Cobourg Street UKPN Substation Schedule 17 Plans & Specifications - Written Statement

Document No. 1CP01-MDS_ARP-TP-REP-SS08_SL23-990006
Work Package No.

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STAKEHOLDER REVIEW REQUIRED (SRR)	PURPOSE OF SRR
☒COUNTY/DISTRICT/LONDON BOROUGH COUNCIL ☐LOV ☐LUL ☐NRL ☐TFL ☐UTILTIES COMPANY ☐OTHER	☐ACCEPTANCE ☐APPROVAL ☐NO OBJECTION ☒CONSENT

Disclaimer:

This report takes into account the particular instructions and requirements of the Project as defined in SDSC Contract for the provision of design services Euston dated 13 February 2018 including any amendments to it.
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HS2

High Speed Rail (London – West Midlands) Act 2017

HS2 Ltd

London Borough of Camden

Construction of a UKPN Substation building comprising two permanent transformers and a Transition Field Upgrade (TFU) unit, with a masonry façade finish

Schedule 17 Plans and Specifications Written Statement for Information

Submission Reference Number: LBC.PS.10016

Document Reference: 1CP01-MDS_ARP-TP-REP-SS08_SL23-990006

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1.1 Background Information

Table 1: Schedule 17 address details and description of works

Site	Details
Scheme	High Speed Two
Applicant	High Speed Two (HS2) Limited
Applicant Address	*c/o Agent:* Mace Dragados Joint Venture (MDjv) The Podium, 2nd Floor 1 Eversholt Street NW1 2DN
Site Address	Land north of the Exmouth Arms, London, NW1 2HR The works are located at; X (Easting): 529348, Y (Northing): 182656 The Location Plan, drawing no. 1CP01-MDS_ARP-TP-DLO-SS08_SL20_010211, illustrates the site boundary.
Description	Plans and Specifications submission under Schedule 17 of the High Speed Rail (London- West Midlands) Act 2017 for works comprising: Construction of a UKPN Substation building comprising two permanent transformers and a Transition Field Upgrade (TFU) unit, with a masonry façade finish - building works (Paragraph 2).

1.2 Terms of Reference

1.2.1 This Written Statement is compiled in accordance with the High Speed Two (HS2) Phase 1 Planning Memorandum and Planning Forum Notes (PFNs) as required by the planning regime established under Schedule 17 of the High-Speed Rail (London – West Midlands) Act 2017 ('the Act').

1.2.2 This statement provides the London Borough of Camden (LBC) with information to assist with the determination of the Plans and Specifications submission under Schedule 17, in relation to the above description of works.

1.2.3 The information in this Written Statement is provided for information to assist in determining the request for approval. It is not for approval.

1.3 Introduction to High Speed 2

1.3.1 HS2 is a new high speed railway network that will 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 and so provide opportunities to improve existing commuter, regional passenger and freight services.

1.3.2 Phase One of HS2 will provide a dedicated high speed rail service 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.

1.3.3 For further information on HS2 and the route through London Borough of Camden please refer to the Planning Context Report for LBC, deposited with the Council by HS2 Ltd.

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

1.4.1 The Act provides powers for the construction and operation of Phase 1 of High Speed Two. HS2 Ltd is the nominated undertaker in relation to the works subject to this plans and specifications submission.

1.4.2 Section 20 to the Act grants deemed planning permission for the works authorised by it, subject to the conditions set out in Schedule 17. Schedule 17 includes conditions requiring the following matters to be approved or agreed by the relevant LPA.

- Construction arrangements (including large goods vehicle routes);
- Plans and Specifications;
- Bringing into use requests; and
- Site restoration schemes.

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

1.4.4 Schedule 17 of the Act sets out the grounds on which the LPA may impose conditions on approvals or refuse requests for approval.

1.4.5 This Written Statement includes information supporting the Plans and Specifications submission in relation to the matters outlined in **Table 2** below.

Table 2: Schedule 17 Plans and Specifications Submission Details

Site	Details
Plans and Specifications (permanent works)	Land North of Exmouth Arms • Building works – Construction of a UKPN Substation building comprising two permanent transformers and a Transition Field Upgrade (TFU) unit, with a masonry façade finish.

1.4.6 The works to which this application relates, and the cumulative impact of the works in conjunction with other HS2 development, have been assessed and are compliant with paragraph 1.1.3 (bullet point 2) of the HS2 Phase 1 Environmental Minimum Requirements General Principles[1].

1.5 High Speed Two: Code of Construction Practice

1.5.1 HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). The EMRs include the HS2 Code of Construction Practice (CoCP).

1.5.2 The works subject to this request for approval of Plans and Specifications will be undertaken in accordance with the Code of Construction Practice, and with the Class Approval issued by the Secretary of State (March 2017)[2].

1.6 Schedule 17 Statutory Guidance

1.6.1 The Schedule 17 Statutory Guidance issued by the Secretary of State (November 2023)[3] provides guidance to all planning authorities determining requests for approval under Schedule 17 to the Act.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/618074/General_principles.pdf
[2] https://www.gov.uk/government/publications/high-speed-rail-london-west-midlands-act-2017-class-approval
[3] https://www.gov.uk/government/publications/high-speed-rail-london-to-west-midlands-act-2017-schedule-17-statutory-guidance/high-speed-rail-london-west-midlands-act-2017-schedule-17-statutory-guidance

Paragraph 20 of the Statutory Guidance states that planning authorities should not through the exercise of Schedule 17 seek to modify controls already in place such as the Environmental Minimum Requirements, other controls in the Act such as those under Schedule 4 or 33, or existing legislation.

1.7 Structure of Written Statement

1.7.1 This Written Statement is structured as follows:

- A description of the location and main characteristics of the area in which the works will be carried out is provided in **Section 2**;
- **Section 3** describes the main works being undertaken in the area, as set out in Schedule 1 of the Act, and those that are the subject of this Schedule 17 Plans and Specifications submission;
- The design approach and rationale for the works which are the subject of this Schedule 17 Plans and Specifications submission are described in **Section 4**;
- **Section 5** summarises the pre-submission consultations that were undertaken, including a list of the consultees, dates, attendees at meetings and a brief summary of the outcome of these discussions;
- A high-level programme for the works and how they fit into the wider programme for other works in the area, as set out in Schedule 1 of the Act, is provided in **Section 6**; and
- **Section 7** identifies any other main consents, or known forthcoming consents associated with the works.

2 Site Location and Characteristics

2.1 Site Location

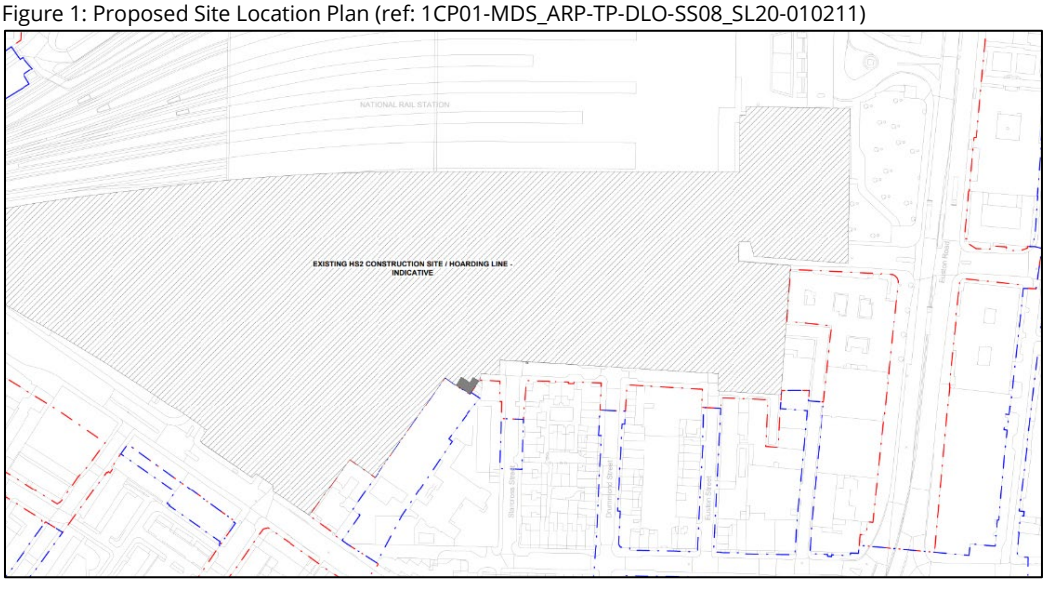
Application Site Description

2.1.1 The application site is currently located within an area bound by construction hoardings, for works authorised by the Act for constructing the new HS2 Euston Station within the London Borough of Camden. The new station will act as the southern terminus of the HS2 Phase 1 route when complete.

2.1.2 To the north and east of the site is the main worksite for the construction of the HS2 Euston Station, which will be subject to a separate Schedule 17 Plans and Specifications application. The site is adjacent to the rear of the Exmouth Arms public house building and near the intersection between Starcross Street and Cobourg Street. The southern edge of the application site contains a doorway into the Exmouth Arms building but HS2 Ltd has extinguished rights access through this gate to the rear courtyard of the pub. To the north-west of the site is the former Maria Fidelis Catholic School site (part of the wider construction hoarding area), as well as the remainder of the HS2 Euston construction site bound by A400 Hampstead Road.

2.1.3 **Figure 1** shows the application site boundary and the substation building outline for approval under this Schedule 17 application – please refer to the submitted Proposed Location Plan (1CP01-MDS_ARP-TP-DLO-SS08_SL20_010211).

Figure 1: Proposed Site Location Plan (ref: 1CP01-MDS_ARP-TP-DLO-SS08_SL20-010211)



2.1.4 The Euston Skills Centre (operated by the London Borough of Camden) and Site Accommodation (for the construction of HS2 Euston Station) lies to the west of the application site, on the grounds of the former Maria Fidelis school (granted under planning permission ref: 2021/3796/P, as amended by 2023/2485/P).

2.1.5 Planning consent was also granted (subject to completion of a Section 106 Agreement) in October 2020 for the mixed-use redevelopment of the former Maria Fidelis school building (LBC Ref: 2019/3091/P, as amended by 2023/4110/P and 2023/4684/P (currently under determination)).

2.1.6 The application site has an area of 73sqm. It measures 9.9m at its widest to the east and 9.2m across where the site meets the Exmouth Arms building, tapering to a point at the site's northern edge. The site is currently occupied by temporary substations that are proposed to be relocated and sits behind a hoarding line surrounding HS2 Euston Station works at the northern edge of Cobourg Street.

Pre-existing area character

2.1.7 The site is within a densely built-up environment with residential, retail and office occupiers, and is therefore placed in a well-connected pedestrian network.

2.1.8 The site's current surrounding character is dominated by the construction site for the HS2 Euston Station and associated works. This dominance of construction site works is temporary and is expected to last until the completion of main HS2 Euston station works.

Statutory designations and allocations

2.1.9 There are no statutory designations within or close to the site.

2.1.10 The site is not within a Conservation Area. The closest Conservation Area is the Bloomsbury Conservation Area approximately 200m to the south-east. There are no listed buildings or other heritage assets, either on-site or immediately adjacent to the site. The closest listed building is 116 Drummond Street and attached railings (Grade II) which is approximately 100m southeast of the site and 185-191 North Gower Street which is located approximately 200 metres from site. No settings of heritage assets will be affected by development at the application site.

Future context

2.1.11 The site is located immediately adjacent to the proposed HS2 Euston Station, which is authorised by the Act.

2.1.12 In line with Government direction, work to construct the HS2 station at Euston was paused on 9 March 2023 due to inflationary pressure and the need to find a more affordable design. The Department for Transport has begun work to deliver comprehensive regeneration across the Euston Campus, led by a development corporation or equivalent and using private funding to deliver a smaller and less costly HS2 station. The construction of this sub-station will serve buildings in the local community, and forms part of continuing preparatory work to enable delivery of the future station.

2.1.13 The proposed design of the new station and surrounding urban realm works are subject to future applications under Schedule 17 of the HS2 Act for London Borough of Camden's approval.

2.1.14 Owing to the importance of the Cobourg Street frontage, the UKPN substation site will be important for HS2 Euston Station's overall public realm, retail environment, and movement networks.

2.1.15 The former Maria Fidelis Catholic School site to the west of the site will be used for a temporary period for the Euston Skills Centre (for London Borough of Camden) and Site Accommodation (for the HS2 construction works), after which part of the land will be returned to London & Continental Railways and London Borough of Camden.

2.2 Surrounding Highway Network

2.2.1 The application site is currently within the wider HS2 Euston construction hoarding lines north of the Exmouth Arms building and is likely to remain as such for the majority of the main station construction programme. It is very close to Cobourg Street, a small road linking Euston Street, Drummond Street and Starcross Street. Cobourg Street terminates at the Exmouth Arms building to the north. Cobourg Street is currently part of a localised street network and does not provide thoroughfare to Euston Road.

2.2.2 The application site is also close to Starcross Street, which forms a junction with Cobourg Street at the Exmouth Arms pub building. Starcross Street extends westwards to connect to North Gower Street.

2.2.3 Euston Road (A501) and Hampstead Road (A400) are two arterial roads in central-west London close to the site. From the site Euston Road is accessed via Euston Street and Melton Street, whereas Hampstead Road is accessed via Drummond Street.

3 Description of the Works

3.1 Introduction

3.1.1 This Written Statement supports the Schedule 17 submission for the approval of Plans and Specifications for the construction of a UKPN Substation building comprising two permanent transformers and a Transition Field Upgrade (TFU) unit, with a masonry façade finish at land north of the Exmouth Arms pub.

3.1.2 The Plans and Specifications submitted for approval are listed in the pro-forma accompanying the application. A summary of the proposed works for approval is provided in Section 3.2 below.

3.1.3 Sections 3.5 to 3.8 provides information on other aspects of the works to assist in understanding the context of planned construction methodology and how EMR controls apply to the works being submitted for approval. The information in Sections 3.6-3.8 is not for approval under Schedule 17.

3.2 Works for Approval

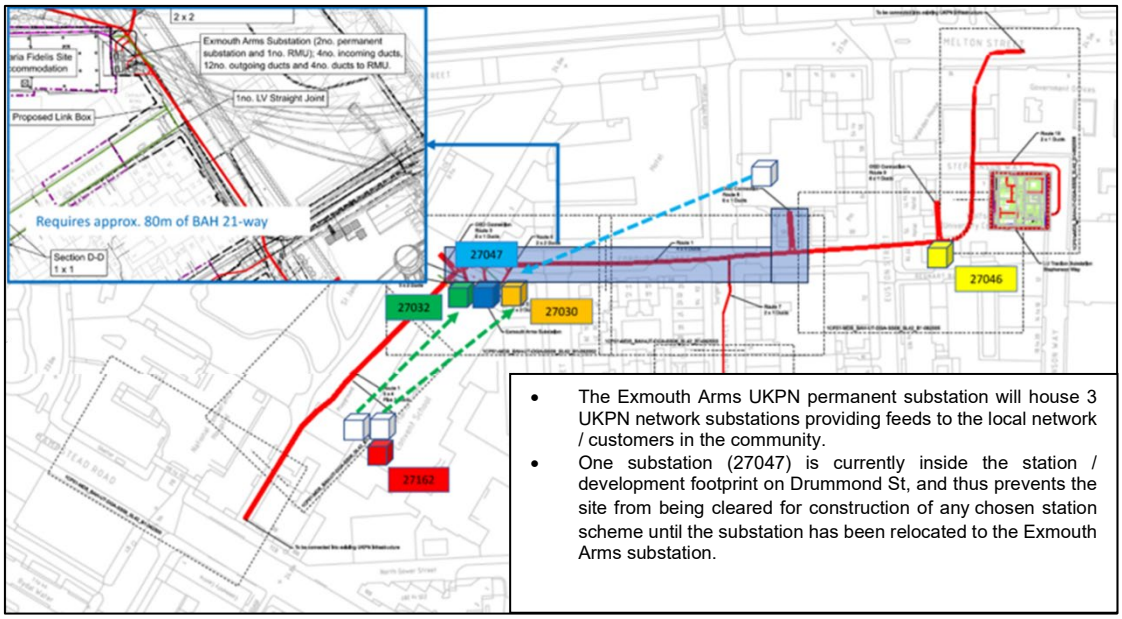
3.2.1 HS2 Euston Station works necessitate the relocation of five temporary UKPN transformers to new permanent location, two of which are to be permanently relocated to land adjacent to the Exmouth Arms pub.

3.2.2 The transformers to be relocated to the UKPN Exmouth Arms application site are currently situated in temporary locations, and are operating to compensate for transformers which were originally located in / around buildings which have previously been demolished as part of enabling works for HS2.

3.2.3 Two transformers will be relocated from land within the main HS2 construction site, to the north of the Maria Fidelis / Euston Skills Centre site. Along with the two transformers, a new Transition Field Upgrade (TFU) unit will be relocated from Drummond Street to the new substation building, all at grade level.

3.2.4 The existing location of the temporary transformers is shown in **Figure 2** below.

Figure 2: Diagram showing current location of three UKPN temporary transformers and planned consolidation into one location adjacent to the Exmouth Arms public house



3.2.5 The transformers are not functionally related to the upcoming HS2 Euston Station but are critical in continually supplying electrical power to the local neighbourhood buildings and institutions.

3.2.6 The transformers will supply electrical power in the area bounded by Hampstead Road, Starcross Street, North Gower Street, Euston Street and Melton Street. The transformers will also provide critical network interconnectivity to enable electrical backfeed and restoration of electrical supply in the case of a fault. For this reason, their early relocation is critical to safeguard local power supply and therefore needs to be implemented ahead of the main station works.

3.2.7 The relocation of the transformers from their existing locations, within the main HS2 construction site and from Drummond Street, will also free up land which will eventually be required for the construction and delivery of any chosen station scheme.

3.2.8 The following works are for approval for approval under Schedule 17 Paragraph 2 of the Act (Building Works):

Construction of a UKPN Substation building comprising two permanent transformers and a Transition Field Upgrade (TFU) unit, with a masonry façade finish.

3.2.9 The surrounding urban realm does not form part of this application and will be subject to separate approval. Details of the proposed site location can be found on drawing number: 1CP01-MDS_ARP-TP-DLO-SS08_SL20_010211.

3.2.10 The proposed substation will be built in an L-Shape footprint as per the site constraints and functional requirements of UKPN. The footprint floorspace is proposed to be 73m^2 in size. The building's internal structural portion (not for approval) will be made of reinforced concrete to meet UKPN's fire-proofing requirements, with the addition of a masonry exterior façade. The masonry walls will be 3.5m high to align with the lower portion of the Exmouth Arms pub. The walls will include the construction of a parapet to allow for waterproofing with the walls having an internal height of 2.6m. There will be a flat reinforced concrete roof with a waterproof membrane to provide adequate falls to two downpipes, further details on these can be found in Section 4.1.

3.2.11 The roof finish will be a waterproof membrane, details of which can be found on drawing number: 1CP01-MDS_ARP-TP-DGA-SS08-SL20_022323.

3.2.12 Elevations detailing the scale of the building for approval can be found on drawing numbers 1CP01-MDS_ARP-TP-DEL-SS08-SL20_022314, 022315 & 022316. Sections detailing the scale of the building for approval can be found on drawing number 1CP01-MDS_ARP-TP-DSE-SS08-SL20_022332.

3.2.13 The proposed building design includes three louvred doors which will allow access to the transformers and provide adequate natural ventilation. All three doors will have the same external appearance for a uniform aesthetic. The louvred door to the TFU requires less ventilation, and hence will include a backing panel to the interior for security purposes with no effect on external appearance. An upstand of 150mm is provided for flood mitigation.

3.2.14 The external wall materials of the building will be masonry. Following discussions with the London Borough of Camden on 26 March 2024, it is proposed the brick pattern will be Flemish bond and colour will be red, as shown in **Figure 3** below.

Figure 3: Indicative Street View Sketch from Cobourg Street (external landscaping materials and boundary wall are indictive and not subject to approval as part of this Schedule 17 submission)

3.2.15 The design has been cognisant of the access and maintenance requirements (including requirements for lorry loader access) of the UKPN substation. As such, the future urban realm around the substation will need to enable access for maintenance purposes.

Planning conditions

3.2.16 Paragraph 2(7) of the Act allows the relevant planning authority to impose conditions on approval building works on a ground referred to in paragraph 2(5) and 2(6).

3.2.17 As details of the design have been presented to and accepted by the London Borough of Camden in pre-application discussions, it is not anticipated that any planning conditions will be necessary.

3.3 Documents and drawings for approval and information

3.3.1 The following documents and drawings have been submitted for approval as part of this application (**Table 3**):

Table 3: Documents to be submitted for approval

Document Title	Document Number
Proposed General Arrangement- Ground Level	1CP01-MDS_ARP-TP-DGA-SS08_SL20-022322
Proposed General Arrangement- Roof Level	1CP01-MDS_ARP-TP-DGA-SS08_SL20-022323
Proposed Elevation- North	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022314
Proposed Elevation- East	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022315
Proposed Elevation- West	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022316
Section- Proposed	1CP01-MDS_ARP-TP-DSE-SS08_SL20-022332

3.3.2 The following documents and drawings have been submitted for information only (**Table 4**):

Table 4: Documents to be submitted for information

Document Title	Document Number
Plans and Specifications Pro Forma	1CP01-MDS_ARP-TP-FRM-SS08_SL23-990019
Submission Letter	1CP01-MDS_ARP-TP-CRO-SS08_SL23-990004
Written Statement	1CP01-MDS_ARP-TP-REP-SS08_SL23-990006
Location Plan- Existing	1CP01-MDS_ARP-TP-DLO-SS08_SL20-010210
Location Plan- Proposed	1CP01-MDS_ARP-TP-DLO-SS08_SL20-010211
General Arrangement- Existing	1CP01-MDS_ARP-TP-DGA-SS08_SL20-022321
Existing Elevation- North	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022311
Existing Elevation- East	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022312
Existing Elevation- West	1CP01-MDS_ARP-TP-DEL-SS08_SL20-022313
Section- Existing	1CP01-MDS_ARP-TP-DSE-SS08_SL20-022331

3.3.3 A Design and Access Statement will not be submitted, as the proposed scheme is not part of a station or Key Design Element as defined in HS2 Phase One Information Paper D1: Design Policy. [4]

3.4 Planning and Design Considerations

3.4.1 In accordance with Schedule 17 of the Act, if the relevant planning authority is a qualifying authority, it may only determine the submitted plans and specifications on the grounds specified in relevant paragraphs of the Act.

3.4.2 **Table 5** sets out the relevant grounds for determination as laid out within paragraph 2 (condition relating to building works).

Table 5: Schedule 17 Grounds of determination relating to types of proposed works

Schedule 17 Paragraph	Wording	UKPN Works	Grounds for determination
2 – Condition relating to building works	(1) To the extent that development consists of building works, it must be carried out in accordance with plans and specifications for the time being approved by the relevant planning authority	UKPN Substation building with a masonry façade finish.	a) The design or external appearance of the building works ought to be modified – (i) to preserve the local environment or local amenity, (ii) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or (iii) to preserve a site of archaeological or historic interest or nature conservation value, and is reasonably capable of being so modified, or b) The development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

3.4.3 Each element of the proposal is assessed against the applicable grounds as follows, demonstrating that modification to the proposal is not required.

(i) Local environment and local amenity

[4] Full Document accessed here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672265/D1_-_Design_Policy_v1.8.pdf

3.4.4 The design responds to the immediate context by mimicking the horizontal datum of the Exmouth Arms pub in scale and using similar materials and tones. The building has been optimised to function, using the most efficient layout and therefore minimising land take.

3.4.5 Potential antisocial behaviour will be mitigated through lighting. The lighting strategy for the wider HS2 Euston urban realm will include this UKPN building and the immediate surroundings to ensure no unlit areas. Schedule 17 consent for this lighting will be sought as part of the wider approvals for the HS2 proposals at Euston. Until the wider public realm is open to the public, with a lighting scheme operational, the UKPN building will be behind construction hoardings.

3.4.6 Additionally, the façade will not include any protruding masonry to mitigate any possibility of climbing onto the structure. Rainwater pipes will be protected with access panels which have been designed to reduce any recess and will meet security standards. The parapet height is designed to align with the lower portion of the Exmouth Arms pub and offers a secondary benefit as to make it difficult for pedestrians to climb onto the roof.

(ii) Road safety and free flow of traffic

3.4.7 Maintenance of the transformers will be extremely infrequent (approx. less than once a year). The building has been designed in such a way that sufficient allowance has been made for a lorry loader vehicle to safely park adjacent to the UKPN substation should maintenance be required of the building itself every 20 – 25 years, and this allowance will be integrated into future proposals for the immediate environs of the substation building. **Figure 4** illustrates the loader vehicle access allowance.

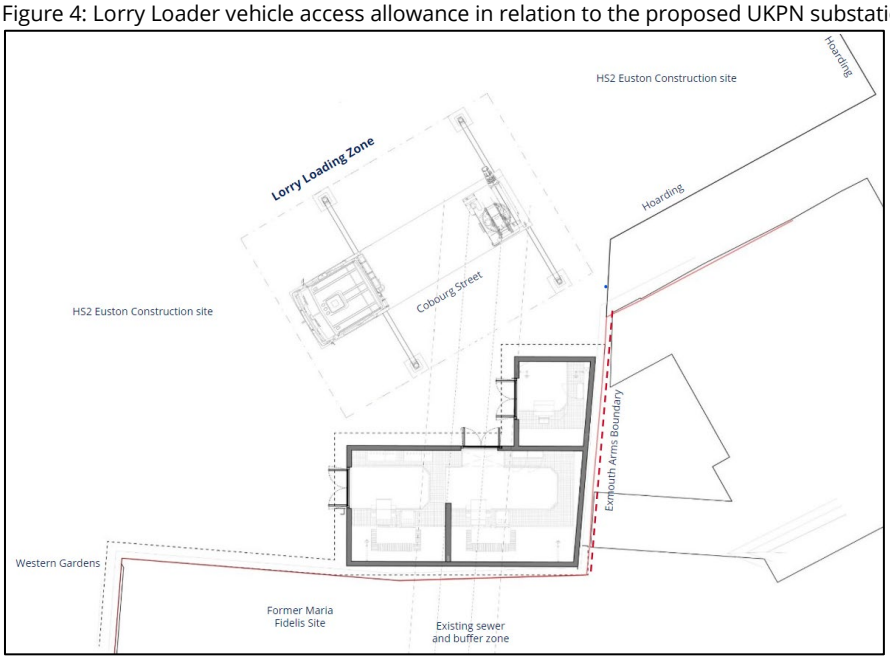
3.4.8 A lorry loader vehicle will be necessary to replace the transformers within the UKPN substation. This vehicle is similar in dimensions to a fire special appliance, which will be approximately 6.2m wide with outriggers deployed. Highways area south of the proposed UKPN substation will be approximately 8m wide, and with no additional space requirements for traffic through-flow (as highways will be closed during times of emergency and/or maintenance), can safely accommodate a lorry loader vehicle.

3.4.9 The arrangements set out above will be required extremely infrequently, approximately once every 20-25 years where a maintenance of the building is required. Given the infrequency of the need for vehicular access, the impact of the building on road safety and free flow of traffic is

minimised as far as possible whilst maintaining the substation's functional requirements.

3.4.10 The substation building will have no impact on access to, and servicing of, the Exmouth Arms Pub or the Maria Fidelis Site.

Figure 4: Lorry Loader vehicle access allowance in relation to the proposed UKPN substation building



(iii) Archaeological or historic interest or nature conservation value

3.4.11 There are no archaeological, heritage or ecological designations on-site, or adjacent to the site. The proposal will therefore not impact on any of the above categories.

(iv) Whether the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits

3.4.12 The currently proposed UKPN substation location makes the best use of a land plot near Exmouth Arms, and seeks to minimise land take by using an L-shaped building footprint to fit alongside the Exmouth Arms pub. The surrounding area the wider HS2 Euston development site is heavily constrained by below ground utilities and drainage, and therefore site remains the most suitable location for the substation building.

3.4.13 This site also meets the UKPN operational requirements regarding unrestricted personnel and vehicular access for operation and maintenance as well as the location's proximity to the Point of Connection for the UKPN distribution network.

3.5 Indicative Mitigation

3.5.1 The Planning Memorandum (paragraph 7.5.2) states: "When designs of HS2 works are submitted for approval, the nominated undertaker shall, where reasonably necessary for the proper consideration of the design proposed, provide an indication or outline of the appropriate mitigation measures (if any) which it intends to submit subsequently under paragraphs 9 or 12 of the Planning Conditions Schedule….' and '…..While not material to approvals under paragraph 2 or 3, this information will provide reassurance in advance of the request for approval under paragraph 9 that the mitigation is appropriate, and will present an opportunity to raise concerns."

3.5.2 The proposed UKPN substation is a small building that will not generate excessive noise, emissions, or footfall. It will only be accessed in the extremely rare occasion of maintenance, which is expected at minimum less than once a year. Approximately every 7-8 years, maintenance of the site would take place and would take half a day to complete. Additionally, every 20-25 years, a lorry loader vehicle would be required to replace the transformers.

3.5.3 The noise and vibration impact of the proposed substation on nearby sensitive receptors has been considered. The most affected sensitive receptor is the Exmouth Arms pub, which has accommodation in rooms above the pub. Noise impact on the public realm has also been considered.

3.5.4 The noise criteria and predicted noise levels are shown in the Table 6 & 7 below.

Table 6: Noise parameters and projected noise levels- UKPN Substation

Descriptor	Parameter	Noise Level
24 hr noise criterion at Exmouth Arms façade Standard noise criterion	BS4142:2014 rating level criterion	≤ 45 dB L_{Aeq}
Predicted UKPN substation noise level at Exmouth Arms façade	BS4142:2014 Specific noise level	32 dB L_{Aeq}
Penalty for tonal sound	BS4142:2014 Character Correction	+ 6 dB
Total Predicted substation rating noise level	BS4142:2014 rating level	38 dB L_{Aeq}

Table 7: Noise parameters and projected noise levels- Public Realm

Descriptor	Parameter	Noise Level
Public realm standard noise criterion (min. 3m from plant installation)	Normal operational conditions noise level L_{Aeq}	≤ 50 dB L_{Aeq}
Predicted UKPN noise level at Public realm, 3m from UKPN façade	Normal operational conditions maximum level L_{Aeq}	46 dB L_{Aeq}

3.5.5 As demonstrated by the **Table 6 & 7** above, the predicted noise levels (measured in decibels-dB) meet the noise criteria for both the UKPN Substation itself and the projected UKPN substation Noise Level at Public realm level. Please note that these figures above are each cumulative limit of which the UKPN substation contributes only a part.

3.5.6 The acoustical success of the design relies on the massing and orientation of the building, with the louvred doors facing away from the Exmouth Arms, and self-screened by the UKPN building.

3.5.7 The building has been designed so that the transformers within the UKPN building will be mounted on vibration isolation pads, specified to achieve

95% isolation efficiency. This is a sufficient level of isolation, such that the risk of adverse levels of structure borne noise remain low.

3.5.8 Following a review of the plans against the scheme assessed in the Environmental Statement, it was determined that there were no new or different significant effects and that the mitigation as set out in the HS2 Code of Construction Practice (CoCP) would remain applicable.

3.5.9 It should also be noted that BREEAM assessment was not undertaken as there are no occupied spaces within the UKPN substation.

3.6 Construction Method

3.6.1 This section summarises the general construction methodology and the main temporary works arrangements. The arrangements described are submitted for information only and thus do not form part of this request for approval.

3.6.2 The main phase of the Construction works will be delivered in three phases:

- Groundworks and bottom slab construction;
- Construction of the walls;
- Construction of the top slab; and
- Construction of the façade and internal works.

3.6.3 There will be no temporary site compounds in place as at the time of construction, the substation will be encompassed within the main HS2 Station construction site.

3.6.4 Site Access Arrangements including Lorry Routes fall under the existing main station construction site access arrangements and approvals.

3.6.5 The substation itself will be built at grade and the spoil generated is anticipated to be very limited. Spoil management will fall under the chosen subcontractor's jurisdiction in conjunction with any other works that they are undertaking in area. It will also be line with the approved waste management plans.

3.7 Historic Environment

3.7.1 As set out within the HS2 Heritage Memorandum (part of the HS2 Environmental Minimum Requirements), 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 along the route. 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 The HS2 Heritage Memorandum also sets out how the historic environment (including heritage assets and their setting) will be addressed during design. The HS2 Environmental Memorandum sets out the approach to landscape and visual mitigation which takes account of the historic environment.

3.7.3 The application site does not contain any heritage assets, nor within the setting of any surrounding designated heritage assets, and therefore the proposal will not result in a change in the surrounding historical environment.

3.8 Environmental Management During Construction

3.8.1 The Environmental Memorandum (part of the HS2 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://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803294/P1S-HS2-EV-REP-S000-000006_-_LBC_SCSJV.pdf

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 Approach and Rationale

4.1 Design Approach

4.1.1 The design directly responds to the immediate context by continuing the horizontal datum of the Exmouth Arms pub in scale and using a similar palette of materials and tones.

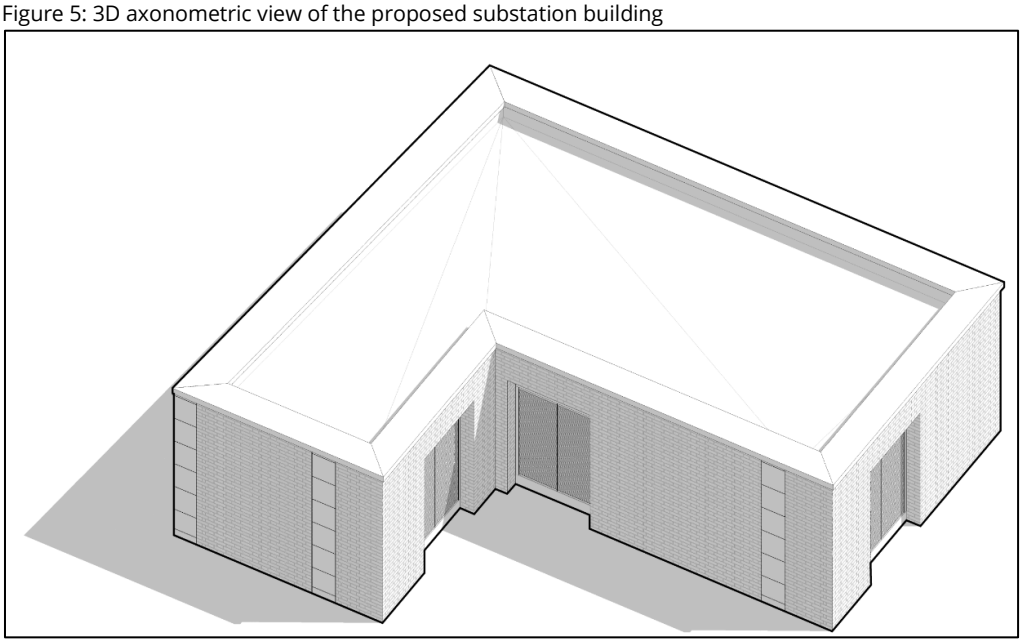
4.1.2 The masonry clad building meets the required UKPN standards in terms of setting out, scale, access, ventilation and fire. A masonry wall also helps integrate the building with the surrounding architectural context.

4.1.3 **Figure 5** below provides a 3D axonometric view of the proposed substation building.

4.1.4 The two external rainwater downpipes will be enclosed in grey metal casing, the colour of which will as per the substation doors (UKPN standard - BS Grey 16-A-11).

4.1.5 The building must be offset from the Exmouth Arms and the boundary with the former Maria Fidelis school site. This allows for adequate foundations, drainage considerations, finishes, and sufficient space allowance for existing substructures. A panel will also be provided to cover the gap with the Exmouth Arms party wall.

Figure 5: 3D axonometric view of the proposed substation building



4.1.6 Following design studies and pre-application engagement with Camden, a masonry façade was selected as the most appropriate material to complement existing and proposed context.

4.1.7 In terms of how the masonry façade will integrate with the rest of the substation elements, the louvred doors are in line with the inner concrete structure, set back from the face of the masonry with brick reveals and soffit returns. These will be grey colour so that they are recessive in their appearance.

4.1.8 A thin metal capping will provide a cover to the masonry façade and drain water back to the roof. Vertical drainpipes will be concealed with an access metal panel which will be flush with the masonry façade; colour to match the doors.

4.2 Design Constraints

4.2.1 This single-storey L-shaped building has been designed as efficiently as possible to reflect the functional requirements of UKPN. The height follows the lower section of the adjacent Exmouth Arms pub to create a continuous datum. This allows the internal height of the building to be the minimum when considering UKPN functional requirements whilst also providing an adequate parapet for robust waterproofing.

4.2.2 UKPN have strict material constraints due to requiring low maintenance and security concerns. Additionally, some HS2 standards apply considering the location in proximity to the station and neighbouring properties. The building is proposed to achieve 4-hour fire rating with a masonry façade included. This façade must not provide footholds such as protruding bricks to reduce the likelihood of someone climbing the structure.

4.2.3 Three louvred doors are required to allow access for maintenance and replacement of transformers as well as natural ventilation requirements. The doors are positioned for efficient access and allow a door swing of 90 degrees. A clear frontage is required to allow access but most prominently in the event the transformers require replacing. This would mean a loader vehicle is required and a minimum distance of 10m to the UKPN doors is necessary. As a result, special care will be required to not propose obstructions on the urban realm (subject of ongoing design development and future applications under the Act).

4.2.4 The site is adjacent to the former Maria Fidelis school site, which is now houses London Borough of Camden's Euston Skills Centre and a Site Accommodation facility for HS2 construction workers.

4.2.5 The site is constrained to the south by the Exmouth Arms public house which is outside the Act Limits.

4.3 Options Considered

4.3.1 As part of the design process, in-built seating within the façade was considered. However, this proved contradictory to the UKPN health and safety requirements. As a result, the inclusion of seating was rejected by UKPN.

4.3.2 The introduction of a sedum roof was also assessed considering the low height of the building and ability for people to view from the upper storeys of adjacent buildings. However, it proved difficult to satisfy UKPN fire requirements and need to maintain the roof. Although a green roof would be a visual advantage, the size of the development would provide no major biodiversity benefit. Similarly, a blue roof would provide the benefit of retention of water but again this suggestion has proved difficult to satisfy UKPN's maintenance requirements.

5 Pre-submission Engagement

5.1 London Borough of Camden

5.1.1 The London Borough of Camden has been engaged on the design development of the UKPN substation proposals. An early scheme comprising a dual-substation above-ground structure with below-ground access to a third substation with screening and rear wall. Subsequently, the design has developed to comprise the current scheme for Schedule 17 submission with a substation building containing two transformers and a TFU device, all above ground.

5.1.2 Feedback from previous engagement iterations is relevant to the proposed scheme's engagement history and have been included in this Written Statement.

5.1.3 Pre-submission engagement with the Local Planning Authority, statutory consultees and other relevant stakeholders is summarised in **Table 8** below.

5.2 Greater London Authority and Transport for London

5.2.1 Engagement with the Greater London Authority (GLA), including Transport for London (TfL), is required in accordance with commitments given during the passage of the HS2 Phase One Hybrid Bill. Both the GLA and TfL have been invited to all pre-application engagement meetings in 2021 and 2022.

5.3 Site operator engagement

5.3.1 UKPN (as the proposed building's operator and future holder of land interest) on-site has been engaged with extensively during design development. For the 2021 scheme, an engagement meeting with UKPN was carried out in April 2021 to understand UKPN's requirements and aspirations. In the subsequent development of the 2021 scheme, UKPN has confirmed that the principle of developing a double-transformer substation all above ground (with no additional land take) is acceptable.

5.3.2 UKPN has been regularly engaged via numerous weekly Design Team Meetings (DTM), and their technical requirements have been recorded and checked regularly with design parameters.

5.4 Stakeholder engagement

5.4.1 Exmouth Arms as the adjoining property owner and public house operator, Drummond Street Traders, as well as London Continental Railways and London Borough of Camden as landowners at the time of the adjoining former Maria Fidelis School site, had also been consulted on the proposed development. Details of engagement outcome can be seen in **Table 8** below.

5.5 Public Engagement

5.5.1 Public engagement is not required, as the proposed UKPN Substations scheme is not part of a station or key design element (defined in HS2 Information Paper D1).

Table 8: Pre-submission Consultation with LPA, Statutory Consultees and local stakeholders

Consultee Name	Consultation Date	Method of Consultation	Summary of Consultation Outcome
London Borough of Camden	3 December 2020 25 February 2021 22 April 2021 17 May 2021 30 June 2021 9 November 2022 26 March 2024	Meeting (Teams and In-Person)	Pre-application meetings on the design of proposed elements, and the structure and content of the Schedule 17 application. 2021 Scheme London Borough of Camden supportive on the principle of substations location, and design concept of screen, gate, planting, integrated seating and rear wall. 2022 Scheme Agreement with London Borough of Camden on subject of approval being a building with masonry façade, details of which would be subject to planning condition and approval of detailed design at a later date. 2024 Update Update on the consenting strategy, programme driver for submission and presentation of latest design proposals. Discussion around the masonry façade and suggestion of an alternative, dark grey / charcoal colour specification. Post-meeting, LB Camden expressed a preference for the red brick masonry façade.
Historic England	9 November 2022	Meeting (Teams and in-Person)	2022 Scheme A Historic England representative attended the pre-application meeting for the 2022 scheme. They were supportive of the scheme and raised no specific issues beyond suggesting further explorations for coordinating with comparable surrounding LU tiling designs.
Transport for London	22 April 2021 9 November 2022	Meeting (Teams and In-Person)	Pre-application engagement on design elements and rationale. 2021 Scheme

Consultee Name	Consultation Date	Method of Consultation	Summary of Consultation Outcome
			TfL supportive of the principle and general arrangement of the substations and other elements for approval. Comment on Cobourg Street paving load and waste accumulation behind screening. Noted that TfL is not the highway authority for roads adjacent to the application site.
Exmouth Arms	30 March 2021 16 November 2022	Meeting (Teams and In-Person)	Pre-application engagement on design rationale, elements and planning consents process. <u>2021 Scheme</u> Exmouth Arms supportive of proposals and welcomes integrated seating as potential additional customer spillover area. Queries raised on allocation of seating space and licencing, and position and design of temporary hoarding. <u>2022 Scheme</u> Exmouth Arms supportive of the 2022 UKPN Scheme, and consent approach. Suggested using glass sand (crushed from bottles) as part of brick materiality palette. Queries raised on temporary storage/table placement near Exmouth Arms/UKPN Substations boundary, security measures around the building, and temporary hoarding and water mains works.
UKPN	1 April 2021	Meeting (Teams)	Pre-application briefing on principles of Schedule 17 submission and submission scope. UKPN supportive of application scope, minor queries raised on external lighting and legal categorisations of UKPN substation. Noted that technical engagement has taken place with UKPN throughout the design process.
London Continental Railways / London Borough	10 May 2021	Meeting (Teams)	Pre-application engagement on application scope and design rationale London Continental Railways and London Borough of Camden (as owners of adjacent former Maria Fidelis Catholic School site) supportive of substation design principles.

Consultee Name	Consultation Date	Method of Consultation	Summary of Consultation Outcome
of Camden (as landowners of former Maria Fidelis Catholic School site)			Further information requested on extent of site in relation to HS2 development boundary and position of Maria Fidelis party wall.
Drummond Street Traders	20 May 2021	Meeting (Teams)	Pre-application engagement on design rationale, elements and planning consents process Drummond Street Traders are supportive of the proposals. A few queries were raised, surrounding Over Site Development, seating active frontage, integration with Exmouth Arms building, and site design.
Greater London Authority	N/A	N/A	GLA declined attendance to 2021 pre-application meetings, and 9 November 2022 pre-application engagement meeting

6 Construction Programme

6.1.1 A high-level programme for the works subject to this submission and how they fit into the overall programme for other works in the area is contained in **Table 9** below. The programme for works on site may vary from the indicative dates shown.

Table 9: Proposed Programme and Sequence of Works

Anticipated Start on Site Date (quarter/year)	Activity	Estimated Completion of Works (quarter/year)
Q3 2024	Site Mobilisation	Q2 2025
Q4 2024	Commencement of construction	Q2 2025

7 Other Consents

7.1 Other Consents

7.1.1 Other main consents likely to be required for the works are summarised in **Table 10** below. Consent requirements may alter during design development and further consents not identified in Table 10 may be required.

Table 10: Other consent requirements

Consent	Works Requiring Consent
HS2 Act, Schedule 17, Paragraph 3(2)(f)	Urban Realm Artificial lighting equipment for substation and its access areas, and public lighting
HS2 Act, Schedule 17, Paragraph 12	Site restoration for urban realm surrounding the UKPN substation site (to be submitted with wider HS2 Euston Station urban realm)