HS2

High Speed Rail (London – West Midlands) Act 2017

HS2 Ltd

London Borough of Camden

Euston Throat Retained Cut S1

Schedule 17 Plans and Specifications Written Statement for Information

LBC.S112.PS.06

Document Reference: 1MC03-SCJ_SDH-IN-STA-SS01_SL12-000001

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1 Introduction

1.1 Background Information

Table 1: Euston Throat retained Cut background information

Site	Details
Scheme	High Speed Two
Applicant	High Speed Two (HS2) Limited
Applicant Address	c/o Agent: c/o Agent: SCS Railways Joint Venture (SCS) Third Floor, Victoria House 37-63 Southampton Row London WC1B 4DA
Site Address	Land adjacent to the existing West Coast Main Line (Network Rail lines) to the west of the existing Euston Station in the London Borough of Camden, NW1.
Description	An open trough structure comprising two retaining walls on the east and west side (with concrete parapets on top).

1.2 Terms of Reference

1.2.1 This written statement is compiled in accordance with the HS2 Planning Memorandum and Planning Forum Notes as required by the planning regime established under Part 1, Paragraph 6 of Schedule 17 of the High-Speed Rail (London – West Midlands) Act 2017 (hereafter known as 'the Act').

1.2.2 This statement provides London Borough of Camden with information to assist with the determination of the retaining walls and earthworks submission in relation to the above description of works. This statement is for information only and not for approval.

1.3 Introduction to High Speed 2

1.3.1 Phase One of HS2 will provide dedicated high-speed rail services between London, Birmingham and the West Midlands. It will extend for approximately 230km (143 miles). Just north of Lichfield, high-speed trains will join the West Coast Main Line for journeys to and from Manchester, the North West and Scotland.

1.3.2 Phase One of HS2 is the first phase of a new high-speed railway network proposed by the Government to connect major cities in Britain. It will bring significant benefits for inter-

urban rail travellers through increased capacity and improved connectivity between London, the Midlands and the North. It will release capacity on the existing rail network between London, Birmingham and the West Midlands and so provide opportunities to improve existing commuter, regional passenger and freight services.

1.4 High Speed Rail (London – West Midlands) Act 2017

1.4.1 The Act provides powers for the construction and operation of Phase One of HS2. Schedule 1 of the Act describes the 'scheduled works' that the nominated undertaker will be authorised to carry out.

1.4.2 For the retaining walls and earthworks, which are the subject of this Schedule 17 application, HS2 Ltd is the nominated undertaker.

1.4.3 Section 20 of the Act deems planning permission to be granted for the development authorised by it, subject to the provisions of section 20 and conditions set out in Schedule 17.

1.4.4 Schedule 17 includes conditions requiring various matters to be approved by the relevant local planning authority.

1.4.5 This is therefore a different planning regime to that which usually applies in England (i.e. the Town and Country Planning Act 1990) and is different in terms of the nature of submissions and the issues that the local planning authorities (LPAs) can have regard to in determining requests for approval.

1.4.6 The Planning Conditions set out in Schedule 17 of the Act requires the nominated undertaker to submit requests for approval to qualifying authorities for:

- Plans and Specifications;
- Bringing into Use; and
- Site Restoration Schemes.

1.4.7 Schedule 17 of the Act sets out the grounds on which the qualifying authority may impose conditions on approvals, or refuse to approve the requests for approval. The LPA cannot impose conditions which seek to modify or replicate controls already in place under the Environmental Minimum Requirements (described below in Section 1.5), because those controls will have been considered necessary or sufficient by Parliament when it approved deemed planning permission for the railway under the HS2 Act.

1.5 High Speed Two Environmental Minimum Requirements

1.5.1 The Environmental Statement (ES) is an assessment of the likely significant environmental effects of the proposed HS2 railway and the proposals to avoid, reduce or remedy these likely significant environmental effects.

1.5.2 HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). These controls along with the powers contained in the Act and the Undertakings and Assurances will ensure that impacts which have been assessed in the ES (as amended) will not be exceeded.

1.5.3 The EMRs comprise the following suite of documents:

- Code of Construction Practice (CoCP)
- Planning Memorandum
- Heritage Memorandum
- Environmental Memorandum
- Undertakings and Assurances

1.6 Structure of this document

1.6.1 This document will cover the following sections:

- Section 2 provides an overview of the location and context of the design element;
- Section 3 gives further detail on the works for approval and associated works;
- Section 4 sets out the design proposals with an explanation of known constraints and design evolution;
- Section 5 provides an overview of the pre-submission consultation;
- Section 6 set outs a high-level construction programme for the works; and
- Section 7 covers all consents related to the asset and any conditions that have emerged through consultation discussion.

2 Site Location and Characteristics

2.1 Site Context

2.1.1 The site that will accommodate the Euston Throat Retained Cut package of works is located between the A400 Hampstead Road Bridge and Granby Terrace Bridge, to the north west of the existing Euston Station. The wider setting of the package is illustrated in Figure 1. It contains predominantly post-war housing of varying styles, set at a level above the adjacent railway corridor. The residential buildings that fall within the site boundary have already been acquired permanently, and the properties are now vacant. These buildings will be demolished to allow for the excavation of an open trough structure to accommodate the HS2 alignment immediately adjacent to the existing West Coast Mainline rail corridor.

Figure 1 - Aerial view of Euston Throat East and surrounding area (source: Map data © Google 2019)

2.2 Adjacent Land Uses

2.2.1 The immediate surrounding area to the west and south of the site is largely residential with the Regent's Park Estate consisting of medium to high rise residential blocks, to the south. The Regents Park Barracks site is approximately 200m to the north west of the site, within the otherwise residential area.

2.2.2 To the south east of the site is Euston Station, which is one of Britain's busiest main line rail stations, providing connections to the cities north of London including Birmingham,

Liverpool, Manchester, Edinburgh and Glasgow. Railway tracks and associated operational land are located to the north and east of the site.

2.2.3 Regents Park lies approximately 400m to the west of the site, and is one of London's largest and most significant areas of open space. Closer to the site, there are other smaller open spaces and play areas scattered around the residential areas immediately to the west.

2.3 Environmental Characteristics

2.3.1 Regents Park is approximately 400m to the west of the site and contains the Regent's Park Site of Metropolitan Importance (SMI), which comprises mature parkland trees, a small enclosed woodland, an ornamental lake and a grassland area managed specifically for wildlife.

2.3.2 There are a number of designated heritage assets in the area (see Figure 2) which include:

- Grade II* listed properties off Park Village West (390m from site) and Park Village East (430m from site) to the north of the site;
- Grade II listed assets including Regent's Park Barracks (200m from site), the York and Albany public house (630m from site), numbers 119- 123 Parkway and number 125 Parkway (640m from site), Mornington Crescent No's 1, 2-35 and 261/263 (120m from site) and Mornington Street Bridge stone piers, i.e. pillars and associated lamp posts, west and east ends of bridge (350m from site);
- Grade I, II* and II listed buildings towards Regents Park (330m from site), to the west of the site;
- the Regents Park Conservation Area (75m from site) and Camden Town Conservation Area (120m from site); and
- Grade II listed Parkway Tunnel and Cutting (660m from site).

2.3.3 Portions of the wall (parapet only) to the west side of railway cutting, running along Park Village East to Granby Terrace, and the wall to east side of railway cutting, running the extent of Mornington Terrace and Clarkson Row, are included as 'street features or other structures' on Camden's Local List (adopted on 21 January 2015). The Local List comprises non-designated heritage assets.

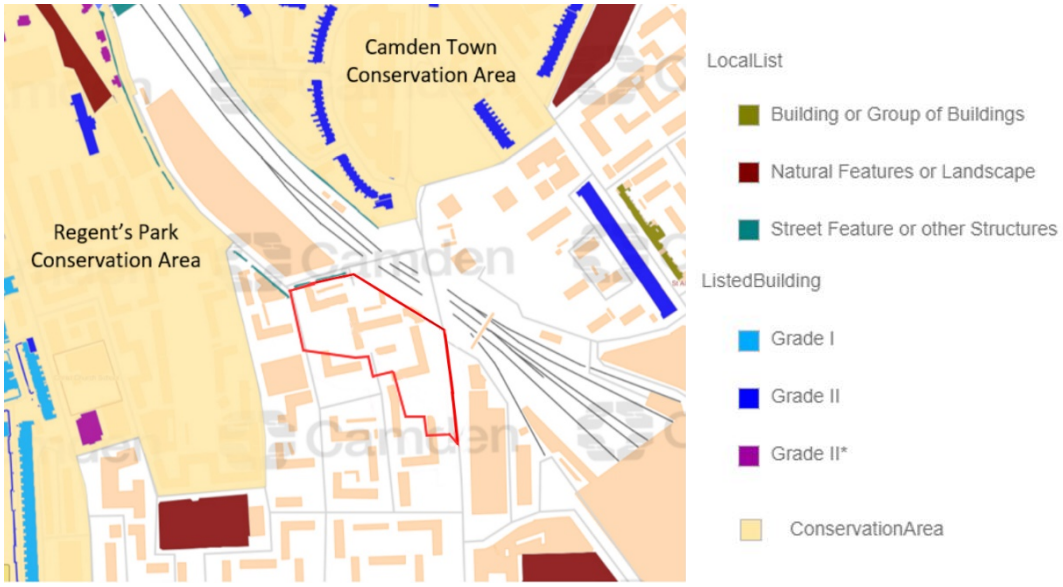

Figure 2 - Plan showing heritage assets in the vicinity of the site (adapted from Camden Council Local List map www.camden.gov.uk/local-list)

2.3.4 There are statutory designated ecological sites within the wider vicinity of the site. The Camley Street Nature Park LNR is situated approximately 900m from the Euston Throat Retained Cut and provides natural habitats for bats, birds, butterflies, amphibians and plant life.

2.3.5 The Regent Park Site of Metropolitan Importance SMI comprises mature parkland trees, small enclosed woodland, an ornamental lake and grassland area managed specifically for wildlife. Over 100 species of birds annually have been recorded within the site, and a large number of invertebrates.

2.4 Surrounding Highway Network

2.4.1 The A40 Hampstead Road runs along the south-eastern edge of the site and continues northwards, ultimately connecting to the A1. The northern edge of the site is bounded by Granby Terrace, which will be realigned as part of a separate package of HS2 works carried out by the Early Works Contractor (EWC). The site is currently occupied by Harrington Street and Mackworth Street; the buildings and streets in this area will all be demolished as part of the works. Varndell Street runs east-west to the south of the site and Stanhope Street runs north-south to the west of the site.

2.4.2 Approximately 0.5km south of the site is a junction between the A400 Hampstead Road and A501 Euston Road; the A501 extends westwards to join the A40 Westway, which in turn then links to the M25 and M40 motorways. Extending eastwards, the A501 connects to the A1, and to the A10 and the A11 via Commercial Street. To the west of the site, the A5205 links to the A41, which continues north to join the North Circular and M1 motorway.

Figure 3 - Highway network in area surrounding the Euston Throat East site (source: SCSJV Maps)

3 Description of the Works

3.1 Euston Throat Retained Cut

3.1.1 Euston Throat Retained Cut is located between the Hampstead Road Bridge and Granby Terrace Bridge. It will comprise an open trough structure located adjacent to (the west of) the existing West Coast Mainline (Network Rail) tracks. It will consist of:

- a western retaining wall structure, running between the northern extent of the extended Hampstead Road Bridge and the southern extent of the extended Granby Terrace Bridge;
- an eastern retaining wall, also running between the northern extent of the extended Hampstead Road Bridge and the southern extent of the extended Granby Terrace Bridge, which will support the adjacent West Coast Mainline (Network Rail) tracks due to the level difference with the HS2 tracks;
- a concrete slab base, with tension piles (beneath / supporting the HS2 tracks) in between the eastern and western retaining walls (the base slab and tension piles are not for approval);
- a 1.8m reinforced concrete containment parapet (location only for approval) will be constructed on top of the entire length of the western retaining wall structure, to ensure that the required safety and security provision is in place for the HS2 railway to be located within the retained cut below; and
- a 1.8m reinforced concrete parapet (location only for approval) will be constructed on top of the eastern retaining wall, to provide separation between the West Coast Mainline tracks and the HS2 tracks at the lower level.

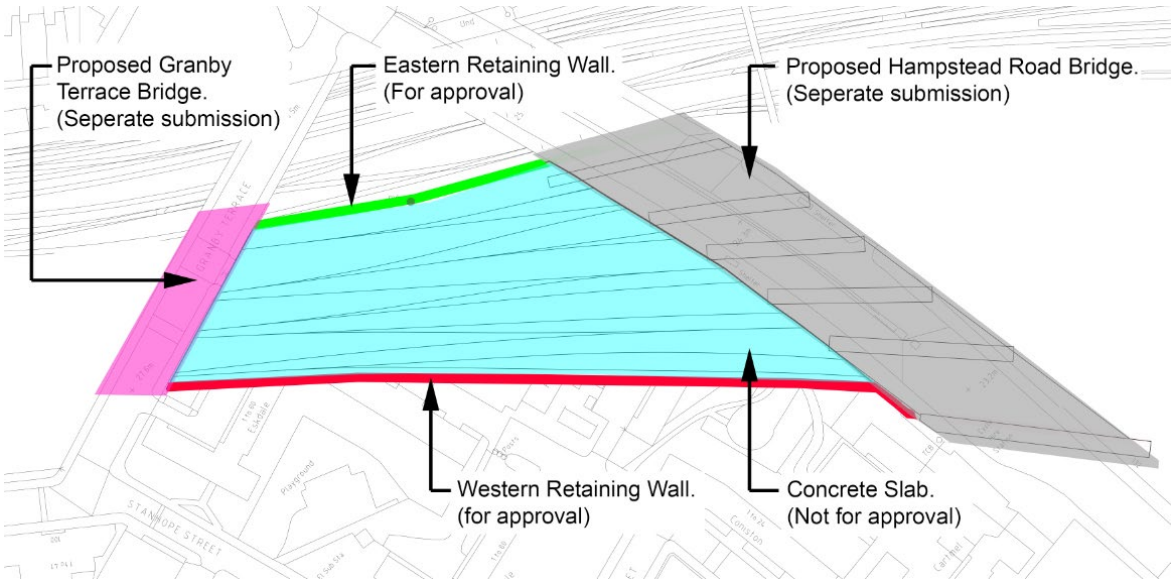

Figure 4 Diagram of Euston Throat Retained Cut

3.1.2 The location of the parapet walls are for approval only as part of this application under paragraph 3(6) of Schedule 17. The function of this element of the works (parapet wall) is as a means of enclosure and not as a retaining structure and therefore does not constitute an 'earthwork' under paragraph 3 (2) of Schedule 17 of the Act.

3.1.3 The area of land to the west of this, bordering Granby Terrace, Harrington Street and Mackworth Street, is designated in the HS2 Environmental Statement (as amended) for future public realm / replacement community facility and suitable development use; however, any scheme for this purpose will be developed in the future and is not therefore included for approval within this submission (see Section 3.3).

3.2 Works for Approval

3.2.1 The following elements are for approval under Schedule 17 Paragraph 2 and 3 of the Act, within this submission (see also Figure 4 above):

- The design and location of the western retaining wall structure of the Euston Throat Retained Cut, including just the location of the 1.8m reinforced concrete containment parapet (on top of the western retaining wall) along the full length.
- The design and location of the eastern retaining wall structure of the Euston Throat Retained Cut, including just the location of the containment reinforced concrete parapet on top of the eastern retaining wall.
- Associated earthworks to form the railway trough structure (including the areas below the Hampstead Road Bridge extensions).

3.3 Indicative Mitigation

3.3.1 Paragraph 7.5.2 of the Planning Memorandum, which forms part of the *High Speed Rail (London -West Midlands) Environmental Minimum Requirements,* states that when making certain requests for Plans & Specifications approval, HS2 shall, where reasonably necessary for the proper consideration of the design proposed, also provide the planning authority with an indication or outline of any mitigation measures it proposes to seek approval for subsequently.

3.3.2 The proposed indicative mitigation is illustrated on drawing 1MC03-SCJ-EV-DPL-SS01_SL03-031100 (included under cover of the 'Consultation on Indicative Mitigation Proposals' letter). It aims to mitigate the loss of land that is at present part of Hampstead Road Open Space, Eskdale play area, St James' Gardens and other land on the Regent's Park Estate. The *HS2 London – West Midlands Supplementary Environmental Statement 2 and Additional Provision 3 Environmental Statement Volume 2 (Community Forum Area Report – CFA1 Euston – Station and Approach*) contains provisions that require new public

open space to be created at the northern end of the Regent's Park Estate, between the railway and Langdale, to incorporate land that is at present part of Hampstead Road Open Space, Eskdale play area and other land on the Regent's Park Estate. The space is also required to include grass, planting, children's play areas and a multi-use games area (MUGA).

3.3.3 Table 2 below sets out in detail the proposed indicative mitigation and the effects that the proposed scheme seeks to mitigate.

Table 2 Indicative mitigation

	Existing Area	Existing features to be mitigated	Proposed location for mitigation
Open Space	St James's Gardens	- MUGA - Children's play area - Benches - Landscaped areas	Open space north of Langdale
	Hampstead Road open space	- Children's playground	Open space north of Langdale
	Eskdale play area	- Children's playground - Mature trees - Benches	Open space north of Langdale
Other mitigation	St James's Gardens	- Wildflower and native shrub planting	Open space north of Langdale

3.3.4 It should be noted that the proposed indicative mitigation works are not for approval in this application (i.e. under paragraphs 2 or 3 of Schedule 17 of the Act). The statutory process for planning approval of such mitigation is under paragraph 9 of Schedule 17 via a Bringing into Use approval, which will be sought via a separate application in the future, in advance of the opening of HS2. Nevertheless, the above information has been producedis in accordance with paragraph 7 of Planning Forum Note 10, which requires that a plan is provided to illustrate new community facilities and is annotated to indicate the purpose and use of the mitigation works, with a brief written description of the mitigation that sets out the effects it seeks to mitigate.

3.3.5 For clarity, the indicative mitigation proposed is relevant to the following scheduled works contained in Schedule 1 of the Act:

- Work No. 1/1;
- Work No. 1/2;
- Work No. 1/11;
- Work No. 1/13; and
- Work No. 1/14.

3.3.6

3.4 Ecology

3.4.1 There is no additional loss of habitats or impacts on species as a result of the works for approval when compared to the impacts as assessed in the Environmental Statement (as amended).

3.5 Operational Noise

3.5.1 The design of the Euston Throat Retained Cut will not result in new or altered adverse airborne and groundborne vibration impacts at receptors from those assessed within the Environmental Statement (as amended).

3.6 Construction Method

3.6.1 The works subject to this request for approval of Plans and Specifications will be undertaken in accordance with the HS2 Code of Construction Practice and the Class Approval issued by the Secretary of State (March 2017).

3.6.2 This section summarises the construction methodology including the main phasing of works, temporary construction worksites, temporary hoardings and site access arrangement.

3.6.3 The construction works for the Euston Throat Retained Cut will be located between Granby Terrace Bridge and Hampstead Road Bridge. The Euston Approaches Worksite will be built by SCS as the Main Works Civils Contractor (MWCC) and used to facilitate the running of the site; the worksite will be located adjacent to Stanhope Street. The worksite is of an irregular shape and runs in a general east to west direction. It is bounded by the A400 / Hampstead Road to the east and A4201 Parkway and Delancy Street to the west. The northern extreme of the worksite is bounded by the existing rail corridor West Coast Mainline, the southern extreme of the worksite is bounded by Harrington Street, Stanhope Street and Park Village East. The worksite will also have site storage areas, site skips and a welfare area.

3.6.4 The access to the Euston Throat Retained Cut will vary as the works progress, this will be based on the construction methodology, outlined below. The Euston Approaches Worksite will benefit from 4 no. access / egress points located at the northern end of Park Village East, on Granby Terrace at the junction of Stanhope Street / Park Village East, and 2 no. on Hampstead Road. This access will be utilised by the MWCC as far as reasonably practicable to access/egress the site.

3.6.5 Access and egress is also found at either end of Granby Terrace Bridge at the junctions with Park Village East and Stanhope St to the west and Hampstead Road to the east. In addition, a haul road will also be located on A400 Hampstead Road. These details are set out in the Local Traffic Management Plan (LTMP) the latest version of this document (1MC03-SCJ-HW-PLN-S001-000002) was issued to LB Camden on 30th July 2019.

3.6.6 The following construction methodology (may be subject to change) is anticipated for the construction of the Euston Throat Retained Cut:

- Site set up and clearances including the installation of hoardings;
- Installation of temporary piling platform;
- Installation of sheet piled retention to the south of the west side retaining wall;
- Construction of the double contiguous piled wall;
- Installation of a second sheet piled retention to the north of the west side retaining wall to allow the construction of the capping beam;
- Breakdown of piles and construction of the west side retaining wall capping beam;
- Construction of the parapet on the western wall;
- Excavation of ground level to the north of the west side retaining wall;
- Demolition of the existing Network Rail retaining wall adjacent to Line E;
- Installation of piling platform;
- Construction of tension piles and eastern retaining wall;
- Construction of capping beam along the eastern retaining wall;
- Construction of the parapet on the eastern wall;
- Excavation to underside of slab level;
- Construction of two sections of base slab and erection of tower cranes for base slab and lining walls construction;
- Excavation and construction of the attenuation tank;
- Construction of remaining base slab; and
- Construction of the lining walls.

3.7 Archaeology

3.7.1 The Heritage Memorandum, which forms part of the *High Speed Rail (London -West Midlands) Environmental Minimum Requirements,* explains that a route-wide generic written scheme of investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) has been prepared in consultation with Historic England (HE) and the Local Planning Authorities. It sets out the research framework and general principles for design, evaluation, investigation, recording, analysis, reporting and archive deposition to be adopted for the design development and construction.

3.7.2 As described in Section 2.3, there are no listed designated heritage assets directly adjacent to the Euston Throat Retained Cut and therefore there will be no physical

impacts during construction as part of these works. Furthermore, there will be no permanent impacts on the setting of any designated heritage asset as a result of the construction of the retained cut.

3.7.3 However, there are ongoing discussions between HS2 Ltd and London Borough of Camden to determine the extent of the Parkway Tunnel and Cutting (Grade II listed asset), and appropriate recording will be undertaken prior to any demolition or alteration works once agreement has been reached. The arrangements for the management of archaeology during construction are not a matter for approval under Schedule 17.

3.8 Environmental Management during Construction

3.8.1 The Environmental Memorandum, which forms part of the *High Speed Rail (London -West Midlands) Environmental Minimum Requirements,* sets out the arrangements for the management of environmental issues during construction and the Code of Construction Practice (CoCP) sets out specific details and working practices that apply. The CoCP is supported by Local Environmental Management Plans (LEMPs) which include specific measures by topic, relevant to each relevant local authority area. The LEMP relevant to the works subject to this Schedule 17 submission is *P1S Local Environmental Management Plan - London Borough of Camden* and can be found here: https://www.gov.uk/government/publications/local-environmental-management-plans-for-hs2-phase-one

3.8.2 Environmental management arrangements during construction do not form part of this request for approval of Plans and Specifications under Schedule 17.

4 Design Criteria and Rationale

4.1 Chosen Design

4.1.1 The western retaining wall is a major engineering structure both in length (192.31m) and height (15.13m maximum), which will be one of the deepest retaining structures in the country. As such this wall and the smaller eastern retaining wall must address significant technical requirements in a safe and efficient way whilst also contributing to the visual amenity of the area. This section is concerned with the trackside walls that perform a retaining function.

4.1.2 Essential components of the western retaining wall structure are as follows:

- 1.8m diameter contiguous piles
- Stepped 2m deep concrete capping slab
- 2m high retaining wall
- 1.8m high parapet wall
- Structural lining wall

4.1.3 This design approach expresses the civil engineering in an honest but visually controlled way. Where the engineers of the nineteenth century would have used brick, the more technically demanding solution for such a deep cutting today requires a concrete solution.

4.1.4 A high-quality finish is regarded as important to address concerns over the weathering of smooth concrete and its vulnerability to vandalism in the form of graffiti. An inherent characteristic of concrete is its plastic nature when cast and the ability to form profiles in the surface which can address the aesthetics of the finish. This can be achieved by a range of form-liners which are attached to the formwork before the concrete is poured. A wide range of cast profiles have been explored and through a rigorous process of evaluation along with discussions and agreement with London Borough of Camden, it has been concluded that a vertical rib 40mm deep at approximately 50mm centres would most effectively control the appearance of the wall and maintain its appearance in the long term.

4.1.5 The ribs will effectively create channels in the surface guiding rain or seepage carrying dirt deposits and the striped appearance will help disguise variation in colouration resulting from this. Furthermore, the ribs will cast a shadow which will change throughout the day as the sun moves across the cutting giving it a dynamic appearance which would be absent in a flat surface.

4.1.6 Horizontal bands have been introduced at approximately 2m centres both for practical reasons in accommodating construction joints but also to reflect the strong horizontal of the high-speed trains as they pass. The combination of fine grain vertical ribs and continuous horizontal bands will create a distinctive overall appearance appropriate to this specific location which acts as a gateway space to the high-speed trains arriving and leaving Euston Station.

4.1.7 In order to make the architecture of the wall even more special and particular to its location, the proposal is to make the profile of the architectural finish unique to HS2 by designing a customised form used only on structures on the new high-speed line between Euston and Birmingham. Bridge abutments, wing walls and other structures along the line will feature the same unique HS2 profile. This architectural treatment will culminate at the West Retaining Wall which, by its sheer scale, will be the most impressive of all these structures and be a fitting celebration of passenger arrival to London.

4.1.8 Consideration was also given to the local heritage assets and conservations areas (outlined in Section 2.3) and while the location of the retained cut does not directly impact any of the adjacent assets, the design language recognises the context of the local character and will enhance and compliment it's immediate surroundings.

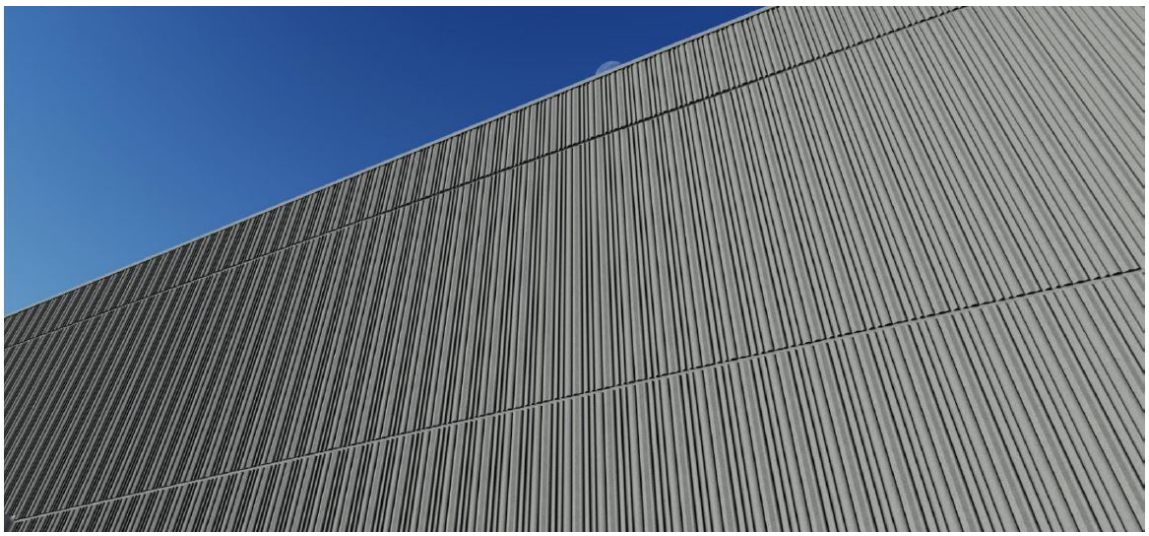

Figure 5 - Indicative view of the western wall from track level

4.2 Design Constraints

4.2.1 Site constraints such as changing ground levels and the need to accommodate existing and future below ground services dictate that the capping beam would need to be stepped in two locations. The first step will be towards the centre of the northern half of

the wall and will step down by 2m and the second, just south of the centre will step down by 1.5m.

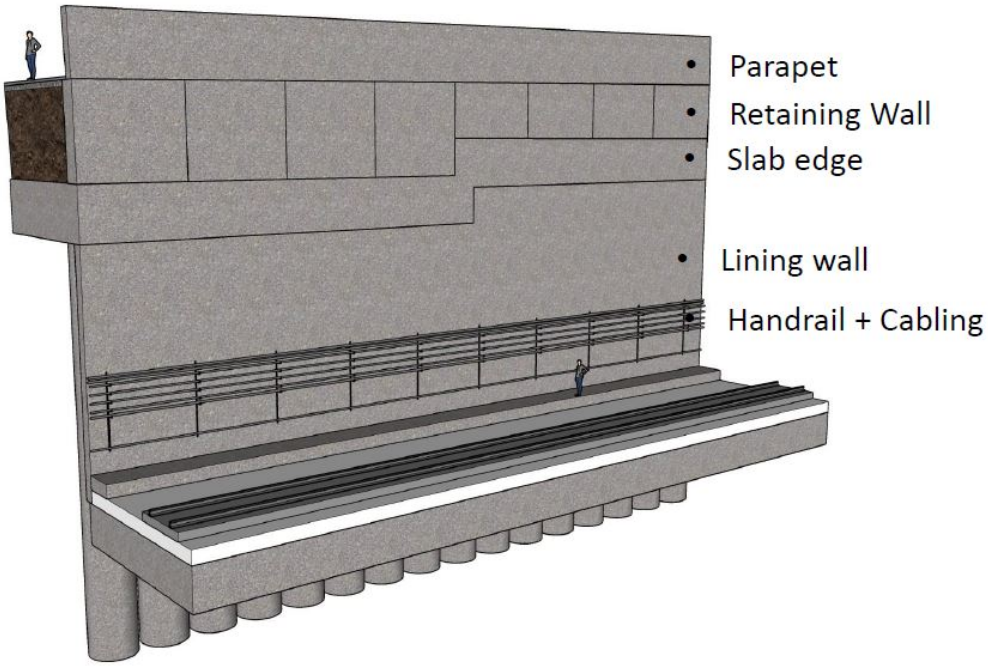

Figure 6 Piles and capping slab with lining wall finish

4.2.2 The most straightforward civil engineering solution would be to project the capping slab beyond the piles and structural lining wall so as to facilitate the placement of reinforcement and allow for adequate tolerances. However, through the evaluation of the design and discussions with London Borough of Camden, it was considered that revealing the different structural components of the wall in this way (which can be seen in Figure 7) would result in an untidy appearance and one that would be difficult to maintain in a visually attractive condition over the long term.

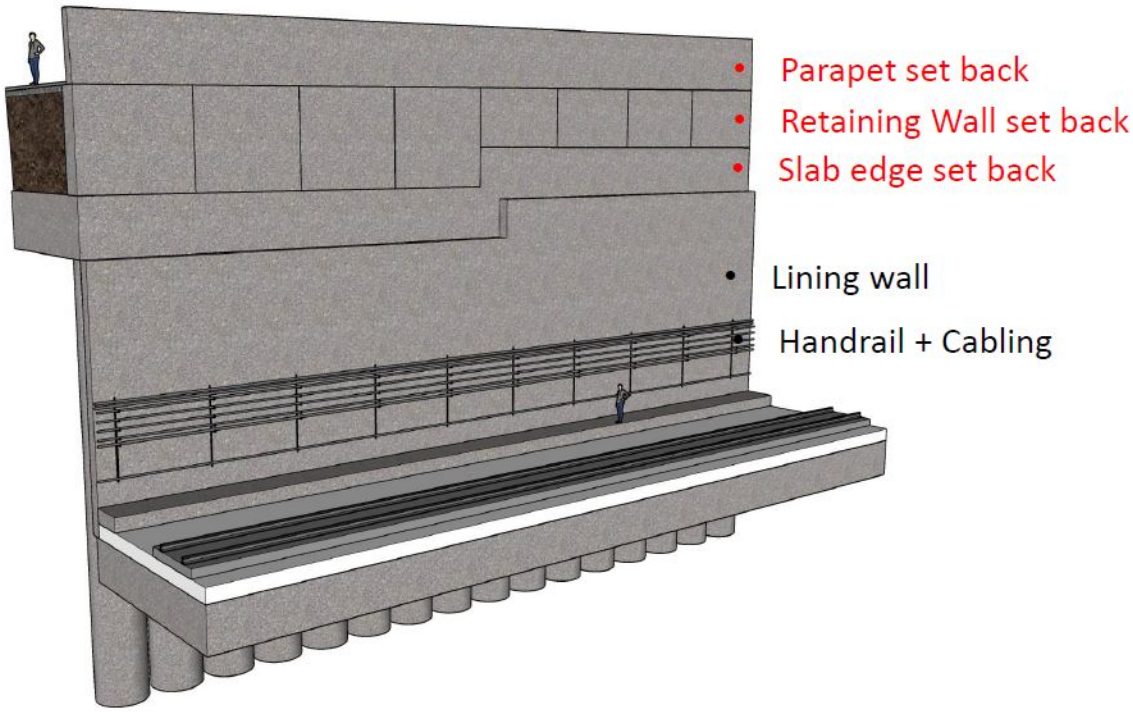

Figure 7 Piles and capping slab with lining wall finish with the parapet, retaining wall and slab edge set back

4.2.3 At the heart of the design approach is the idea of 'Total Architecture', based on the harmonious integration of both engineering and architectural objectives. The design rationale was therefore developed by a multi-disciplinary team whereby the capping slab would be set back (see Figure 8), and the structural lining wall would continue over the face of the slab and continue up to form the parapet. In this way, the entire retaining wall could be expressed as a uniform concrete surface which could then be treated with a high quality architectural finish with the East Retaining Wall being finished to match.

4.2.4 The resultant configuration provides a uniform and rational visual solution whilst allowing construction joints in the formwork to be positioned in an orderly and controlled manner.

Figure 8 Indicative finish of the lining wall

4.3 Options Considered

4.3.1 The option of applying a brick 'skin' to the concrete retaining structure was discussed with the London Borough of Camden but was agreed not to be practical in that it would be vulnerable to damage but also that it would compromise the honest expression of the engineering.

4.3.2 Consideration was also given to more complex cast forms including pictorial representations following discussions with London Borough of Camden, but it was considered that this level of complexity would require adopting precast technology which would again result in the need to over-clad the wall. This approach was also not thought to be as practical, in terms of security and weathering, as it would compromise the expression of the engineering.

4.3.3 Both brick cladding and pictorial cast forms would add significantly to the complexity of construction and require fixing systems which are unlikely to achieve the required lifespan or be sufficiently durable in the demanding high-speed railway environment.

4.3.4 Furthermore, the design approach of HS2 is firmly in favour of expressing the engineering nature of the project and not disguising it under cladding that is not functionally required. The design approach therefore has been to develop an integrated engineering and architectural solution, thereby creating a high quality, high performance aesthetic which has the potential to reflect the sheer scale of the project and last the lifetime of the new railway. Through the evaluation process of the design options and discussions with London Borough of Camden, the design of the ribbed concrete was agreed to be the most appropriate design approach.

4.3.5 The design of the westside parapet wall is **not for approval** as part of this application, however the wall faces an area of future open space north of Langdale and it will incorporate fixings to allow the opportunity for future art installations by others (see Figure 9 and Figure 10).

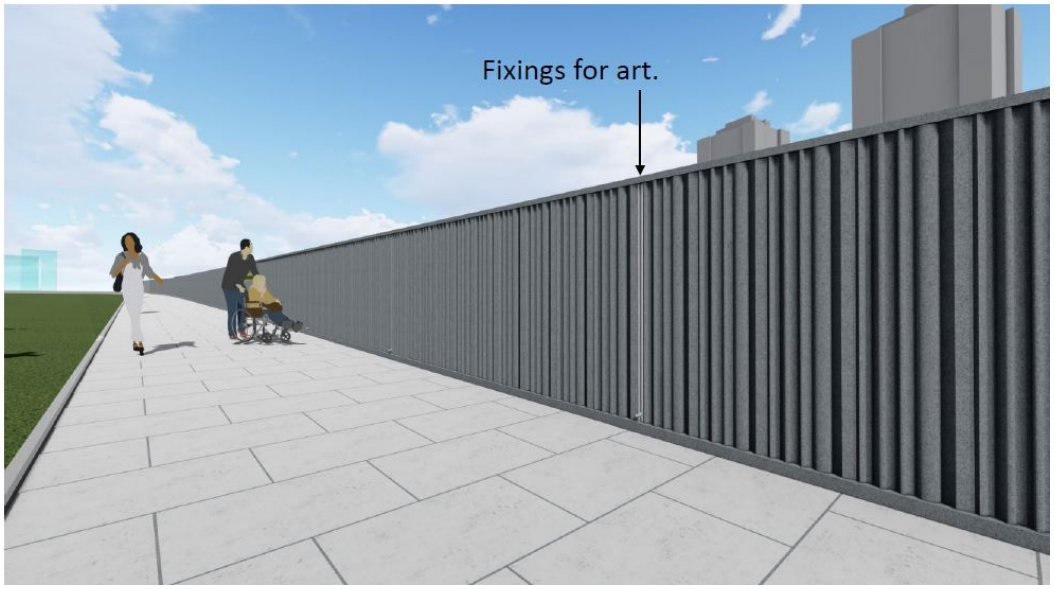

Figure 9 Indicative view of the westside parapet wall

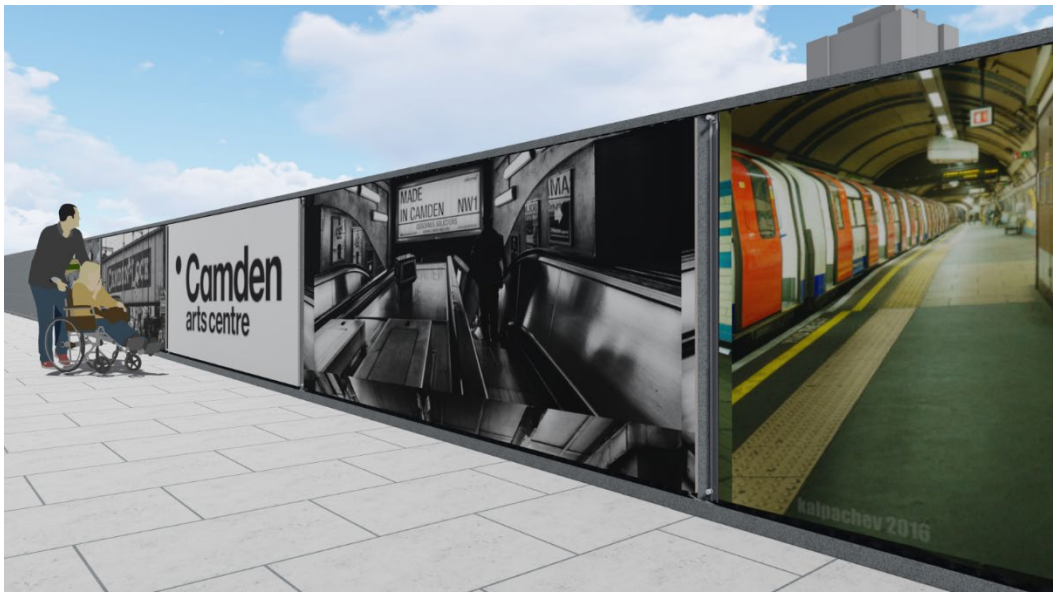

Figure 10 Indicative view of art installation

5 Pre-submission Consultation

5.1.1 Pre-submission consultation with the Local Planning Authority is summarised in Table 3 below.

Table 3: Pre-submission Consultation with LPA and Statutory Consultees

Consultee Name	Consultation Date	Method of Consultation / Attended by	Summary of Consultation Outcome
London Borough of Camden	5th June 2019	Workshop – Schedule 17 Euston Throat Retained Cut / Schedule 17 Lorry Routes	Further design development requested for the finish of the retained cut lining wall
	10th July 2019	Pre-application meeting – Schedule 17 Euston Throat Retained Cut	Request for further narrative surrounding the design development.
	7th August 2019	Pre-application meeting – Schedule 17 Euston Throat Retained Cut	General agreement on the proposed design principle for the retaining walls
Historic England	8th May 2018	Overview of the proposal for the HS2 main works Euston Throat assets	Design proposals take cues from historical development of the wider precinct. Primary focus was on the shaft buildings and structures.

6 Grounds for Determination

6.1.1 In accordance with the Act, the relevant planning authority may only refuse to approve plans or specifications for the purposes of paragraph 3 of Schedule 17 on the following grounds:

- The design or external appearance of the building works ought to be modified:
  - To preserve the local environment or local amenity,
  - To prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or
  - To preserve a site of archaeological or historic interest or nature conservation value.
- If the development does not form part of a scheduled work, that the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.
- That the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

6.2 Preserve the local environment or local amenity

6.2.1 This design approach expresses the civil engineering in an honest but visually controlled way.

6.2.2 A high-quality finish has been developed to address concerns over the weathering of smooth concrete and its vulnerability to vandalism in the form of graffiti. An inherent characteristic of concrete is its plastic nature when cast and the ability to form profiles in the surface and it has been concluded that a vertical rib 40mm deep at approximately 50mm centres would most effectively control the appearance of the wall and maintain its appearance in the long term.

6.2.3 The ribs will effectively create channels in the surface guiding rain or seepage carrying dirt deposits and the striped appearance will help disguise variation in colouration resulting from this.

6.2.4 The combination of fine grain vertical ribs and continuous horizontal bands will create a distinctive overall appearance appropriate to this specific location which acts as a gateway space to the high-speed trains arriving and leaving Euston Station.

6.2.5 To make the architecture of the wall even more special and to its location, the proposal is to make the profile of the architectural finish unique to HS2 by designing a customised form used only on structures on the new high-speed line between Euston and Birmingham. Bridge abutments, wing walls and other structures along the line will feature

the same unique HS2 profile, wherever possible. This architectural treatment will culminate at the West Retaining Wall which, by its sheer scale, will be the most impressive of all these structures and be a fitting celebration of passenger arrival to London.

6.2.6 The unique architectural language of the wall will enhance and complement its immediate surroundings.

6.3 Road safety or on the free flow of traffic in the local area

6.3.1 It is not considered that the works will have any detrimental impact on road safety or the free flow of traffic in the local area as the works are located within the rail corridor. Furthermore, the works that part of this application will not impede on the local network. Road safety and traffic impacts are dealt with under the EMRs, particularly the Code of Construction Practice.

6.4 Archaeological or historic interest or nature conservation value

6.4.1 The EMR's (see section 1.5), specifically the Code of Construction Practice, and the Heritage Planning Memorandum set out the control measures for heritage assets (including archaeology) and ecology in relation to the design development and construction of the HS2 scheme.

6.4.2 There are no listed designated heritage assets directly adjacent to the Euston Throat Retained Cut and therefore there will be no physical impacts during construction as part of these works[1].

7 Construction Programme

7.1.1 The works relating to the construction of Euston Throat Retained Cut are anticipated (but may be subject to change) to proceed in accordance with the following programme:

Table 4: Outline programme of works

Activity	Estimated Completion of Works (quarter/year)
HS2 Site Set Up for West and East Retaining Wall (Euston Throat)	First Quarter 2020

[1] Subject to agreement between HS2 Ltd and London Borough of Camden on the extent of the Parkway Tunnel and Cutting (Grade II listed building).

Activity	Estimated Completion of Works (quarter/year)
Westside and Eastside Piling Works commence	Second Quarter 2020
Complete Excavation works & commence wall construction	Fourth Quarter 2022
Complete West and East Retaining Wall	Second Quarter 2024
Demolition of Network Rail wall & piling close to tracks complete	Second Quarter 2022
Works under Hampstead Road Bridge Commence	Third Quarter 2025
Works complete & Site Cleared	First Quarter 2026

8 Other Consents

8.1.1 Other main consents likely to be required for the works are summarised in Table 5 below. Consent requirements may alter during design development and further consents not identified in Table 5 may be required.

Table 5: Other Consent Requirements

Consent	Works Requiring Consent
Schedule 4 of the Act	New temporary accesses to the construction worksites
Schedule 17 of the Act	Bringing into use and site restoration for Langdale Open Space. Plans and Specifications for above ground structures.
Schedule 33 of the Act for protective provisions	Relating to groundwater – piling into a sub-surface aquifer Bridge works and associated construction compounds
Section 61 of the Control of Pollution Act 1974	Construction compound