected by Heras fencing with appropriate signage indicating a





temporary exclusion zone and heritage fabric. Fencing will be erected at a minimum of 2m from the railings elevation (vertical face).

- Medium to long term protection within construction site. Where railings are to be retained in situ within the footprint of a construction site in the medium to longer term (duration greater than 6 months) they will be protected by solid ventilated timber boxes. These will be purpose-made and designed boxes which will be self-supporting and independent of the railings they enclose. Where internal surfaces of the box are in proximity to the railings, metal surfaces will be protected with cushioning material of Polyethylene foam wrapping and structural polystyrene, held in place with synthetic fabric straps. Any box enclosures will be ventilated (on vertical surfaces) to prevent development of a damp internal micro-climate that might promote corrosion of iron work. Boxes will be designed to be readily de-mountable and to provide access for inspection to check the condition of the railings. The exact design of any box enclosure will be agreed with the Contractor's Built Heritage Advisor who will also monitor the condition of railings protected in this way through inspections to be carried out at intervals not less than bi-annually (every 6 months).
- 5.3.3 Protection during temporary site storage and transport. Whilst railings are retained on site awaiting transport and during transport, they are to be stored upright, with bases supported and maintained in a level, stable position with timber wedges and supports placed under the bases and between railing panels, as necessary. The railings will not be stacked or propped. Railings are to be supported and protected from impact damage and secured in position during transport (including packing, spacers between adjacent panels) using a combination of the following cushioning and protective materials:
  - polyethylene closed cell flexible foam (Plastazote), min. thickness 15mm wrapping;
  - structural polystyrene (also known as expanded polystyrene) cushioning material between railings and as spacers and supports under railing bases
  - polyester ratchet straps to secure foam protection around vulnerable elements and surfaces;
  - timber wedges may be used as spacers and supports under railing bases and between railings during site handing and transit. <u>Note:</u> timber is not to be used in contact with cast iron surfaces during long term remote storage; see note in following paragraph.
- 5.3.4 Protection during long term storage. Whilst railings are retained in long term storage they are to be supported and secured in an upright position using the materials outlined in the previous paragraph, apart from timber. Timber is not to be used in contact with cast iron surfaces during long term storage as it retains moisture and acidic compounds which can promote corrosion. Inert materials are to be used, of the types listed under 5.3.3 above.





#### Methodology for dismantling and salvage of railings and piers 5.4

- After the preparatory work outlined in section 5.2 above, railings designated for removal will 5.4.1 be dismantled in vertical (full height) panels, as shown in Figure 23 below, in the following stages.
- Cutting through existing joints. As far as possible vertical panels will be released by cutting 5.4.2 through existing joints created when the railings were previously re-arranged in the 1970s. Cuts will be made through the upper and lower railings at positions as shown in Figure 18 above. The cutting method will depend on the nature and condition of each individual joint, to minimise the impact on the metal. As far as possible cutting will be done using traditional, cold metal working methods. Gentle (relatively low temperature) heating may be used, where screw or bolt fixings are found and need to be released. Where fixings of this type have seized up due to corrosion and cannot be released by heating, these will be removed by careful drilling. Gas axes (very high temperature cutting tools) will not be used to cut through railings.
- Lifting railing panels. Once released, individual railing panels (see Figure 23 below) will be 5.4.3 lifted in full height sections extending from the moulded base to finials. Depending on condition assessment set out above it may be necessary to install ratchet straps to hold elements together - vertically or horizontally during the lift.
- Dismantling along fractured joints and elements. In some cases, where existing fractures are 5.4.4 positioned so that these facilitate lifting in panels without the need to do any cutting, the panels may be of slightly different configuration, to minimise the damage and impact on the railings.
- Lift Plan. The detail of equipment to be used in the lift, including calculation of weight, lifting 5.4.5 slings / straps, will be determined by the specialist metalwork sub-contractor who will produce a Lift Plan for approval by project engineers and the project's Built Heritage Specialist. The equipment will include a telehandler or similar machine with appropriate accessories including polyester (fabric) straps which will be in contact with metal surfaces during the lift.
- Recording and labelling. Dismantled panels will be labelled using aluminium identification tags 5.4.6 (Alitags) marked with the relevant reference number, cross referenced to the record drawings (see Appendix). Each tag is to be stamped with the panel's reference number. Stamped characters (letters, numbers) must be legible, min. height of 6mm. Numbered identification tags will be tied to the railings using aluminium, copper or brass wire, suitably fine in diameter to permit tying but sufficiently robust for handling and transport.
- Dismantling Records. The specialist metal work sub-contractor will maintain records of all 5.4.7 dismantled railings and provide regular updates on these. It is anticipated railings may be removed in relatively phases (each of a few weeks) over a long period, consequently records are to be submitted on a weekly basis during each phase of site dismantling. Records are to consist of Excel spreadsheets with the following fields, at a minimum:

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- Unique location / panel reference number
- Photograph / drawing / sketch reference numbers (photos, drawings and sketches can be supplied as separate high res digital files)
- Condition including a note of missing, detaching and damaged elements, any elements to be strapped
- Any relevant notes including past repairs, original features, use of wrought versus cast iron, description of any foundations (brick, concrete)
- Damage both past damage that has been revealed by recording and damage that may occur during dismantling
- Dates: of dismantling, delivery to secure store

## 5.5 Transport and storage

- 5.5.1 Directly after dismantling and labelling railings will be lifted onto suitable transport (flat-bed lorry) and maintained in upright positions, sitting on their bases. Panels will be secured into position using the straps and other materials identified at 5.3.7 above.
- Railings are to be transported in an upright position, without stacking or leaning or otherwise inducing stresses that could damage them. Various protective and supporting materials, as set out in 5.3 above (excluding timber), are to be used to separate railings and secure them in an upright position during transport. The railings will not be stacked or propped.
- 5.5.3 Handling on site and transport to long-term storage will be the responsibility of the specialist metalwork sub-contractor, to ensure railings are safely loaded, unloaded and moved into the long term, secure store. Railings will be unloaded and delivered to their allotted storage location using the same method and equipment used to lift / dismantle them.
- Railing panels are to be stored in an upright position, with structural polystyrene supports under the bases, and packers and spacers acting as cushioning material between adjacent railings. Railings are not to be stacked or otherwise positioned in a way that could result in damage.
- The ideal internal storage conditions for cast iron are between 40-60% relative humidity (RH) and certainly not exceeding 65% RH. It is anticipated that the environmental conditions at the proposed store will meet these requirements. Railings will be retained in a secure, accessible store located within a larger warehouse complex which will be assigned specifically to the HS2 project. Adverse extremes in temperature and humidity are not anticipated. However, the environmental conditions within the store will be monitored by data logging. Data records will be uploaded during condition inspections (bi-annually) and checked for extreme fluctuations in RH, notably high humidity that could adversely affect the railings, promoting surface corrosion.

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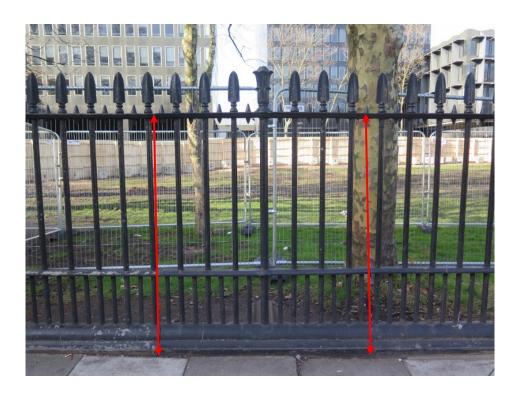


- The specialist sub-contractor for dismantling work will coordinate and supervise the transport of railings, liaising with the transport and storage providers and with the main contractor's Built Heritage Advisor, as required. This will include ensuring that the railings are positioned within the store so that they are readily visible and accessible for future inspections and monitoring of their condition.
- 5.5.7 The secure store and railings will be inspected bi-annually by the Contractor's Built Heritage Specialist. If the railings need to be moved within the store or to an alternative storage location, this will only be done by conservation specialists experienced in the handling of large objects and works of art, with the agreement of the Contractor's Built Heritage Specialist.
- The railings will be stored in a secure and weather proof store (Location: O'Hagan Transport, Cell Park Farm, Markyate, AL<sub>3</sub> 8QH) until they are required for re-erection. Their subsequent re-erection, the process for the re-assembly of the component parts, will be the subject of a separate Method Statement submission and agreement with Historic England and London Borough of Camden. If for any unforeseen reason, the location of the secure store needs to change, Historic England and London Borough of Camden will be informed of this in writing.





Figure 24 Typical elevation view of railings with position of joints indicated in red lines between shorter (T-shaped backstay) panels in top photograph and longer panel sections in photograph below





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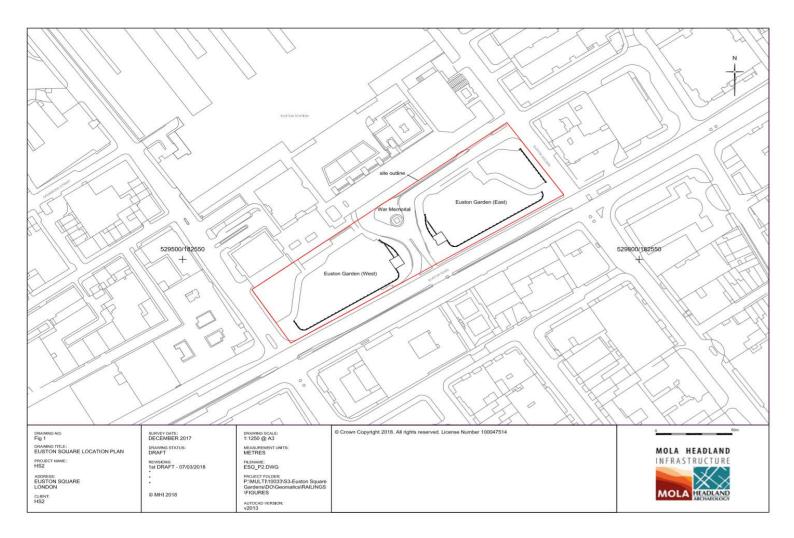


# Appendix A: Location plan of the railings around Euston Square Gardens

Scale 1:1250 at A3

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# Appendix B: Draft Drawings – Samples of plan and elevations drawings of railings

The following drawings are samples in draft format to illustrate the arrangement of railings, and proposed numbering and labelling system for dismantling.

Note: Drawings are at low resolution (reduced legibility) – to fit A4 format and for digital transmission.

See thumbnail inset plans on drawings for location of railings.

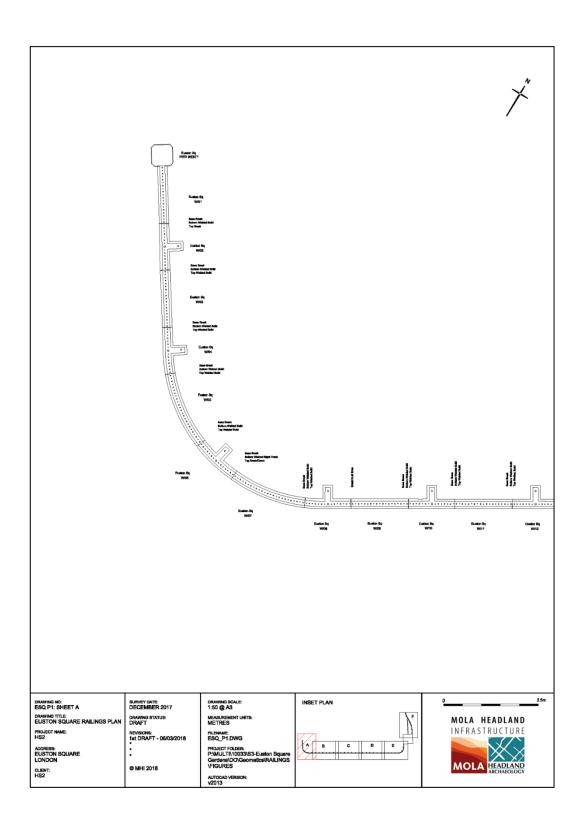
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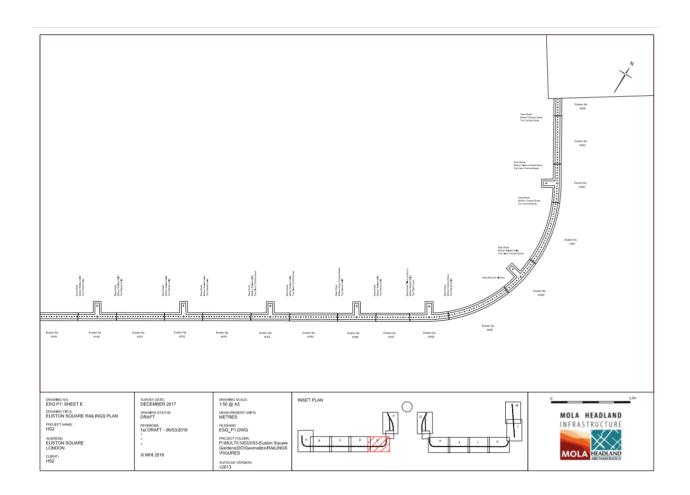
**SKANSKA** Heritage Agreement Method Statement – Recording and Dismantling Railings around

#### **Euston Square Gardens**





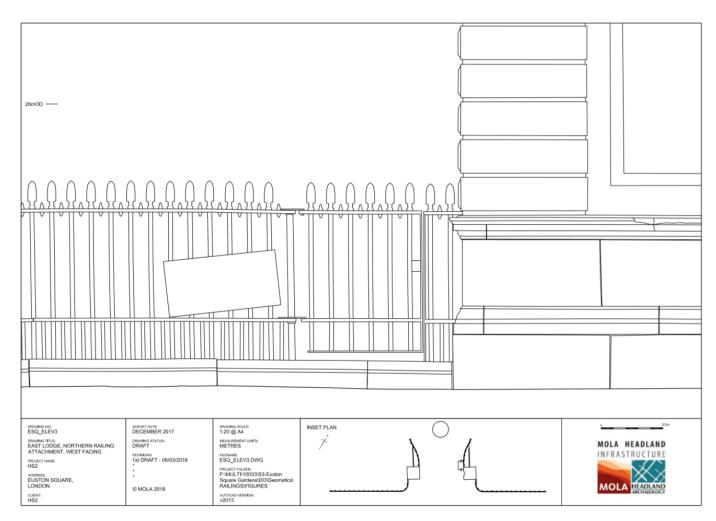




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**Euston Square Gardens** 



# Appendix C: List Entry (National Heritage List for England)

Information reproduced from NHLE online at <a href="https://historicengland.org.uk/listing/the-list/list-entry/1342039">https://historicengland.org.uk/listing/the-list/list-entry/1342039</a>

RAILINGS AROUND EUSTON SQUARE GARDENS, EUSTON SQUARE

Heritage Category: Listed Building

Grade: II

List Entry Number: 1342039

Date first listed: 14-May-1974

Statutory Address: RAILINGS AROUND EUSTON SQUARE GARDENS, EUSTON SQUARE

Location

Statutory Address: RAILINGS AROUND EUSTON SQUARE GARDENS, EUSTON SQUARE

The building or site itself may lie within the boundary of more than one authority.

County: Greater London Authority

District: Camden (London Borough)

National Grid Reference: TQ 29693 82568

**Summary** 

Legacy Record - This information may be included in the List Entry Details.

**Reasons for Designation** 

Legacy Record - This information may be included in the List Entry Details.

History

Legacy Record - This information may be included in the List Entry Details.

**Details** 

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**SKANSKA** Heritage Agreement Method Statement – Recording and Dismantling Railings around

ns) engine for growth

**Euston Square Gardens** 

CAMDEN

TQ2982NE EUSTON SQUARE 798-1/89/422 Railings around Euston Square 14/05/74 Gardens

GV II

Railings and piers. Mid C19. Cast-iron railings with foliated finials and round-headed piers resembling stele with rosettes in recessed panels.

Listing NGR: TQ2966182571

#### Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number: 477259

Legacy System: LBS

#### Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Document number: 1EW02-CSJ-HS-MST-S003-000492

Uncontrolled when printed

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