High Speed Rail (London – West Midlands) Act 2017

HS2 Ltd

London Borough of Hillingdon

Temporary Railway Siding (Work No. 1/66)

Schedule 17(9) Bringing into Use

Written Statement for Information

Consents Register Reference No. LBH.S232.BU.31

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1 Executive Summary

1.1.1 Section 20 to the High Speed Rail (London – West Midlands) Act 2017 ('the Act') grants deemed planning permission for the works authorised by it, subject to the conditions set out in Schedule 17. The Act provides powers for the construction and operation of Phase 1 of High Speed Two.

1.1.2 Schedule 1 to the Act sets out the 'Scheduled Works' the nominated undertaker is authorised to construct and maintain for Phase One of High Speed 2

1.1.3 The High Speed Rail (London-West Midlands) Act 2017 ('the Act') Schedule 1 Work No. 1/66 includes for a temporary railway siding and states:

A temporary railway siding (1.87 kilometres in length) commencing by a junction with the Marylebone to Aylesbury Line at a point 36 metres east of the bridge carrying that railway over Ickenham Stream passing in a north-westerly direction and terminating at a point 196 metres north east of the bridge carrying Harvil Road over that railway. Work No. 1/66 includes bridges over the River Pinn and Work No. 1/67[1];

1.1.4 The proposed temporary rail siding is different to that described in Work no. 1/66 with respect to its length, however it remains within the Limits of Deviation for the scheduled work and is in accordance with Schedule 1 1(1) and (2) of the Act. The SCS proposed temporary railway siding is shorter i.e., 1.057 kilometres in length not 1.87 kilometres as described in Schedule 1 of the Act.

1.1.5 Schedule 17 paragraph 9 requires that the nominated undertaker submit a bringing into use request for scheduled works. This requirement applies to all scheduled works, except to the extent that the work is underground, and any depots constructed for or in connection with the maintenance of railway vehicles or track

1.1.6 The grounds for approval set out in Schedule 17(9) paragraph 4 (a) are applicable to this bringing into use application for a temporary rail siding (Work no.1/66). Paragraph 4a provides that approval must be granted if there are no reasonably practicable measures needed for mitigating the effect of the work or its operation on the local environment or local amenity.

1.1.7 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] Work No. 1/67 relates to the regrading of Breakspear Road South which is not currently scheduled to be carried out as part of the HS2 works.

1.1.8 Mitigation for the proposed temporary railway siding is largely provided through the requirements set out in the CoCP. Whilst HS2 is not required to mitigate all impacts, the Schedule 17 process does need to consider whether there are any further reasonably practicable measures that can be used to mitigate the works.

1.1.9 Paragraph 20 of the Statutory Guidance states that planning authorities should not through the exercise of Schedule 17 seek to modify or replicate controls already in place such as the Environmental Minimum Requirements.

1.1.10 The site context is predominantly suburban / rural in character with a mixed land use pattern of residential properties (around Hoylake Crescent and The Greenway), road and rail links (Chiltern main line, West Ruislip Rail Station, B466 High Road, Ickenham Road and Breakspear Road South), open space (King George Playing fields and Ruislip Golf course) and farmland (Brackenbury Farm and Oak farm). Ruislip Golf Course is currently closed.

1.1.11 King George playing fields approximately 40m from the proposed development will remain accessible during HS2 construction and are largely obscured by the mature tree cover planted along the Chiltern main line boundary.

1.1.12 There are two medieval manorial moated sites identified near the proposed development i.e., Pynchester Farm (RUI001) and Brackenbury Farm (RUI002). These scheduled monuments are approximately 400m and 210m respectively away from the proposed temporary rail siding. Both sites are screened by mature vegetation and scattered trees. The proposed temporary rail siding has no impact or effect on the Scheduled monuments or their setting.

1.1.13 Hoylake Crescent and the Greenway residential dwellings are approximately 150m and 35m (closest receptor) respectively away from the proposed temporary rail siding.

1.1.14 The recreational receptors are located on the public rights of way known as the Celandine Route (U44 & U45), and the Hillingdon Trail (U81 & R146), U47 & U48.

1.1.15 The proposed railway siding will operate 24 hours a day, seven days a week and forms an essential part of the tunnel boring machine (TBM) logistics and support system supplying concrete tunnel lining segments and other consumables using rail mounted vehicles (locomotives), and the reduction of the number of road vehicle movements required for the HS2 project.

1.1.16 The temporary rail siding will be constructed at approximately the level of the existing Network Rail Chiltern Mainline from the connection to the Network Rail Network then follows the vertical alignment of the HS2 rail line, climbing towards the west to cross over the River Pinn.

1.1.17 The proposed temporary rail siding will be constructed from steel rails and timber, or concrete sleepers laid on a ballast bearing layer. The construction incorporates a pad between the rail and the baseplate which has the effect of reducing noise. In accordance with standard railway practice, one buffer stop equipped with a solar powered red warning light at the end of each section of track.

1.1.18 The overall design intent is to provide a temporary rail siding that enables the delivery of concrete tunnel segments (and other construction consumables) during the HS2 construction works whilst ensuring that the effects / impacts to the environment and local amenity are mitigated as far as is reasonably practicable.

1.1.19 Construction of the rail siding will take place in two phases. The first phase due to become operational in December 2022 comprises the track from the connection with the Network Rail network (west of High Road B466) terminating at the east side of the River Pinn. The second phase is due to become operational in August 2023, comprises an extension from the phase 1 termination point at the east side of the River Pinn, over the River Pinn an terminating at the Breakspear Road South bridge. Both phases are for approval in this approval request. The full extent of the scheduled work for approval is shown in Appendix 1 Engineering layout general arrangement drawing.

1.1.20 HS2 Ltd has entered into a Connection Agreement with Network Rail to operate the siding and connect to the Network Rail infrastructure. The proposed rail siding is also the subject of a Network Change which has now been established by Network Rail.

1.1.21 The section of track alongside the HS2 West Ruislip site is a very busy part of the rail network. Network Rail requirements mean that freight trains must work around, or in between the passenger services which take priority, as such there is not enough capacity to fit this operation into the busy Network Rail timetable.

1.1.22 Rail deliveries are therefore scheduled to avoid peak commuter train services, as such the segment loaded freight / segment train will leave the Isle of Grain (Thamesport in Kent) at approximately 19:30hrs, arrive at West Ruislip at approximately midnight (00:00hrs) and depart West Ruislip just before the morning period when the passenger services become more frequent and remove available capacity on the rail network.

1.1.23 From the east to west, the rail siding has been designed to remain at the same level as the adjoining existing Chiltern mainline in order to mitigate the visual effect on the residents along the Greenway. There is mature vegetation (coniferous and deciduous trees and shrubs) on the boundary between the Chiltern main line and the Greenway rear gardens providing visual full screening from the proposed operation of the rail siding. Views from Hoylake Crescent to the proposed scheme are largely obscured by the mature tree cover planted behind the properties. Appendix 2 and 3 provide illustrative views from the Greenway and Hoylake Crescent.

1.1.24 The Celandine route, U45 and U47 (part of) and the Hillingdon Trail (between Clacks Lane and The Greenway) will be subject to diversions to the north of proposed temporary development. Post HS2 construction, these footpaths will be reinstated.

1.1.25 A Section 61 approval request (Application reference:1MC04-SCJ-EV-APP-SS05_SL07-000156 Rev C01) covering the period from 01 November 2022 and 30 April 2023 (inclusive) that is specific to the rail sidings is to be submitted to London Borough of Hillingdon in October 2022. The works to be covered by this Section 61 include operation of the rail sidings serving the Segment Yard, between the River Pinn Underbridge and the West Ruislip Station (Phase 1). This Section 61 covers train operation within the Segment Yard, operation of the trains outside of SCS's site is the subject of a Connection Agreement with Network Rail to operate the siding and connect to the Network Rail infrastructure and a falls under Section 122 of the Railways Act 1993.

1.1.26 The noise and vibration mitigation measures (not all relating to Schedule 17) include a noise bund between the works and receptors, shutting down the locomotive engine when stationery, noise and vibration monitoring, rail lubricators and resilient pads incorporated in the siding design.

1.1.27 The noise impact from the gantry crane operation (loading and unloading) is generally low and does not contribute significantly to the overall noise levels during daytime, evening and night-time periods, with the highest predicted noise level being 37dB LAeq,1h at locations on the Greenway (for comparison the night-time trigger for significant effects is 55dB LAeq,1h). No vibration is expected to be perceived at receptors surrounding the sidings due to the slow speed movement along the rail siding and the distance of the nearest receptors.

1.1.28 There are no impacts relating to light and on the free flow of traffic.

1.1.29 Please note that the proposed temporary railway siding is to be constructed entirely within existing HS2 Construction compounds namely West Ruislip and Breakspear Road South worksites where civil engineering works such as earthworks, bridge erection, tunnel portal and ramp construction are ongoing therefore all practicable mitigation measures relating to flood risk, nature conservation and historic interest (archaeology) have been applied and ongoing. No further vegetation clearance is proposed. It is concluded that the proposed temporary railway siding has no impacts or effects on archaeology and ecology

1.1.30 The impacts on the habitats will be mitigated post-construction by reinstatement and enhancement of the habitats within the surrounding area. E.g. The post-construction golf course design mitigates and enhances the area to maximise the conservation status of the Great Crested Newt population

1.1.31 In due course a Schedule 17(12) 'Site Restoration' submission will be made to London Borough of Hillingdon which will propose a scheme for the permanent landscaping

following demobilisation of the worksites and removal of the proposed temporary railway siding.

1.1.32 The proposed railway siding (western extent) sits on temporary and permanent embankment. Parts of these temporary and permanent embankments are located within Flood Zone 2/3. A Schedule 33 Part 5 protective provisions application has been submitted and approved to the Environment Agency (Consent ID: SCS-000-0179 and SCS-000-0182) for the construction of both the permanent and temporary embankments which are located within Flood Zone 2/3.

1.1.33 With reference to Scheduled work 1/66, SCS has developed a temporary rail siding which incorporates practical mitigation measures most of which are already imposed through the Code of Construction Practice (CoCP).

1.1.34 SCS have proactively engaged with London Borough of Hillingdon through pre-application discussions on proposals and have discussed the mitigation measures that are appropriate and reasonable for bringing this scheduled work (1/66) into use. It is considered that no further reasonably practicable mitigation measures are required and therefore SCS seek approval from London Borough of Hillingdon under Schedule 17(9)(4) of the Act.

1.1.35 The table below summarises the effect of the proposed temporary rail sidings (including its operation) and provides the proposed mitigation measures.

Table 1: Impacts and Mitigation Measures

Schedule 17 (9) 4a	Category	Impact Area	Notes / Additional mitigation measures
Local Environment	Visual	The Greenway residents	• ES identified a major adverse effect from tunnelling support activities. • SCS has designed (via a dispensation) the siding to remain at the same level as the Chiltern main line to mitigate the visual effect • The Greenway is almost entirely at a lower level than the Chiltern therefore the coniferous and deciduous trees and shrubs on the boundary between the Chiltern main line and said Greenway rear gardens provide full screening from the proposed operation of the rail siding.
		Hoylake Crescent residents	• Views to the proposed scheme are largely obscured by the mature tree cover planted behind the properties
	Noise	Greenway & Hoylake Crescent residents	• The operation of the siding is subject to a Section 61 Control of Pollution Act approval • The noise predictions do not contribute significantly to the overall noise levels. No vibrations are expected to be perceived by receptors. • Noise mitigation measures include a noise bund and noise attenuation timber hoarding between the works and receptors, shutting down the locomotive engine when stationery, noise and vibration monitoring, rail lubricators and resilient pads incorporated in the siding design.
	Light	Greenway & Hoylake Crescent residents	• A buffer stop equipped with red-light warning system for the train driver will be installed at the end of track. The red light will be directed towards the track in order to prevent disturbance to residential areas.
	Road Traffic	No Impact	• Use of the proposed railway siding is key to reducing impacts on road uses as it significantly reduces lorry movements on the public highway • The requirement for abnormal road vehicle deliveries will be minimised by assembling the track components on site rather than off-site.
	Ecology	Full extent of the siding	• Vegetation clearance was carried out in 2018 and no protected or notable species were recorded during vegetation clearance. • Bats will be managed using appropriate licence • limited UV elements / wavelengths of light (lower than 550nm) and directional lighting and baffles / cowls could be used for light spill reduction on the bat roost, if required. • Current operations have not negatively impacted the bats. Continuous review of noise levels will ensure low frequencies are emitted to reduce impact on the bats. Bat foraging not impacted. • Losses attributed to the creation of the worksites will be mitigated post-construction by reinstatement and enhancement of the habitats within the surrounding area. E.g. The post-construction golf course design mitigates and enhances the area to maximise the conservation status of the Great Crested Newt population • Post-construction, the impacts on the habitats will be mitigated by reinstatement and enhancement of the habitats within the surrounding area – this will be the subject of a future Schedule 17 Site Restoration agreement.

Schedule 17 (9) 4a	Category	Impact Area	Notes / Additional mitigation measures
	Cultural Heritage	Brackenbury Farm Moated Site and Grade II Farmhouse	• Approximately 210m west of proposed siding. • Views from the medieval site are screened by mature vegetation, boundary hedgerows, scattered trees and roadside vegetation. The proposed rail siding has no impacts or effects on the Scheduled Monument / listed building or the setting.
		Pynchester Farm Moated Site	• Approximately 400m south-west of proposed rail siding • Views from the medieval site are screened by mature vegetation and scattered trees. The proposed rail siding has no impacts or effects on the Scheduled monument or its setting.
		Archaeology	• Based on the negative results of the Archaeological Evaluation and the existing disturbance, it was agreed with GLAAS that no further works are required in this area. • The proposed temporary railway siding has no impacts or effects on archaeology.
	Flood Risk	Flood Zone 2/3	• A Schedule 33 Part 5 protective provisions application has been submitted and approved to the Environment Agency (Consent ID: SCS-000-0179 and SCS-000-0182) for the construction of both the permanent and temporary embankments which are located within Flood Zone 2/3. The proposed rail siding sits on the said embankments.
Local Amenity	Public Rights of Way Users	Hillingdon Trail (U81&R146) Celandine Route (U45&46)	• The ES assessed that the impact relating to the temporary re-routing of the Celandine Route (U45 and U46) and the Hillingdon Trail (U81 & R146) will not have a significant effect on the users. • In accordance with CoCP Section 5, public rights of way have been maintained by re-routing around the perimeter of the worksite. Part of U47 will remain in use throughout. • Construction of the rail siding will not impact on public rights of way or any areas to which the public currently has access.
	King George Playing Fields		• King George playing fields will remain accessible during HS2 construction. The PRoW U47 crosses the playing fields in a west to east and west to south-east direction. • Views from the playing fields to the proposed scheme are largely obscured by existing mature tree cover along the Chiltern main line boundary.

2 Introduction

Background information

Table 2: 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: Skanska Costain Strabag Joint Venture 3 Ickenham Rd Ruislip HA4 7DQ
Site Address	The works are located north of the existing Chiltern main line from a point approximately 70m west of B466 High Road railway overbridge, terminating at the Breakspear Road railway overbridge. **From X (Easting): 508293, Y (Northing): 186865 to X (Easting): 507246, Y (Northing): 187197**
Description	Application under Schedule 17 (9) to the High Speed Rail (London – West Midlands) Act 2017 for Bringing into Use for Schedule 1 Work No. 1/66 for a temporary railway siding: *A temporary railway siding (1.057 kilometres in length) covering an area of 0.75 hectares commencing at a point approximately 70m west of the bridge carrying B466 High Road over the Chiltern main line (Marylebone to Aylesbury Line), terminating on the bridge carrying Breakspear Road over the Chiltern main line including, a bridge over the River Pinn.*

Terms of Reference

2.1.1 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').

2.1.2 This statement provides London Borough of Hillingdon with information to assist with the determination of the Bringing into Use submission under Schedule 17, in relation to the above description of works.

2.1.3 The information in this Written Statement is provided for information to assist in determining the bringing into use of the Schedule 1 Work No. 1/66. It is not for approval.

Introduction to High Speed 2

2.1.4 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.

2.1.5 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.

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

High Speed Rail (London – West Midlands) Act 2017

2.1.7 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 Bringing into use submission.

2.1.8 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.

2.1.9 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.

2.1.10 Schedule 1 to the High Speed Rail (London – West Midlands) Act 2017 sets out the 'Scheduled Works' the nominated undertaker is authorised to construct and maintain for Phase One of High Speed 2

2.1.11 Schedule 17 paragraph 9 requires that the nominated undertaker submit a bringing into use request for scheduled works. This requirement applies to all scheduled works, except to the extent that the work is underground and any depots constructed for or in connection with the maintenance of railway vehicles or track

2.1.12 Schedule 17 (9) of the Act sets out the grounds on which the LPA may approve, impose conditions on approvals, or refuse requests for approval.

2.1.13 (4) The relevant planning authority must grant approval for the purposes of this paragraph if:

> *(a) it considers that there are no reasonably practicable measures which need to be taken for the purpose of mitigating the effect of the work or its operation on the local environment or local amenity, or*
> *(b) it has approved, at the request of the nominated undertaker, a scheme consisting of provision with respect to the taking of measures for that purpose.*

2.1.14 The works to which this application relates, and the cumulative impact of the works in conjunction with the 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[2].

HS2 Code of Construction Practice

2.1.15 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).

2.1.16 The works subject to this request for approval of Bringing into use will be undertaken in accordance with the Code of Construction Practice, and with the Class Approval issued by the Secretary of State (March 2017)[3].

2.1.17 The Schedule 17 Statutory Guidance issued by the Secretary of State (May 2021)[4] provides guidance to all planning authorities determining requests for approval under Schedule 17 to the Act. Paragraph 20 of the Statutory Guidance states that planning authorities should not through the exercise of Schedule 17 seek to modify or replicate controls already in place such as the Environmental Minimum Requirements.

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

[4] 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#imposition-of-conditions

Structure of Written Statement

2.1.18 This Written Statement is structured as follows:

- **Section 3** summarises the Schedule Work authorised by the Act to which the submission relates and describes the location and characteristics of the area in which the works will be carried out.
- Details of the work including the design approach and rationale, construction and operation stage are described in **Section 4 - 6;**
- **Section 7** outlines the operational use
- **Section 8** outlines impacts and mitigation measures.
- Pre-submission meetings that were undertaken, including dates, attendees at meetings and a brief summary of these discussions are summarised in **Section 9;**
- 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 10**; and
- **Section 11** identifies any other main consents, or known forthcoming consents associated with the works.

3 Background Information

High Speed Rail (London-West Midlands) Act 2017

3.1.1 The temporary West Ruislip Railhead shown in **Figure 1** comprises a rail siding, a tunnel segment yard, 2no. gantry cranes and associated haul roads. The element that is the subject of this Schedule 17 Bringing into Use application is the proposed temporary rail siding. The segment storage yard, gantry cranes and associated haul roads are temporary works that do not Schedule 17 approval, with some associated works also covered by the class approval for matters ancillary to development under Schedule 17.

Figure 1: West Ruislip Railhead

3.1.2 The High Speed Rail (London-West Midlands) Act 2017 ('the Act') Schedule 1 Work No. 1/66 includes for a temporary railway siding and states:

> *A temporary railway siding (1.87 kilometres in length) commencing by a junction with the Marylebone to Aylesbury Line at a point 36 metres east of the bridge carrying that railway over Ickenham Stream passing in a north-westerly direction and terminating at a point 196 metres north east of the bridge carrying Harvil Road over that railway. Work No. 1/66 includes bridges over the River Pinn and Work No. 1/67 ;*

3.1.3 Work No. 1/67 relates to the regrading of Breakspear Road South which is not currently scheduled to be carried out as part of the HS2 works.

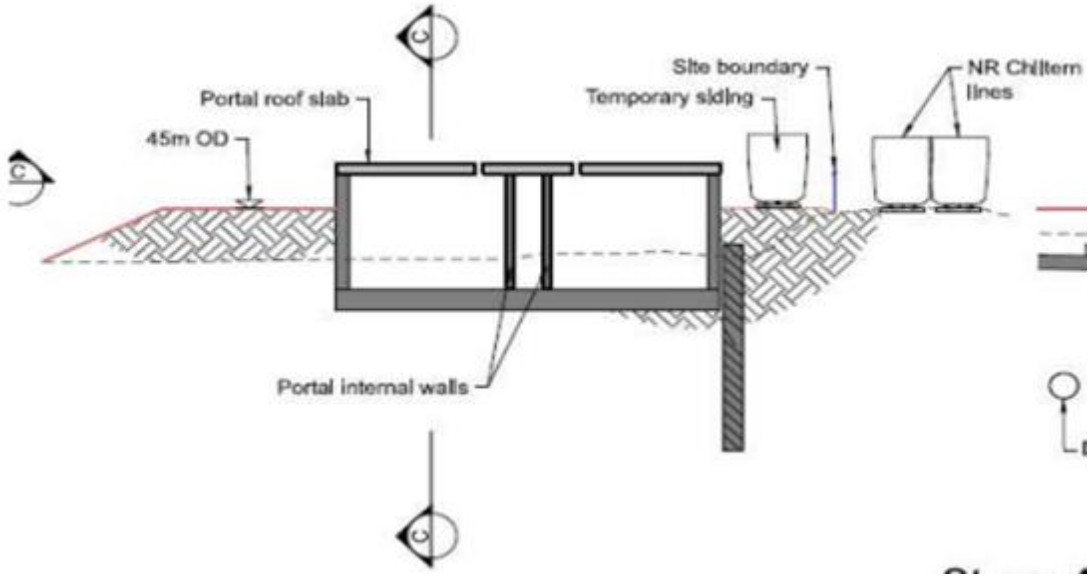
3.1.4 The proposed temporary rail siding (Figure 1: shown in orange) is different to that described in Work no. 1/66 with respect to its length. It (proposed rail siding) however remains within the Limits of Deviation for the scheduled work and is in accordance with Schedule 1 1(1) and (2) of the Act

3.1.5 With respect to the change in length, the temporary rail siding was originally designed for soil disposal offsite. The operation required an extensive railhead (similar to the Willesden Euro terminal) which was to be located to the west of Breakspear Road South. An alternative has been developed which enables spoil to be reused on site negating the need for dispatching spoil by train and thus drastically reducing the size of the railhead as it is now required to mainly cater for the delivery of the concrete tunnel lining segments and construction consumables.

3.1.6 The alignment of the siding is dictated by the location of the railhead which is located to the east of River Pinn, close to the tunnelling activities located at the West Ruislip Portal.

3.1.7 The alignment of the proposed siding is also influenced by the existing connection point to the existing rail network, existing Chiltern main line, tunnel portal structure (Schedule 17 approval reference 75317/APP/2019/4141) and segment storage yard. The proposed temporary rail siding is sandwiched between the southern wall of the portal structure and the temporary hoarding separating the construction site from the Network Rail Chiltern Line **(Figure 2).** West of the tunnel portal structure the proposed rail siding alignment swings north onto the permanent HS2 track alignment and runs parallel with the segment storage yard.

Figure 2:Section illustrating siding alignment between West Ruislip Portal and the site boundary.



3.1.8 The SCS proposed temporary railway siding is shorter i.e., 1.057 kilometres in length not 1.87 kilometres as described in Schedule 1 of the Act. **Figures 3 – 5** below show the diverged alignment with the proposed SCS alignment in green and Work no. 1/66 in blue.

Figure 3: Extract of Consolidated plans and sections Sheet no. 1-34 (starting point)

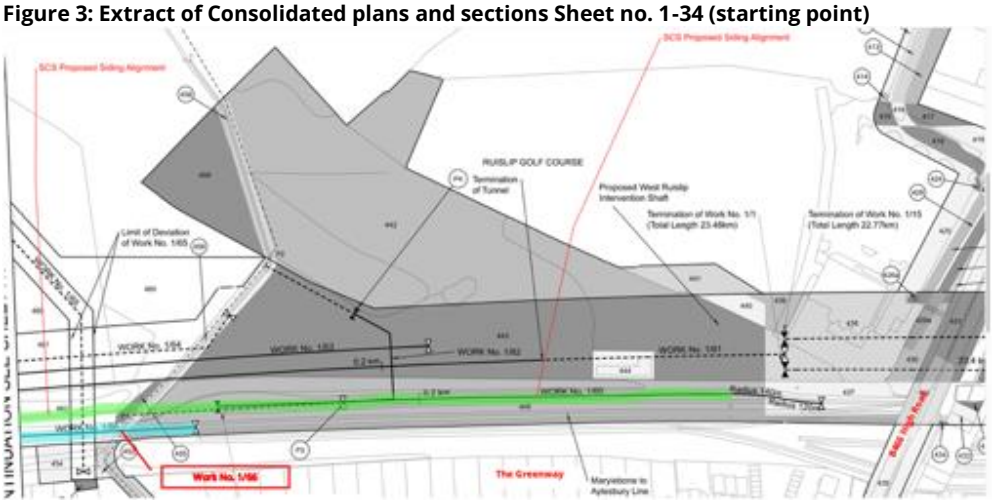


Figure 4:Extract of Consolidated Plans and Sections Sheet no. 1-35 (Ruislip Golf Course & River Pinn area)

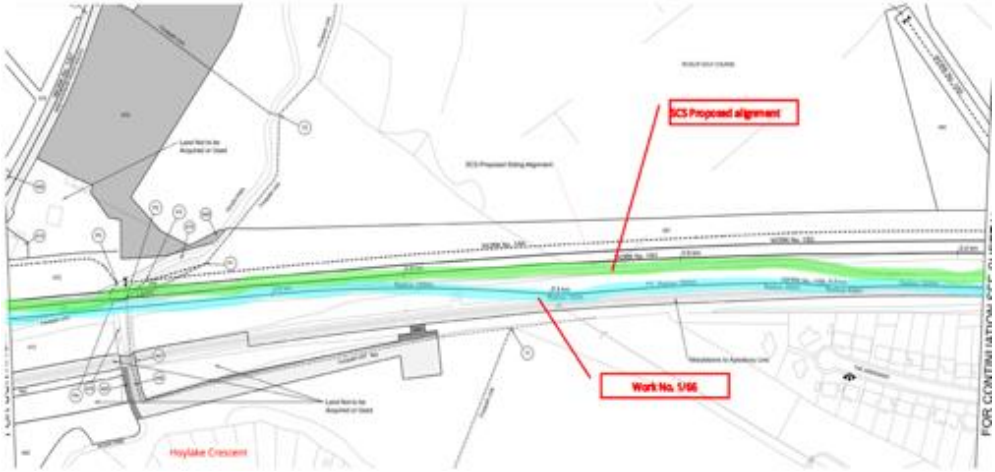
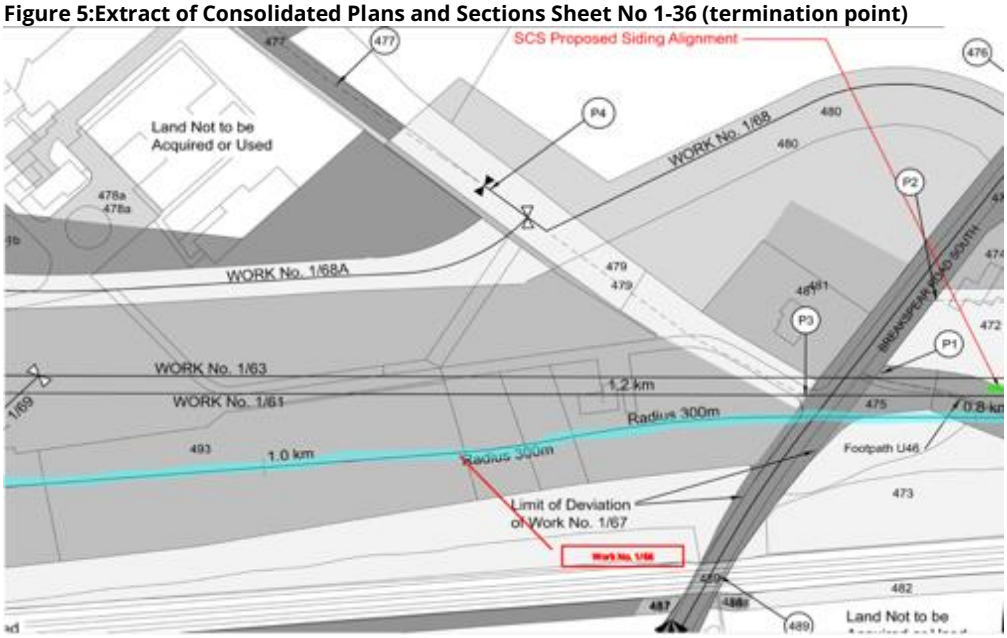


Figure 5:Extract of Consolidated Plans and Sections Sheet No 1-36 (termination point)



3.1.9 This approval request is submitted pursuant of Schedule 17 (9). London Borough of Hillingdon is the relevant qualifying authority for the purposes of the Act.

3.1.10 The temporary railway siding which is the subject of this approval request forms an above ground Scheduled Work (1/66).

3.1.11 **Approval** of plans and specifications is **not required** for temporary works (Schedule 17, paragraph 2 (8)). Therefore, the design of the rail siding is not subject to approval, but this bringing into use request is considering that all reasonably practicable mitigation measures are in place to allow the operation of the rail siding.

3.1.12 The grounds for approval set out in Schedule 17(9) paragraph 4 (a) are applicable to this bringing into use application for a scheduled temporary railway siding (Work no.1/66). Paragraph 4a provides that approval must be granted if there are no reasonably practicable measures needed for mitigating the effect of the work or its operation on the **local environment** or **local amenity**.

Site Location and Characteristics

3.1.13 In the wider context, this section of the HS2 permanent scheme i.e., South Ruislip to Ickenham comprises approximately 9km in length, the majority of which will be via the twin bored Northolt tunnel (including portal structures) along an alignment approximately parallel with the Chiltern Main Line and the London Underground Central Line. There are approved vent shaft headhouses at South Ruislip (Braintree Road) [5] and West Ruislip Portal[6] (west of Ickenham Road), and Schedule 17 approved permanent bridges over River Pinn, Breakspear Road South[7] and a realigned Harvil Road[8].

3.1.14 **Figures 6** below shows the indicative location of the proposed development (temporary rail siding) within the local context (existing).

Figure 6: Overview of proposed temporary siding within local context

[5] Approval Reference: 7215/APP/2020/2901
[6] Approval Reference: 75317/APP/2019/4141
[7] Approval reference: 76293/APP/2021/1158
[8] Approval Reference: 76459/APP/2021/2049

3.1.15 The proposed temporary railway siding sits within London Borough of Hillingdon. London Borough of Hillingdon is therefore the approving authority.

3.1.16 The proposed temporary railway siding (the site) is to be located north of the existing Chiltern main line from a point approximately 70m west of B466 High Road Chiltern main line railway overbridge, terminating at the Breakspear Road Chiltern main line railway overbridge.

3.1.17 The area is predominantly suburban / rural in character with a mixed land use pattern of residential properties (around Hoylake Crescent and The Greenway), road and rail links (Chiltern main line, West Ruislip Rail Station, B466 High Road, Ickenham Road and Breakspear Road South), open space (Kind George Playing fields and Ruislip Golf course) and farmland (Brackenbury Farm and Oak farm).

3.1.18 Ruislip Golf Course is currently closed.

3.1.19 King George playing fields are located south of the Chiltern Mainline and approximately 40m from the proposed development. The PRoW U47 crosses the fields in a west to east and west to south-east direction.

3.1.20 The River Pinn flows in a north to south direction crossing the proposed HS2 rail and Chiltern main line east of Breakspear Road South.

3.1.21 There are two medieval manorial moated sites identified near the proposed development i.e., Pynchester Farm (RUI001) and Brackenbury Farm (RUI002). These scheduled monuments are approximately 400m and 210m respectively away from the proposed temporary rail siding.

3.1.22 Hoylake Crescent and the Greenway residential dwellings are approximately 150m and 35m (closest receptor) respectively away from the proposed temporary development.

3.1.23 Oak Farm is vacant and is not considered as a residential receptor for the delivery phase of the HS2 works.

3.1.24 The Hillingdon Trail (footpath U81 and R146) traverses the Ruislip Golf Course and is adjacent to the Ickenham Stream, which was originally constructed as a feeder for the Grand Union Canal and is also referred to as the 'canal feeder'. The Celandine Route (Footpath U44 and U45) runs along the east of the River Pinn and the western boundary of Ruislip Golf Course.

3.1.25 The Celandine route will be subject to temporary and permanent diversions between the River Pinn and Breakspear Road South to the north of proposed temporary development.

3.1.26 Footpath U47 starts north of the Chiltern main line, runs alongside the River Pinn extending southwards and under the Chiltern main line, continuing in an easterly direction south and alongside the Chiltern main line. Part of the U47 extending under the Chiltern main line is temporarily diverted however the remaining section south of the Chiltern mainline remains open to the public.

3.1.27 For more information on the public rights of way (PROW's) refer to **Figure 21**

3.1.28 A 2.4m high solid timber hoarding currently exists between the Chiltern Line and the HS2 Construction Compound (West Ruislip Portal) from the Network Rail network connection point to approximate chainage 24+300 where it changes to a mesh fencing. Please refer to the hoarding alignment drawing contained in Appendix 4.

4 Description of the Works

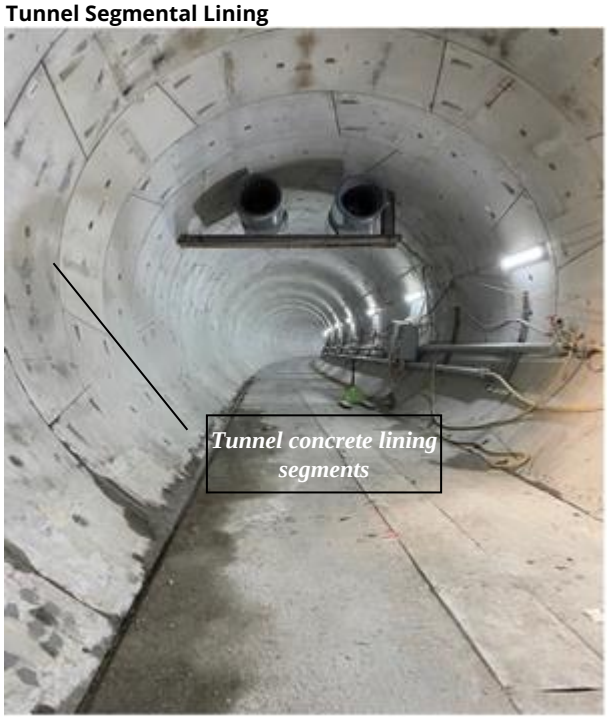
Background / Overview

4.1.1 The proposed rail siding forms an essential part of the tunnel boring machine (TBM) logistics and support system supplying concrete tunnel lining segments and other consumables using rail mounted vehicles (locomotives), and the reduction of the number of road vehicle movements required for the HS2 project.

4.1.2 A TBM is a machine used to excavate tunnels with a circular cross section through a variety of soil and rock strata.

4.1.3 The concrete tunnel lining segments are a key component of the TBM operations as they provide permanent support to the tunnel by providing segmental lining.

Figure 7: Tunnel Segmental Lining

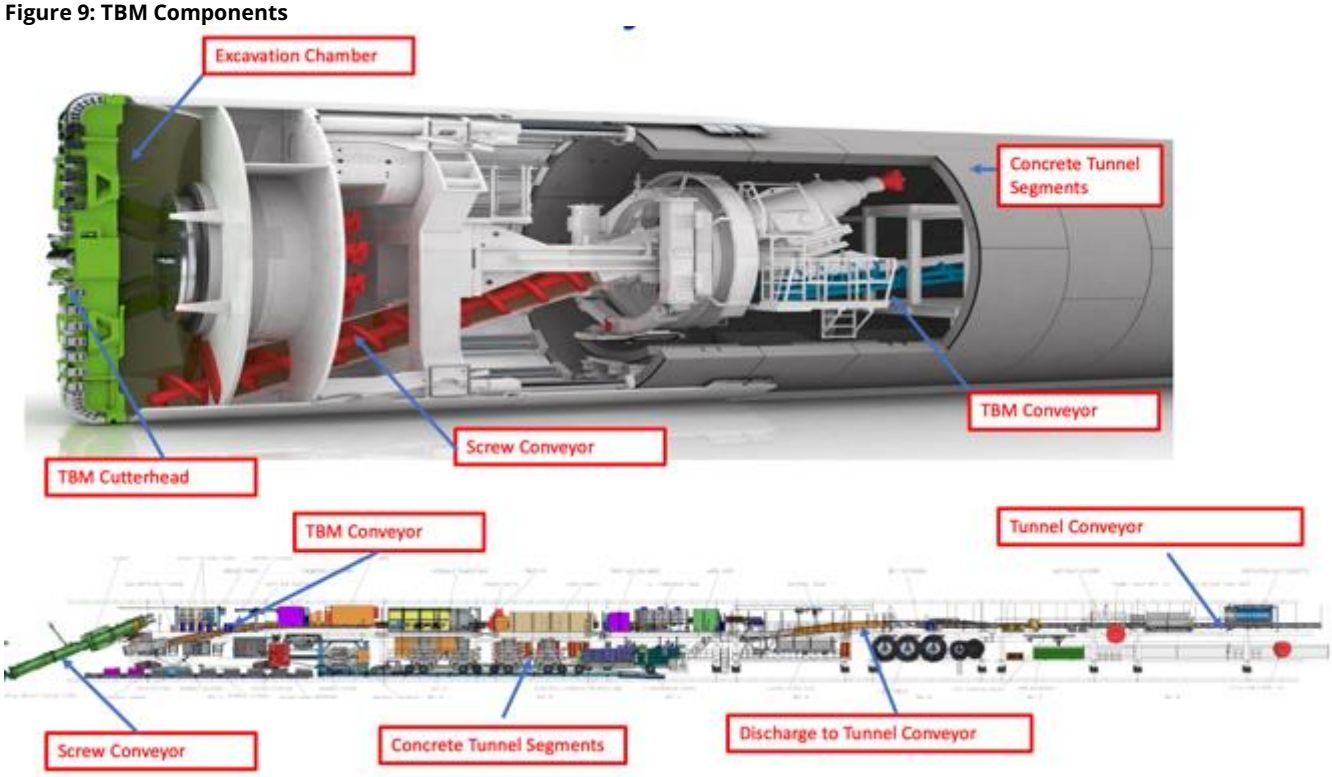


4.1.4 The concrete segments will be produced in the Isle of Grain and transported to site by a freight train via the Network Rail network. The proposed temporary rail siding will be connected to the Network Rail network to allow trains to pass from the Network Rail network to the siding and vice versa. This connection will facilitate railway access and delivery of the tunnel lining segments directly to the HS2 Construction Compounds (West Ruislip Portal and Breakspear Road South worksites). The segments are stored at the segment yard and unloaded using a gantry crane into segment yard for storage. See **Figure 8** below.

Figure 8: Gantry crane and segment yard illustrated (Dublin Port Tunnel)

4.1.5 The gantry crane is also used to load the segments onto Multi Service Vehicles which will be used to deliver the segments to the TBM via internal haul roads through the Tunnel Portal. As the TBM cutterhead excavates the concrete segments are used to line the tunnel in order to provide permanent support.

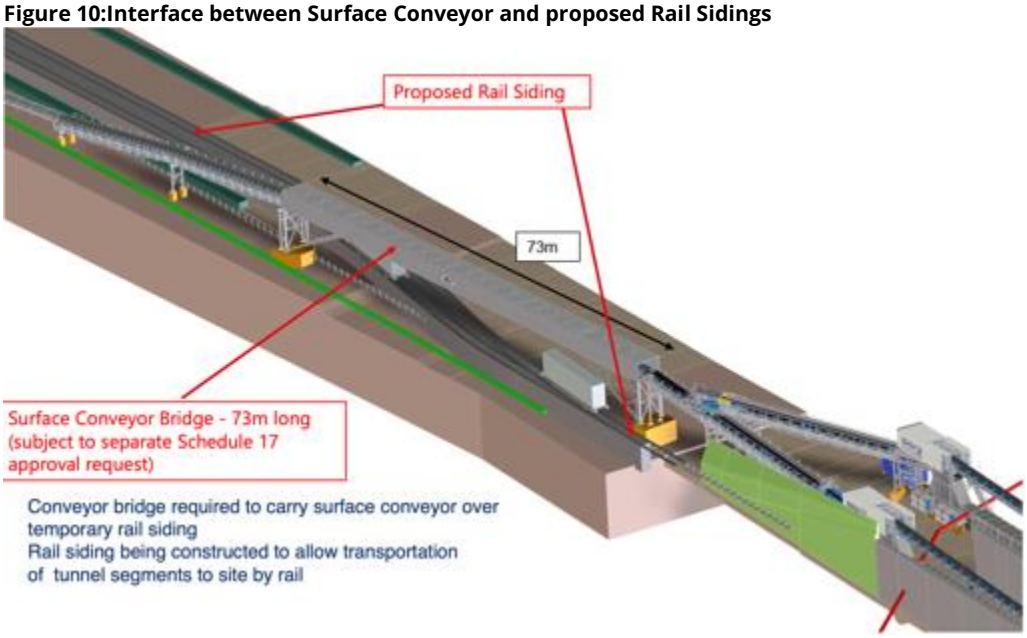
Figure 9: TBM Components



4.1.6 **Figure 9** above shows the components of the TBM. The tunnel spoil is carried from the excavation chamber to the screw conveyor to the TBM conveyor and onto a surface conveyor

that carries the spoil to a treatment plant and Copthall Tunnel for further use within the HS2 project. A surface conveyor (subject of separate Schedule 17 bringing into use application) crosses the rail siding via a bridge (See Figure 10 below) to the north of The Greenway.

Figure 10:Interface between Surface Conveyor and proposed Rail Sidings



Proposed Temporary Railway Siding

4.1.7 The proposed temporary rail siding will extend from a connection with the Network Rail network just to the west of West Ruislip station to Breakspear Road South bridge. The rail siding is approximately 1,057 metres long and is a mix of single and double track. Appendix 1 contains an engineering layout general arrangement drawing reference 1MC04-SCJ_TRA-RT-DDE-SS05_SL07-900001 C01.

4.1.8 The temporary rail siding will be constructed at approximately the level of the existing Network Rail Chiltern Mainline from the connection to the Network Rail Network (chainage 23+520) to approximately chainage 24+000 (for chainage please refer to engineering layout general arrangement drawing contained in Appendix 1). From this point the temporary rail siding follows the vertical alignment of the HS2 rail line, climbing towards the west to cross over the River Pinn.

4.1.9 The permanent West Ruislip Retained Embankment will be widened to the south (ie towards the Network Rail Chiltern Line) by the construction of a temporary embankment which will carry the rail siding. At the end of the construction phase of the project the temporary embankment structure will be removed, and the permanent embankment made good.

4.1.10 The proposed temporary rail siding will be constructed from steel rails and timber, or concrete sleepers laid on a ballast bearing layer. The construction incorporates a pad between the rail and the baseplate which has the effect of reducing noise.

4.1.11 A turnout **(See Figure 12**) is a layout that allows tracks to be combined in to one track with the purpose of enabling the train locomotive to move from one track to the other. Two turnouts are proposed to connect the double track sections to single track sections. For location of the turnouts please refer to Appendix 1.

4.1.12 A buffer stop is a safety feature that marks the end of a section of track and incorporates a red-light warning system for the train driver **(See Figure 11).** In accordance with standard railway practice, one buffer stop equipped with a solar powered red warning light at the end of each section of track. Please refer to Appendix 1 for the location of the buffer stops described in sections 4.1.14 and 4.1.15 below.

4.1.13 The buffer stop is approximately 1.5metres in height above rail level. The buffer stop light, battery and solar panel will be mounted above the buffer stop i.e., an additional 0.5m. The stop light contains a 5-watt LED. See similar buffer stop as installed at the HS2 Willesden Euroterminal Worksite in Figure 11 below.

Figure 11:Buffer Stop at Willesden Euroterminal

4.1.14 For Phase 1, 2no. buffer stops (with red light warning systems) will be installed at chainage 24+374 north of the Chiltern mail line. PROW U47 and Hoylake Crescent lie to the south of this point approximately 60m and 140m away.

4.1.15 For Phase 2, 1no. buffer stop will be installed at the termination point north of the Chiltern line, east of Breakspear Road South (approximately 75m) and Hoylake Crescent (approximately 160m away)

4.1.16 Details relating to the phased operation of the siding are provided in sections 6 and 7.

Figure 12:Examples of a turnout

5 Design

5.1.1 The overall design intent is to provide a temporary rail siding that enables the delivery of concrete tunnel segments (and other construction consumables) during the HS2 construction works whilst ensuring that the effects / impacts to the environment and local amenity are mitigated as far as is reasonably practicable.

5.1.2 The design of the rail siding is subject to the following constraints:

- HS2 Limits of Deviation for the proposed rail siding which is a scheduled work under The Act.
- The rail siding must integrate with the existing Network Rail network at the west end of West Ruislip station, Chiltern mail line and with HS2 permanent structures i.e West Ruislip Portal, River Pinn Underbridge and Breakspear Road Underbridge which are all approved under Schedule 17.
- The rail siding must integrate with the following temporary works:
  - Temporary hoarding (solid timber and mesh fencing) in accordance with Network Rail specifications protecting the Network Rail Chiltern main line
  - Segment storage yard
  - Gantry cranes
  - A surface conveyor which is the subject of a separate Schedule 17 bringing into use approval request.

6 Construction

6.1.1 Construction of the rail siding will take place in two phases. The first phase comprises the track from the connection with the Network Rail network (west of High Road B466) terminating at the east side of the River Pinn (c 24+374). The second phase comprises an extension from the phase 1 termination point to Breakspear Road South bridge which is the full extent of this approval request.

6.1.2 Construction of the proposed temporary rail siding starting at the connection point to the Network Rail network (west of B466 High Road) has commenced.

6.1.3 There will be no vegetation clearance required for the construction of the proposed rail siding as it will be located within established HS2 Compounds and will be laid on embankments, structures and sub-base constructed in support of the HS2 project.

6.1.4 Construction of the rail siding will use existing welfare facilities, site lighting, security, haul roads and laydown areas within the existing Breakspear Road and West Ruislip portal construction compounds.

6.1.5 The construction sequence is as follows:

- Spread ballast bearing layer,
- Lay and space concrete/timber sleepers,
- Position steel rails on the sleepers, fasten the rails to the sleepers and fit fishplates to join the rails,
- Spread top ballast and lift and align track to design alignment.

6.1.6 A construction programme is included in Section 11.

6.1.7 Once the rail siding is constructed it will provide access for trains to the West Ruislip rail head. Upon completion of the tunnelling works and demobilisation of the HS2 construction compounds, the rail sidings will be handed over to Rail Systems. Rail systems will use the siding to deliver construction materials to support the following activities: laying track, installing signalling equipment and the provision of overhead line equipment. The siding will be removed upon completion of the HS2 project.

6.1.8 Once the construction compounds are demobilised (including removal of the sidings) the land will be the subject of Schedule 17 site restoration agreement.

7 Operational Use

Temporary Railway Siding use and timings

7.1.1 HS2 Ltd has entered into a Connection Agreement with Network Rail to operate the siding and connect to the Network Rail infrastructure. The proposed rail siding is also the subject of a Network Change which has now been established by Network Rail. Two Segment Trains (also referred to as freight trains) will be in continuous use to deliver segments to the segment yard.

7.1.2 During the first phase (Phase 1), a single track is constructed that stops to the east of River Pinn pending construction of the River Pinn Bridge. Train shunting will be required at West Ruislip station that will allow the freight carriages to be pushed into the West Ruislip works site. Once the tunnel segments are unloaded the freight can leave the work site and re-join the rail network without further manoeuvres required at West Ruislip station. See Figure 13 below:

Figure 13: Rail Siding Phase 1

7.1.3 During the second phase (Phase 2), the rail siding is constructed / extended across the newly constructed River Pinn Bridge. Parallel tracking is added with the West Ruislip work site negating the need for train shunting at West Ruislip station. Train shunting will therefore occur only within the West Ruislip work site. See Figure 14 below:

Figure 14: Rail Siding Phase 2

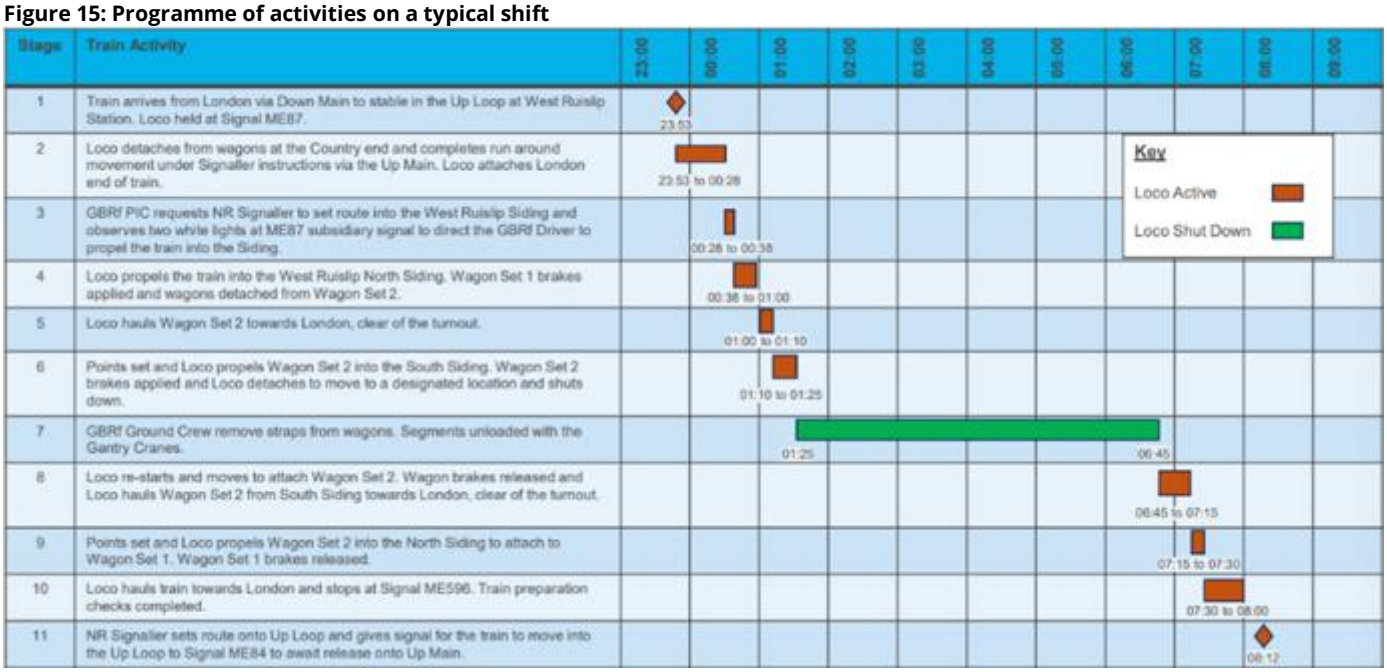
7.1.4 Operation of Phase 1 is due to commence in December 2022. Phase 2 will not commence until the completion of the permanent River Pinn underbridge which will carry the HS2 railway over River Pinn. This expected to complete approximately August 2023

7.1.5 The section of track alongside the HS2 West Ruislip site is a very busy part of the Rail Network (NR). SCS must fit the freight train between passenger trains on one of the busiest routes into London. Network Rail requirements mean that freight trains must work around, or in between the passenger services which take priority, as such there is not enough capacity to fit this operation into the busy Network Rail timetable. There is therefore, no option to run the freight train during the day without causing disruption to the passenger timetable. Far fewer passenger trains are moving during the night and therefore more lines are available for freight transport.

1.1.1 The Rail deliveries are therefore scheduled to avoid peak commuter train services, as such the segment loaded freight train will leave the Isle of Grain (Thamesport in Kent) at approximately 19:30hrs, arrive at West Ruislip at approximately midnight (00:00hrs) and depart West Ruislip just before the morning rush hour when the passenger services become extremely busy.

7.1.6 A diagram showing the anticipated programme of operation when deliveries occur is shown in Figure 15 with an indication of the times when the locomotive is active and shut down.

Figure 15: Programme of activities on a typical shift



7.1.7 The HS2 Tunnelling programme requires an average delivery of four trains per week (Typically Monday – Friday). Additional deliveries will be required during peak production periods.

7.1.8 Peak periods will typically last over a two-week window with an increased average delivery of 6 trains per week.

7.1.9 This railway operation will be carried out under Section 122 of the Railways Act 1993 which acknowledges a degree of unavoidable noise and disturbance but requires that the operator demonstrates use of 'reasonable diligence' in controlling the resultant noise and/or vibration in order that the operator can claim an immunity defence pursuant of the said Railway Act.

Inspection, Repair, and Maintenance

7.1.10 In accordance with the Schedule 17 Statutory Guidance[9], Schedule 17 cannot be used to control maintenance matters however, in relation to the proposed rail siding it is noted that maintaining the siding will avoid noise and vibration generated by loose or worn components.

7.1.11 The rail siding will fall into the contractor's inspection regime for rail sidings. A fortnightly visual inspection will take place with minor works such as bolt or fastener tightening undertaken using hand tools during the inspection.

7.1.12 If more significant work is required, a repair item will be raised and programmed at the earliest appropriate opportunity, this will normally be at a time when the siding is not required for train delivery.

8 Assessment: Impacts and Proposed Mitigation Measures

8.1.1 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 Phase 1 Code of Construction Practice (CoCP) and Phase 1 Route-Wide Traffic Management Plan.

8.1.2 Planning Forum Note 7[10] (para 25) provides that ... *'In most instances all practicable mitigation measures for temporary scheduled works such as conveyors [temporary railway sidings] will already have been imposed through the HS2 Phase One Code of Construction Practice. Therefore, no additional mitigation plans will be required. However, the nominated undertaker will through the pre-submission process* ***consider with the relevant planning authority whether any further mitigation measures are appropriate.'***

[9] 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

[10] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/931022/PFN7_Bringing_Into_Use_Approvals_P02.pdf

8.1.3 Appendix 1 shows the proposed temporary railway siding which forms part of the West Ruislip rail head required to deliver concrete tunnel lining segments and other construction materials by rail, thus reducing the number of road vehicle movements required for the HS2 project.

8.1.4 The grounds for approval set out in Schedule 17(9) paragraph 4 (a) are applicable to this bringing into use application for the proposed scheduled temporary railway siding (Work no.1/66). Paragraph 4a provides that approval must be granted if there are no reasonably practicable measures needed for mitigating the effect of the work or its operation on the **local environment** or **local amenity.**

8.1.5 With respect to the local environment and amenity, the assessment has considered the mitigation on both residential and recreational receptors with respect to the following impacts

- Visual
- Noise
- Light
- Public rights of way
- Flood risk

8.1.6 The proposed temporary railway siding is to be constructed entirely within existing HS2 Construction compounds namely West Ruislip and Breakspear Road South worksites where civil engineering works such as earthworks, bridge erection, tunnel portal and ramp construction are ongoing therefore all practicable mitigation measures relating to flood risk, nature conservation and historic interest (archaeology) have been applied and ongoing.

Visual

8.1.7 The proposed temporary railway siding does not have any visual impact as it is constructed on ground level. The rail siding itself has no visual impact on the local environment as the steel rails are obscured by site hoarding and therefore not visible to any nearby receptors. Whilst not relevant to the matters for approval under this Schedule 17 request, the visual impact of the segment train using the proposed rail siding with respect to residential and recreational receptors is provided for information only below.

The Greenway residential receptors

8.1.8 The tunnelling support and construction activities comprise of many different activities such as the proposed rail siding (subject of this approval request), the main and interim conveyor, haul roads and other temporary works. See approved Section 61 application (ref: 1MC04-SCJ-EV-APP-SS05_SL07-000042) for list of worksite activities. The operation of the proposed rail siding is the only one that is the subject to this Schedule 17 request for bringing into use approval

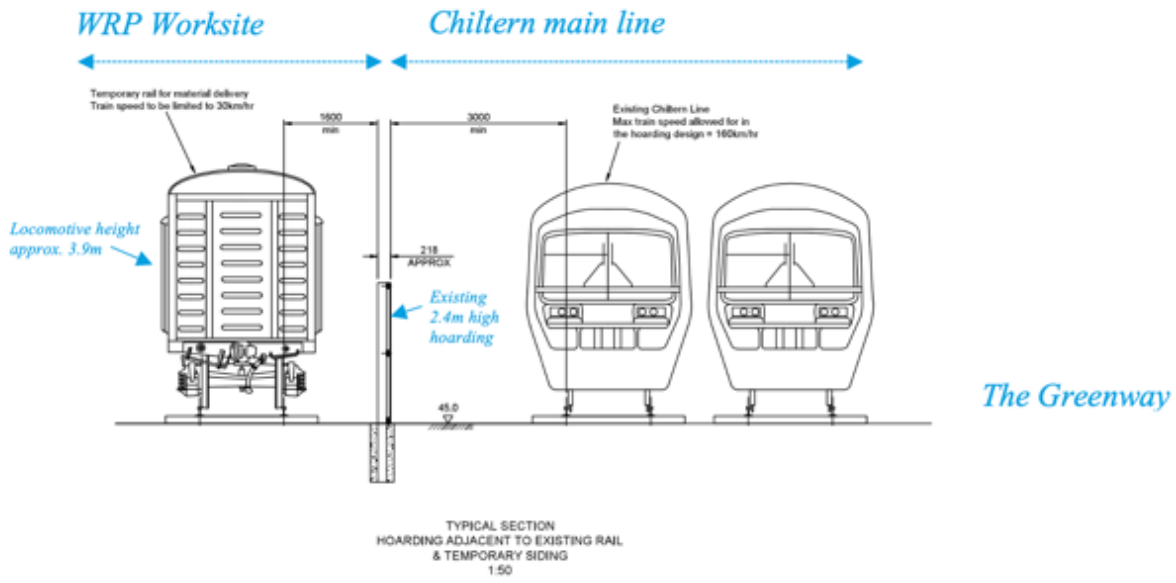
8.1.9 The ES identified that the properties to the northern side of The Greenway will have a major adverse effect on the amenity of the residents owing to significant construction noise from the

tunnelling support activities and visual effects from the construction activities at the tunnel portal.

8.1.10 From the east to west, the rail siding has been designed to remain at the same level as the adjoining existing Chiltern mainline in order to mitigate the visual effect on the residents along the Greenway. This has been achieved via a dispensation to design the rail siding to a steeper gradient than is normal as it begins to rise above the Chiltern main line level on the West Ruislip retained embankment in the west.

8.1.11 Appendix 4 illustrates the wider existing hoarding alignment abutting the Chiltern Line. Figure 16 below shows the relationship between the existing solid timber hoarding, proposed siding and existing Chiltern main line at a point opposite The Greenway (chainage c23+800). The locomotive is 3.9m high (above rail level) whilst the hoarding which sits at ground level is 2.4m high. Approximately 1.9m of the locomotive will be visible above the hoarding from The Greenway in the south. The proposed sidings are approximately 35m from the closest residential receptor.

Figure 16:Typical section: Worksite Hoarding & Chiltern Line



8.1.12 The Greenway which is at a lower level than the Chiltern main line is a cul de sac with bungalows with sizeable rear gardens adjacent to the Chiltern Railway; and double storey dwellings at Buckland Court (closest to the proposed siding) and a low-rise apartment block (165 The Greenway). There is mature vegetation which are both coniferous and deciduous trees and shrubs on the boundary between the Chiltern main line and said Greenway rear gardens providing full screening from the proposed operation of the rail siding. Appendix 2 contains sections from Hoylake Crescent to the location of the proposed temporary rail siding illustrating the vegetation screening obscuring the view

Figure 17: ES Viewpoint 045.2.005: View north from residential properties on the Greenway (Winter & Summer view 2013)

Figure 18:Aerial views of the Greenway (October 2021)

Hoylake Crescent residential receptors

8.1.13 Hoylake Crescent is located approximately 150m to the south of the proposed siding. The residential cluster comprises mainly of two storey dwellings. Views to the proposed scheme are largely obscured by the mature tree cover planted behind the properties.

Figure 19:ES Viewpoint 047.2.002: View north of the dwellings on Hoylake Crescent (at junction with Bushey Road) – winter and summer views (2013)

8.1.14 Appendix 3 contains sections from Hoylake Crescent to the location of the proposed temporary rail siding illustrating the vegetation screening obscuring the view.

Figure 20: Aerial view taken October 2021

Recreational receptors

Figure 21: PROW and HS2 Worksite

8.1.15 The Hillingdon Trail (Footpath U81 and R146) is adjacent to the Ickenham Stream (Ruislip canal feeder) traverses the Ruislip Golf Course and the Chiltern main line as shown in **Figure 21**. The Hillingdon trail section between Clacks Lane and The Greenway (approximately 140m) has been diverted to facilitate the HS2 construction phase.

8.1.16 Post HS2 construction the diverted Hillingdon trail will be reinstated via a footbridge over the Schedule 17 approved portal structure (Approval Reference: 75317/APP/2019/4141) which will link to the existing underpass beneath the Chiltern Line. The footbridge will be the subject of a future Schedule 17 plans and specifications application to London Borough of Hillingdon.

8.1.17 During HS2 construction, part of the Celandine Route (PRoW sections U45 and U46), is temporarily re-routed to the west via Breakspear Road South. This PRoW will be reinstated in its current position post HS2 construction.

8.1.18 King George playing fields which are located south of the Chiltern Mainline and approximately 40m from the proposed development will remain accessible during HS2 construction. The PRoW U47 crosses the fields in a west to east and west to south-east direction. Views from the playing fields to the proposed scheme are largely obscured by the mature tree cover planted along the Chiltern main line boundary.

8.1.19 The ES assessed that the impact on users relating to the temporary re-routing of the Celandine Route (U45 and U46) and the Hillingdon Trail (U81 & R146) will not have a significant effect on the users.

8.1.20 Construction of the rail siding will not impact on public rights of way or any areas to which the public currently has access.

Noise / Vibration

8.1.21 The proposed railway siding will operate 24 hours a day, seven days a week.

8.1.22 In carrying out the works, SCS Railways and its Contractors will adhere to the principles set out in the High-Speed Rail (London-West Midlands) Environmental Minimum Requirements, including Annex 1: Code of Construction Practice. Furthermore, all reasonable steps will be implemented in the design and construction of the scheme so that noise and vibration from construction does not exceed the lowest observed effect levels and noise impact levels defined in High Speed Two Information paper E23: Control of construction noise and vibration. Where it is not reasonably practicable to achieve this objective, noise and vibration from construction will be reduced as far as is reasonably practicable.

8.1.23 SCS is contractually bound to comply with Section 13 of the CoCP which sets out the control measures that will be applied by the nominated undertaker to minimise adverse impacts and effects and requires that Best practicable means (BPM) are applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors. BPM are defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990

8.1.24 SCS is also contractually obligated to comply with Information Paper E23 [11] Control of Construction Noise and Vibration which requires that all reasonable steps to ensure that the works do not exceed the lowest observed effects levels that have been set out.

8.1.25 Section 61 applications will be periodically (every 6 month or as required) submitted to Hillingdon to seek prior consent for construction works. The consent application presents noise modelling predictions and provide details of the noise and vibration mitigation measures to be implemented.

8.1.26 A Section 61 approval request (Application reference:1MC04-SCJ-EV-APP-SS05_SL07-000156 Rev C01) covering the period from 01 November 2022 and 30 April 2023 (inclusive) that is specific to the rail sidings is to be submitted to London Borough of Hillingdon in October 2022. The works to be covered by this Section 61 include operation of the rail sidings serving the Segment Yard, between the River Pinn Underbridge and the West Ruislip Station (Phase 1) for the delivery of concrete segments for tunnel construction. This Section 61 only covers train operation within

[11] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672398/E23_-_Control_of_construction_noise_and_vibration_v1.7.pdf

the Segment Yard, all operation of the trains outside of SCS's site falls under Section 122 of the Railways Act 1993.

8.1.27 Section 122 of the Railways Act 1993 acknowledges a degree of unavoidable noise and disturbance but requires that the operator demonstrates use of 'reasonable diligence' in controlling the resultant noise and/or vibration in order that the operator can claim an immunity defence pursuant of said Railway Act. HS2 Ltd has entered into a Connection Agreement with Network Rail in order to operate the siding and connect to the Network Rail infrastructure.

1.1.1 A separate Section 61 application (Application ref. 1MC04-SCJ-EV-APP-SS-05_SL07-000042, rev. C07) will be presented to the Local Authority to cover all other site activities within all areas of the WRP site between November 2022 and April 2023.

8.1.28 The following noise and vibration mitigation measures (not all relating to Schedule 17) will be implemented:

- The existing 2.4m solid timber hoarding abutting the Chiltern Line (south of the West Ruislip Portal worksite) provides noise attenuation to the Greenway residents.
- The existing rail embankment acts as a noise bund between the works and receptors.
- The trains will mostly be stationary (idling) as they are being unloaded. During this phase the locomotive engine will be shut down and will only be start up again shortly before the time of departure to build brake pressure.
- A combination of attended and unattended noise and vibration monitoring will be in place to monitor the effects on nearby receptors.
- a resilient pad between rail and sleeper baseplate will be incorporated in the construction of the rail siding to reduce noise and vibration;
- Rail lubricators will be fitted to address wheel squeal issues thus reducing noise and prevent unplanned down time from wear and tear.

8.1.29 Noise predictions / modelling information taken from 39 receptors (closest noise sensitive receptors) in the vicinity of the sidings is provided as part of the said rail siding specific Section 61 approval request.

8.1.30 It should be noted that the noise impact from the gantry crane operation (loading and unloading) is generally low and does not contribute significantly to the overall noise levels during daytime, evening and night-time periods, with the highest predicted noise level being 37dB LAeq,1h at locations on the Greenway. This is well below the Lowest Observed Adverse Effect Level (LOAEL) for night-time periods (45dB LAeq,1h) and no adverse effects are

anticipated. The full set of predicted noise levels during operation of the sidings are presented in the table below. No vibration is expected to be perceived at receptors surrounding the sidings due to the slow speed movement along the rail siding and the distance of the nearest receptors.

Table 3:Calculated highest sound pressure levels

Receptor ID	Address	WRP-028 WRRE dB, $L_{Aeq, 1h}$
HILL0001	91 The Greenway, Ickenham	36
HILL0002	61 The Greenway, Ickenham	30
HILL0003	34 Oak Avenue, Ickenham	24
HILL0004	60 Parkfield Road, Ickenham	28
HILL0005	102 Hoylake Crescent, Ickenham	26
HILL0006	118 Hoylake Crescent, Ickenham	34
HILL0007	77/79 The Greenway, Ickenham	37
HILL0008	Fairway Pub SW Façade, Ickenham Road, Ruislip	30
HILL0009	Fairway Pub SE Façade, Ickenham Road, Ruislip	22
HILL0010	Breakspear Road South, Harefield	19
HILL0011	Breakspear Road South, Harefield	12
HILL0012	57 Bushey Road, Ickenham	29
HILL0013	188 Hoylake Crescent, Ickenham	17
HILL0014	114 Copthall Road West, Ickenham	26
HILL0015	96 Copthall Road West, Ickenham	26
HILL0016	Tile Kiln Lane, Harefield	29
HILL0017	Old Priory, Harefield	29
HILL0018	Brackenbury House, Breakspear Road South, Ickenham	27
HILL0019	173 Hoylake Crescent, Ickenham	31
HILL0020	170 Hoylake Crescent, Ickenham	31
HILL0021	158 Hoylake Crescent, Ickenham	36
HILL0022	136 Hoylake Crescent, Ickenham	35
HILL0023	Square Orchard, Breakspear Road South, Harefield	32
HILL0024	17 The Greenway, Ickenham	22
HILL0025	37 The Greenway, Ickenham	29
HILL0026	195 The Greenway, Ickenham	25
HILL0027	139 The Greenway, Ickenham	29
HILL0028	119 The Greenway, Ickenham	31
HILL0029	Remi Gentlemen's Lounge, Ickenham Road, Ruislip	22
HILL0030	108 Ickenham Road, Ruislip	24
HILL0031	155 The Greenway, Ickenham	24
HILL0032	7 The Greenway, Ickenham	28
HILL0033	14 The Greenway, Ickenham	27
HILL0034	1 Harwell Close, Ruislip	25
HILL0035	38 Glenhurst Avenue, Ruislip	29
HILL0036	35 Field Way, Ruislip	28
HILL0037	16 Hill Rise, Ruislip	24
HILL0038	Blenheim Care Centre, Ickenham Road, Ruislip	30
HILL0039	Cottesmore House, Perkins Gardens, Ruislip	25

Light

8.1.31 In accordance with standard railway practice, one buffer stop equipped with red-light warning system for the train driver will be installed at the end of track. The red light will be directed towards the track in order to prevent disturbance to residential areas and passing motorists. This is in accordance with the Class approval for matters ancillary to development under Schedule 17

8.1.32 For Phase 1, 2no. buffer stops (with red light warning systems) will be installed at chainage 24+374 north of the Chiltern main line. At this point the proposed railway siding will be at a higher level than the Chiltern line however, PROW U47 and Hoylake Crescent which lie to the south of this point approximately 60m and 140m away and at a lower level to the Chiltern main line are unlikely to be impacted due to the distance from the red light and the intervening vegetation.

8.1.33 For Phase 2, 1no. buffer stop will be installed at Breakspear Road South bridge (approximately 75m) and Hoylake Crescent (approximately 160m away). At this point the proposed railway siding will be at a higher level that the Chiltern main line. The red light will be facing towards the east therefore no impact on Breaskpear road south in the east. The distance from the residential dwellings at Hoylake Crescent are unlikely to be impacted due to distance away from the red light and the intervening vegetation.

Ecology

8.1.34 The proposed railway siding is located within existing 2no. HS2 Construction compounds i.e. West Ruislip Portal and Breakspear Road South. Vegetation clearance was carried out in 2018 by the HS2 enabling works contractor to facilitate HS2 Phase One works. The vegetation clearance was undertaken with an Ecologist present to identify and manage any ecological constraints. No protected or notable species were recorded during vegetation clearance.

8.1.35 No further vegetation clearance removal is required for the proposed railway siding.

8.1.36 As the construction compounds are operational, control measures are in place to protect the surrounding environment from pollution and indirect impacts. The operations are continuously assessed to mitigate the impacts on species in the local vicinity.

8.1.37 There is one confirmed bat roost in close proximity to the West Ruislip Portal Construction Compound. Any bat roosts identified as being disturbed (e.g indirectly through noise) will be managed using the appropriate licence. Disturbance could also stem from construction compound lighting (not the subject of this application). Light mitigation options are being reviewed (such as limited UV elements / wavelengths of light lower than 550nm) and directional lighting and baffles / cowls could be used for light spill reduction on the bat roost, if required.

8.1.38 With respect to noise, current operations have so far not negatively impacted the bats. Continuous review of noise levels will ensure low frequencies are emitted to reduce impact on the bats.

8.1.39 Bat foraging is unlikely to be affected as the bats are within their carrying capacity given the relatively low bat activity in the area and large green space surrounding the site.

8.1.40 The establishment of the worksites has contributed to the loss of designated sites, habitats (riparian, terrestrial, mosaic railway), woodland, ponds and open watercourse.

8.1.41 The impacts on the habitats will be mitigated post-construction by reinstatement and enhancement of the habitats within the surrounding area. E.g. The post-construction golf course design mitigates and enhances the area to maximise the conservation status of the GCN population.

8.1.42 A Schedule 17 (12) Site Restoration application will be submitted to London Borough of Hillingdon prior to the demobilisation of the said construction compounds which will include the removal of the proposed railway siding. The site restoration will seek to agree a permanent scheme for restoration post HS2 works.

Cultural Heritage

Brackenbury Farm Moated Site

8.1.43 The Brackenbury Farm Moated Site is a Scheduled Monument, the Brackenbury Farmhouse is Grade II listed. This medieval site and listed property lie approximately 210m due south-west from the proposed rail siding.

Figure 22: Extract from Historic England website

8.1.44 Views from the medieval site are screened by mature vegetation, boundary hedgerows, scattered trees and roadside vegetation. The proposed temporary rail siding has no impact or effects on the Scheduled monument or its setting.

Pynchester Moated Site

8.1.45 Views from the medieval site are screened by mature vegetation and scattered trees. The proposed temporary rail siding has no impact or effect on the Scheduled monument or its setting.

Archaeology

8.1.46 The proposed railway siding is near the Chiltern mainline corridor and embankments.

8.1.47 The existing corridor of the Chiltern Main Line is considered previously disturbed ground and therefore no archaeological investigations are required.

8.1.48 Trench excavations to the south of the Chiltern Main Line, west of the River Pinn found no archaeological features or artefacts. The area east of the River Pinn lies within an area of existing disturbance associated with the construction of the embankment for the Chiltern main line

8.1.49 Based on the negative results of the Archaeological Evaluation and the existing disturbance, it was agreed with GLAAS that no further works are required in this area.

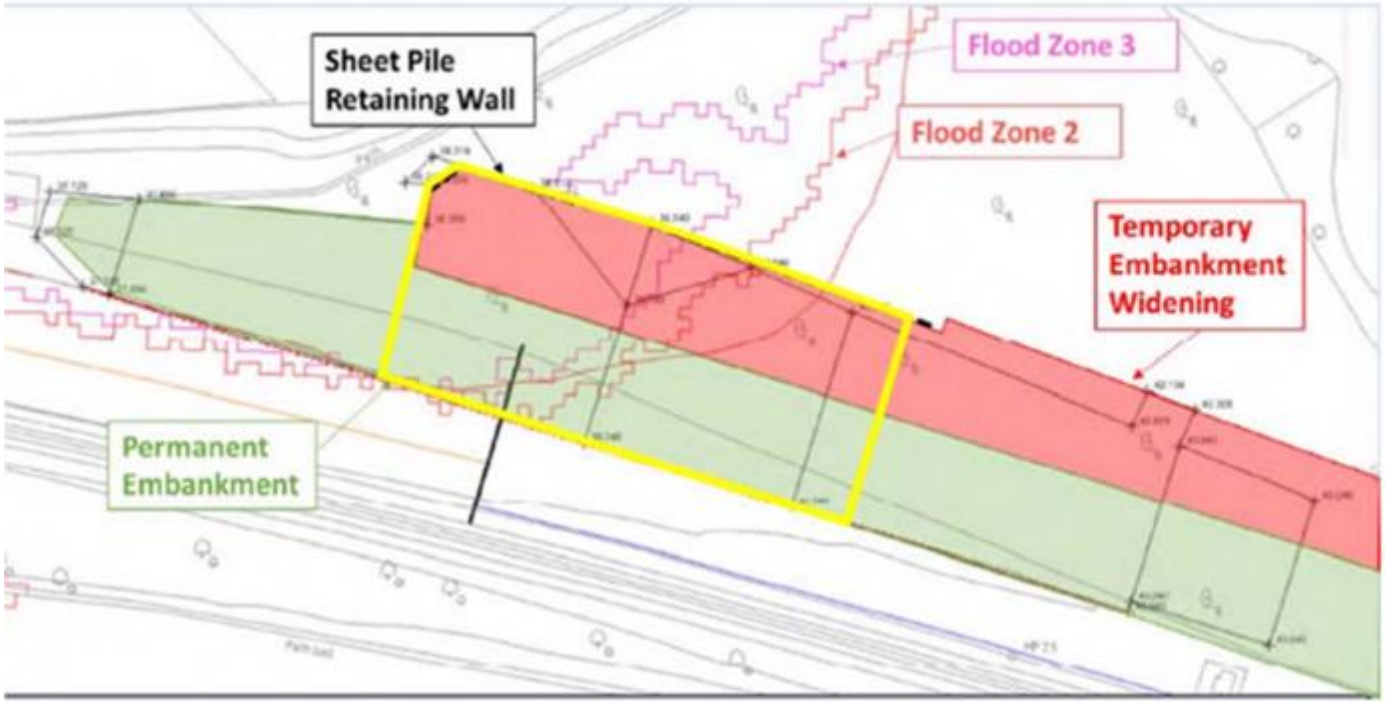
8.1.50 It is therefore concluded that the proposed temporary railway siding has no impacts or effects on archaeology.

Flood Risk

8.1.51 SCS is obligated to comply with Section 16 of the Code of Construction Practice.

8.1.52 As described in section 6, the proposed railway siding (western extent) sits on temporary and permanent embankment. Parts of these temporary and permanent embankments are located within Flood Zone 2/3.

Figure 23: Proposed siding / Flood Zone



8.1.53 A Schedule 33 Part 5 protective provisions application has been submitted and approved to the Environment Agency (Consent ID: SCS-000-0179 and SCS-000-0182) for the construction of both the permanent and temporary embankments which are located within Flood Zone 2/3.

Conclusion

8.1.55 The rail siding incorporates practical mitigation measures most of which are already imposed through the Code of Construction Practice (CoCP) specifically:

- CoCP Section 5 (General requirements – Community Relations, Working Hours and Sight lighting)
- CoCP Section 12 (Mitigation measures relating to potential impacts on landscape and visual receptors)
- CoCP Section 13 (measures to reduce potential noise and vibration impacts)
- CoCP Section 16 (Measures to reduce potential flood risk impacts)

8.1.56 SCS will seek prior consent from LBH under Section 61 Control of Pollution Act 1974 from London Borough of Hillingdon for the construction activities (including segment loading and unloading within the construction compounds).

8.1.57 This operation of the proposed temporary siding i.e. train movements / shunting will be carried out under Section 122 of the Railways Act 1993 which acknowledges a degree of unavoidable noise and disturbance but requires that the operator demonstrates use of 'reasonable diligence' in controlling the resultant noise and/or vibration in order that the operator can claim an immunity defence pursuant of said Railway Act.

8.1.58 Other specific measures include:

- A 2.4m solid timber hoarding for noise attenuation
- a resilient pad between rail and sleeper baseplate will be incorporated in the construction of the rail siding to reduce noise and vibration.
- Rail lubricators will be fitted to address wheel squeal issues thus reducing noise, and prevent unplanned sown time from wear and tear
- The buffer stop red light warning will be directed to track to prevent disturbance to residential areas.
- Maintaining the proposed siding at the same level as the Chiltern main line to mitigate visual impact on The Greenway.

8.1.59 In due course a Schedule 17(12) 'Site Restoration' submission will be made to London Borough of Hillingdon which will propose a scheme for the permanent landscaping following demobilisation of the worksites and removal of the proposed temporary railway siding.

8.1.60 It is concluded that there are no further reasonably practicable measures which need to be taken for the purpose of mitigating the effect of Bringing into Use Schedule Work 1/66 and accordingly approval can be given under Schedule 17(9)(4)(a).

9 Pre-submission Consultation / Engagement

9.1.1 Pre-submission consultation with the Local Planning Authority, statutory consultees and other relevant stakeholders is summarised in **Table 4** below.

Table 4: Pre-submission Consultation with LPA and Statutory Consultees

Consultee Name	Consultation Date	Method of Consultation / Attended by	Summary of Consultation Outcome
London Borough Of Hillingdon	26th March 2021	**Virtual Meeting:** - **London Borough of Hillingdon:** Ian Thynne; Jill williamson - **SCS:** Lucy Neal; Harry Norman; Tim Burr; Josh Venes - **HS2:** Joyce Tang	- Project overview / requirement / interfaces - Alignment (proposed vs scheduled) - Consenting Regime & Process - Indicative Programme
London Borough of Hillingdon	15th October 2021	Virtual Meeting: **-London Borough of Hillingdon:** Ian Thynne; Jill Williamson; Rick Connors **-SCS:** Lucy Neal; Emma Tetlow; Daniel Worsley; Tim Burr; Laura Cobden, Daniel Orton **-HS2:** Steve Austin, Asbaha Khanom	**Conveyor and Siding;** -Alignment, - Massing, - Visual Impact -Operational use
London Borough of Hillingdon	29th October 2021	Virtual Meeting **-London Borough of Hillingdon:** Ian Thynne; Jill Williamson **-SCS:** Chris Polack; Andrew Knight, Emma Tetlow, Laura Cobden, Glenn Tobin, **-HS2:** Steve Austin, Asbaha Khanom	Siding - Alignment (Phase 1&2) - Archaeology and Ecology - Indicative Programme - Respond to comments and actions from previous meeting

10 Construction Programme

10.1.1 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 5** below. The programme for works on site may vary from the indicative dates shown.

Table 5: Proposed Programme and Sequence of Works

Anticipated Start on Site Date	Activity	Estimated Completion of Works
12/09/22	Rail Siding Construction Phase 1 (from connection with Network Rail network to approx. 24 + 374	21/12/22
22/12/22	Rail Siding Phase 1 Operational Use	09/07/24
01/08/23	Rail Siding Construction of Phase 2 (over River Pinn to end point))	09/07/24
30/03/22	Scheduled Main Conveyor construction	31/03/23
31/03/23	Scheduled Main Conveyor Operation	31/03/23
04/08/25	West Ruislip Portal Worksite Demobilisation	01/09/25
	Breakspear Road Worksite Demobilisation	06/08/24

11 Other Consents

11.1.1 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 6 may be required.

Table 6: Other Consent Requirements

Consent	Works Requiring Consent
HS2 Act, Schedule 33, Part 5	• Construction of both the permanent and temporary embankments located within Flood Zone 2/3 (Approved)
Schedule 17 Plans and Specifications	• West Ruislip Portal Works (Portal, Headhouse and Headhouse compound, noise barriers, ponds and embankments) (Approved ref: 75317/APP/2019/4141) • Embankments i.e., West Ruislip retained embankment and Gatemead (Approved ref: 76293/APP/2021/1158) • Bridges i.e., River Pinn and Breakspear Road Underbridges (Approved ref: 76293/APP/2021/1158) • River Pinn diversion and flood compensation area
Schedule 17 Bringing into Use	• Temporary Conveyor from West Ruislip Portal to the Southern Treatment area via bridges over the temporary sidings, River Pinn, Breakspear Road South and the Chiltern Railway.
Schedule 17 Site Restoration	• All worksites
Control of Pollution Act, Section 61	• All worksites

APPENDIX 1: Engineering Layout General Arrangement Drawing

(Document ref: 1MC04-SCJ_TRA-RT-DDE-SS05_SL07-900001Rev. C01)

APPENDIX 2: Illustrative sections from The Greenway

(References: 1MC04-SCJ-CL-DSK-SS05_SL07-530023 rev. P01.1 and 1MC04-SCJ-CL-DSK-SS05_SL07-530024 rev. P01.1)

APPENDIX 3: Illustrative sections from Hoylake Crescent

(References: 1MC04-SCJ-CL-DSK-SS05_SL07-530021 rev. P01.1 and 1MC04-SCJ-CL-DSK-SS05_SL07-530022 rev. P01.1)

APPENDIX 4: Hoarding Alignment Drawing

(Reference:1MC04-SCJ-CL-DGA-SS05_SL07-480002 Rev. C02)