

Item No. **Report of the Head of Planning and Enforcement**

Address: COPTHALL TUNNEL HARVIL ROAD AND BREAKSPEAR ROAD SOUTH HAREFIELD

Development: Request for approval of Plans and specifications under condition imposed by Schedule 17 to the High Speed Rail (London - West Midlands) Act 2017 for works associated with the Copthall Tunnel, comprising of a headhouse and compound, a telecommunications mast (location only), east & west portals, a road underbridge, 5 no. tunnel ventilation openings, a maintenance siding, flood compensation area and associated earthworks, fencing and lighting.

LBH Ref Nos: 76767/APP/2021/3540

Drawing Nos:	Date of Plans:
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680303 Landscape - Indicative mitigation	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-68210 Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682204 Earthworks Cross Sections Sheet 4	16-09-2021
1MC04-SCJ_SDH-AR-DEL-SS05_SL07-680016 East Portal Sections and Elevations	16-09-2021
1MC04-SCJ_SDH-AR-DEL-SS05_SL07-680012 West Portal Sections and Elevations	16-09-2021
1MC04-SCJ_SDH-AR-DEL-SS05_SL07-680014 T.N.V.O Sections and Elevations	16-09-2021
Covering Letter	16-09-2021
1MC04-SDHS-DGA-SS05-SL07-680200 Schedule 17 Plans and Specifications	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680311Landscape GA plan - Hard landscape and Earthworks	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682105 Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682205 Earthworks Cross Sections Sheet 5	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682203 Earthworks Cross Sections Sheet 3	16-09-2021
1MC04-SCJ_SDH-EL-DGA-SS05_SL07-680451 External lighting	16-09-2021
1MC04-SCJ_SDH-EL-DDE-SS05_SL07-684451 External lighting and installation	16-09-2021
1MC04-SCJ_SDH-AR-DPH-SS05_SL07-680032 Ill elevations	22-09-2021

1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680302 Landscape GA plan - Indicative mitigation Schedule	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680312Landscape GA plan - Hard landscape and Earthworks	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680304Landscape GA plan - Indicative mitigation	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680313Landscape GA plan - Hard landscape and Earthworks	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682101Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682201Earthworks Cross Sections Sheet 6	16-09-2021
1MC04-SCJ_SDH-AR-DGA-SS05_SL07-680011 Headhouse and West Portal Mouth GA	16-09-2021
1MC04-SCJ_SDH-AR-DSE-SS05_SL07-680021 Headhouse Sections	16-09-2021
1MC04-SCJ_SDH-AR-DPH-SS05_SL07-680091 Materials	22-09-2021
Noise Demonstration Report	22-09-2021
MC04-SCJ_SDH-LS-DGA-SS05_SL07-680300 Landscape GA plan - Indicative mitigation	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682102 Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682202 Earthworks Cross Sections Sheet 2	16-09-2021
1MC04-SCJ_SDH-AR-DPL-SS05_SL07-680013 Tunnel Natural Ventilation Openings GA	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680301 Landscape GA plan - Indicative mitigation	16-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680314 Landscape GA plan - Hard landscape and Earthworks	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682106 Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-AR-DGA-SS05_SL07-680015 Eastern Portal Mouth GA	16-09-2021
1MC04-SCJ_SDH-AR-DEL-SS05_SL07-680031 Headhouse Elevations	16-09-2021
Schedule 17 Plans and Specifications Proforma	22-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682103 Indicative Soft Mitigation Sections	16-09-2021
1MC04-SCJ_SDH-LS-DSE-SS05_SL07-682201 Earthworks Cross Sections Sheet 1	16-09-2021
1MC04-SCJ_SDH-EL-DGA-SS05_SL07-680452 External Lighting Lux Levels	16-09-2021
Written Statement	22-09-2021
1MC04-SCJ_SDH-LS-DGA-SS05_SL07-680201 General arrangement overview plan	16-09-2021

Drawing Nos:

Date of Amended Plans:

Date Application Valid: 22nd September 2021

1. SUMMARY

This application comprises a Plans and Specifications submission under Schedule 17 of the HighSpeed Rail (London-West Midlands) Act 2017 (The Act), in relation to a headhouse and compound, a telecommunications mast (location only), east & west portals, a road underbridge, 5 no. tunnel ventilation openings, a maintenance siding, flood compensation area and associated earthworks, fencing and lighting.

There is no statutory obligation to consult with neighbours. However, Natural England, the Environment Agency and Historic England (including GLAAS) are statutory consultees for this proposal and have raised no objections.

The application is the latest in a series of HS2 Schedule 17 planning submissions that have been deposited with the Council. These Schedule 17 planning submissions can best be likened to the submission of reserved matters, where outline planning consent, has already been granted. This includes the principle of a portal structure, headhouse and ancillary works having already been approved in this broad location. The role of the Planning, Authority is therefore heavily restricted as to what can and cannot form the basis of a decision.

No objections are raised to the proposed fencing, lighting, telecommunications or parking arrangements.

Officers are of the opinion that the proposals would not have a detrimental impact on a site of ecological value (i.e. a designated site) or an archaeological area of importance.

It is considered 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 in terms of its impact on the local environment / local amenity, in accordance with Paragraph 9 sub section (4)(a) of Schedule 17 of the Act.

2. RECOMMENDATION

APPROVAL

INFORMATIVES

3. CONSIDERATIONS

3.1 Site and Locality

application site (hereafter known as 'the site') is located in the London Borough of Hillingdon (LBH), between the existing Harvil Road in the west and Breakspear Road South in the east. The site is north of the existing Chiltern Line railway and south of Newyears Green Lane. Prior to early site clearance undertaken by HS2's Early Works Contractor (EWC), the modified landscape generally consisted of grassland, discrete woodland and hedgerows, used for agricultural purposes. The site rises from the Chiltern Line railway in the south toward Newyears Green Covert in the north. At Newyears Green Covert, the landscape gently slopes down, north towards Newyears Green Lane. The site adjoins the approved Gatemead Embankment scheme to the east (LBH reference: 76293/APP/2021/1158).

The site is located in the north-west of the borough and there are significant natural spaces within the wider area, including Ruislip Woods, Bayhurst Woods, Broadwater Lake, Uxbridge Golf Course and Ruislip Golf Course. The site itself is situated within the boundary of the Colne Valley Regional Park. Figure 1 below shows the area surrounding the Schedule 17 application.

The area of the site and surrounding land is designated Green Belt land. The site is surrounded by semi-rural land uses, including agricultural, industrial and residential properties.

To the east, the site borders a former animal health research centre (referred to as the Merck Sharp & Dohme (MSD) site), with Breakspear Road South running north-east to south-west along the eastern edge of the site. The eastern side of Breakspear Road South is lined with residential receptors to the south of the site, with Ruislip Golf Course and the River Pinn further beyond the north-east boundary of the site.

To the north, the site generally borders Newyears Green Lane. To the north of Newyears Green Lane are a pattern of open fields, with some industrial land use, including the Hillingdon Recycling Centre located either side of this road.

Harvil Road is located in a north-south orientation to the west of the site. Land uses alongside Harvil Road include a mix of agricultural, commercial and industrial businesses including the Dogs Trust West London and Certas Energy Bunker Site.

Immediately to the south, the site is bordered by the existing Chiltern Line railway which is itself bordered by agricultural uses and Copthall Farm. Some residential receptors are located to the south of the junction of Breakspear Road South and Harvil Road.

While there are some residential receptors near the site, the main residential areas are to the east of Breakspear Road South and to the south and west of Harvil Road. The closest residential receptors are situated at 5 Grays Cottage (approximately 0.5 kilometres away), Breakspear Road South and Copthall Farm West (both approximately 1 kilometre away).

3.2 Proposed Scheme

The relevant scheduled works as set out under Schedule 1 of the Act to which this Schedule 17: Plans and Specifications submission relates are:

- Work No. 1/61 - A railway (2.27 kilometres in length), partly in tunnel commencing by a junction with the termination of Works Nos. 1/15 and 1/1 passing north westwards and terminating at a point 225 metres north of the junction of Harvil Road with Skip Lane. Work No. 1/61 includes a shaft at West Ruislip and bridges over the River Pinn and Breakspear Road South.

The Environmental Statement (ES) (as amended) describes the proposed scheme as a 1km section predominantly in cutting, with a maximum depth of 20m below existing ground level. Key permanent features include a single-track siding to allow periodic stabling of track maintenance equipment; screening between the proposed scheme and the existing Chiltern Main Line; diversion of a water main belonging to Affinity Water and a high-pressure gas pipeline.

Areas for ecological and landscape planting were identified for locations throughout this section of the route, to provide visual screening and habitat creation. Planting areas adjacent to the railway and its associated earthworks throughout this section are illustrated in the maps accompanying the ES.

The works submitted for approval under this Schedule 17: Plans and Specifications application comprise several elements, from west to east: West Portal and Harvil Road Bridge, Headhouse and compound, five Natural Ventilation Shafts above the cut and cover tunnel, and East Portal.

The following above ground works are requested for approval in this Schedule 17: Plans and Specifications application:

- Building works (Schedule 17, paragraph 2);
- Road vehicle parking (Schedule 17, paragraph 3);
- Earthworks (Schedule 17, paragraph 3);
- Telecommunications equipment (location only) (Schedule 17, paragraph 3);
- Fencing/walls (location only) (Schedule 17, paragraph 3); and
- Artificial lighting equipment (Schedule 17, paragraph 3)

Detailed descriptions of the proposed works are set out in the following sections.

3.3 Relevant Planning History

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.

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.

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

HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). The EMRs comprise the following suite of documents:

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

These controls along with the powers contained in the High Speed Rail (London - West Midlands) Act and the Undertakings and Assurances are designed to ensure that impacts which have been assessed in the Environmental Statement (ES) will not be exceeded. The Environmental Statement (ES) is an assessment of the likely significant environmental effects of the proposed HS2 railway and the proposals to avoid, reduce or remedy these likely significant environmental effects.

4. ADVERTISEMENT AND SITE NOTICE

4.1 Advertisement Expiry Date: Not Applicable

4.2 Site Notice Expiry Date: Not Applicable

5.0 PLANNING POLICES AND STANDARDS

The following Local Plan Policies are considered relevant to the application. In so far as this application is concerned the most pertinent policies applicable to the proposals relate to Green Belt, Biodiversity and Flood Risk Management.

Part 1 Policies:

1. PT1.EM2 (2012) Green Belt, Metropolitan Open Land and Green Chains

(2012) Green Belt, Metropolitan Open Land and Green Chains

2. **PT1.EM3 (2012) Blue Ribbon Network**

(2012) Blue Ribbon Network

3. **PT1.EM6 (2012) Flood Risk Management**

(2012) Flood Risk Management

4. **PT1.EM7 (2012) Biodiversity and Geological Conservation**

(2012) Biodiversity and Geological Conservation

5. **PT1.EM8 (2012) Land, Water, Air and Noise**

(2012) Land, Water, Air and Noise

6. **PT1.HE1 (2012) Heritage**

(2012) Heritage

Part 2 Policies:

1. **DMEI 10 Water Management, Efficiency and Quality**

Water Management, Efficiency and Quality

2. **DMEI 11 Protection of Ground Water Resources**

Protection of Ground Water Resources

3. **DMEI 7 Biodiversity Protection and Enhancement**

Biodiversity Protection and Enhancement

4. **DMEI 9 Management of Flood Risk**

Management of Flood Risk

5. **DMHB 1 Heritage Assets**

Heritage Assets

6. **DMHB 14 Trees and Landscaping**

Trees and Landscaping

7. **DMT 2 Highways Impacts**

Highways Impacts

8. **DMEI 4 Development on the Green Belt or Metropolitan Open Land**

Development on the Green Belt or Metropolitan Open Land

9. **LPP G2 (2021) London Green Belt**

(2021) London's Green Belt

10. **LPP G6 (2021) Biodiversity and access to nature**

(2021) Biodiversity and access to nature

11. **LPP G7 (2021) Trees and woodlands**

(2021) Trees and woodlands

12. **LPP G9 (2021) Geodiversity**

(2021) Geodiversity

13. **LPP HC1 (2021) Heritage conservation and growth**

(2021) Heritage conservation and growth

14. **LPP SI12 (2021) Flood risk management**

(2021) Flood risk management

15. **LPP SI17 (2021) Protecting and enhancing London waterways**

(2021) Protecting and enhancing London's waterways

16. **LPP SI5 (2021) Water infrastructure**

(2021) Water infrastructure

17. **NPPF12 NPPF 2021 - Achieving well-designed places**

NPPF 2021 - Achieving well-designed places

18. **NPPF13 NPPF 2021 - Protecting Green Belt Land**

NPPF 2021 - Protecting Green Belt Land

19. **NPPF14 NPPF 2021 - Meeting the challenge of climate change flooding**

NPPF 2021 - Meeting the challenge of climate change flooding

20. **NPPF15 NPPF 2021 - Conserving and enhancing the natural environment**

NPPF 2021 - Conserving and enhancing the natural environment

21. NPPF16 NPPF 2021 - Conserving & enhancing the historic environment

NPPF 2021 - Conserving & enhancing the historic environment

22. NPPF4 NPPF 2021 - Decision-Making

NPPF 2021 - Decision-Making

23. NPPF9 NPPF 2021 - Promoting sustainable transport

NPPF 2021 - Promoting sustainable transport

6.0 COMMENTS ON PUBLIC CONSULTATION

6.1 SUMMARY OF NATURAL ENGLAND'S ADVICE

NO COMMENT

Based on the plans submitted, Natural England considers that the proposed development will not have significant adverse impacts on statutorily protected sites or landscapes.

Natural England's advice on other natural environment issues is set out below.

Schedule 17 for HS2

This planning proposal is for a development scheme or works scheduled under the provisions of the High Speed Rail (London-West Midlands) Act (2017) which form part of the High Speed Two scheme within your area. It should therefore be determined using the planning regime established by that legislation. The Act grants the work deemed planning permission, subject to certain matters and details of the deemed consent being reserved for subsequent local planning authority approval under Schedule 17.

We advise that, in determining the consultation, the planning authority should have regard to the permissions already granted under The Act, and to any relevant supporting documents to The Act

HISTORIC ENGLAND (GLAAS)

The Greater London Archaeological Advisory Service (GLAAS) provides archaeological advice to boroughs in accordance with the principles set out in the National Planning Policy Framework and GLAAS Charter. In the present context, GLAAS has been providing advice to yourselves and HS2 Ltd on mitigating the archaeological impact of the new railway since the project's inception and we continue to liaise closely with HS2's historic environment team and their consultants.

This application is made under the High Speed 2 (London - West Midland) Act and Historic England is a statutory consultee under Schedule 17 paragraph 18(1)(f) of the Act. This is because the land affected was thought to have archaeological potential and consequently has been subject to archaeological evaluation as described in the applicant's written statement. In practice the area affected by this application proved to be of little archaeological interest, however trial trenches did discover a palaeochannel with medieval pottery in the northwest flood alleviation area just east of Harvil Road. Some further investigation there has been agreed under the HS2 Historic Environment Research and Delivery Strategy.

Schedule 17 to the Act makes provision for a planning authority to refuse permission if the design or external appearance of the works ought to, and could reasonably, be modified to preserve a site of archaeological or historical interest. My advice is that there is no need to seek modification to this application on archaeological grounds.

However, in relation to design I should mention that the pre-application consultation over the tunnel I also suggested that the natural ventilation openings over the tunnel might draw upon the local area's historic brick and tile making industry for design inspiration. Unfortunately, I see that idea hasn't been taken forward.

ENVIRONMENT AGENCY

We are not sure why the Environment Agency has been consulted on this. We did not request any condition under the schedule 17 therefore it wouldn't be our remit to respond on submissions in relation to such submission.

If this was sent to cover off all consultees you can take this response as no objection.

CADENT GAS

We have received a notification regarding a planning application which is in the vicinity of our gas asset/s. We are placing a holding objection on the proposal whilst our engineering team reviews the available information. We will be in touch once we have reviewed the proposals in more detail. In the meantime, we may contact you for more information to help use make a decision.

Additional Comments

Cadent Gas confirm that the objection is no longer valid on the basis of the signed Interface Control Document (ICD) ref:1MC04-SCJ-UT-ICD-S002-000003 which includes the Copthall Tunnel 48"diameter gas pipeline HS2 Asset No: Lon40501 Cadent Gas Asset No. HP06 .

6.2 No response.

7.0 MAIN PLANNING ISSUES - High Speed Rail(London - West Midlands) Act

7.1 The following above ground works are requested for approval in this Schedule 17: Plans and Specifications application:

- Building works (Schedule 17, paragraph 2);

The erection, construction, alteration or extension of any building

In accordance with Schedule 17 of the Act, the relevant planning authority may only refuse to approve plans or specifications on defined grounds. Paragraph 2 of Schedule 17 outlines the grounds for determination for 'building works',

The grounds for determination under Paragraph 2 of Schedule 17 are as follows:

- (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.

Appraisal

The detailed design for approval under this Schedule 17: Plans and Specifications application is different from the design as detailed in the ES. Following a comprehensive review of the Copthall Cutting at the end of the 'Scheme Design' stage in 2019, the decision was made to change the design from a cutting to cut and cover tunnel. This new design provides two main benefits:

- The reuse on site of a significant amount of material (approximately 1.1 million cubic metres), resulting in a substantial reduction in the number of lorries required to take the material away on the local highway network; and
- The cut and cover tunnel ensures a better, greener integration of the railway within the surrounding landscape, reducing its visual impact.

The tunnel will be constructed using a cut and cover method, with excavation being undertaken to facilitate the construction of the tunnel concrete box structure, which will then be covered or backfilled with material, and a landscaping scheme implemented on top. The tunnel structure will include the two portals at either end, and five natural ventilation openings at 100 metre intervals. This Schedule 17: Plans and Specifications application is only required to seek approval for above ground structures, and therefore the length of the tunnel that will be below ground level is illustrated on plans for information only in order to provide context.

West Portal & Harvil Road Bridge

The West Portal will be formed of reinforced concrete wingwalls, topped with steel post and rail parapets. Due to its proximity to the realigned Harvil Road, the West Portal structure will also be integrated with the Harvil Road Bridge, with the bridge structure and the 1.8m precast concrete parapets subject to approval as part of this Schedule 17 application. The highway works associated with the realignment of Harvil Road are subject to a separate Schedule 4 application, yet to be submitted, and the Schedule 17: Plans and Specifications application which was submitted to London Borough of Hillingdon on 24th May 2021 (Planning application reference 76459/APP/2021/2049).

The West Portal, which incorporates the Harvil Road Bridge over the HS2 lines, features a post and rail parapet solution which reduces the amount of concrete and visual bulk, whilst maintaining operational integrity. The bridge component will be protected on either side by standard HS2 concrete precast parapet modules as well as vehicle restraint barriers, following the HS2 technical standards.

Headhouse and compound

The headhouse building and compound are located to the south of the proposed HS2 railway line and West Portal.

The headhouse will comprise a rectangular single-storey building, approximately 30.3m x 21.3m by 6.4m high. It will be finished with modified high performance timber cladding on the east, north and

south sides, and with a combination of timber and steel on the west side, as shown on drawing for approval 1MC04-SCJ_SDH-AR-DEL-SS05_SL07-680031. The headhouse compound also provides space provision for a telecommunication mast (for which the design and external appearance will be subject to a future Schedule 17 application).

The function of the headhouse is to provide:

- All the mechanical and electrical services required for the Copthall Tunnel;
- A hardstanding area providing access for emergency fire brigade intervention and emergency passenger evacuation in case of an incident within the tunnel; and
- Mechanical and electrical equipment and control systems necessary to control conditions within the headhouse plant rooms.

In contrast to other headhouses, the Copthall Tunnel headhouse is located adjacent the HS2 rail corridor, rather than on top of a ventilation shaft (such as at South Ruislip) or portal structure (such as West Ruislip). Regardless, given the headhouse's proximity to the existing Network Rail corridor (as well as the new HS2 rail corridor), the overarching theme to enhance the green corridor and to be considered a sculptural element within this enhanced landscape continues to apply.

The landscape design at the headhouse limits views to the building from Harvil Road through dense woodland planting. Where this is not possible due to topography (namely the realigned Harvil Road embankment), the proposed design includes scrub habitat. Around the headhouse itself, and in the adjacent C1 contract (Align JV) area, grassland is proposed.

Due to the requirement for a 50-metre exclusion zone around the tunnel natural ventilation openings, the planting proposed in this area a biodiverse, species rich grassland. This approach will encourage varied micro typologies and a mosaic of habitats. It will also create a variation in colour, texture and height and reinforces ecological connectivity.

The headhouse will be a single storey building formed of two elements, one of which extends beyond the other, to define the main entrance point and to provide the building with greater articulation. Space provision has been made for a telecommunications mast (subject to a future Schedule 17 application) to be located adjacent to this entrance (on the headhouse central axis).

An external staircase to the headhouse will provide maintenance access to the roof, which features a green roof and small amount of roof level plant and equipment. Alongside the landscaping incorporated into the surrounding embankment, this green roof helps integrate the headhouse building into the rural setting, whilst enhancing the ecological value of the site. Low level roof mounted plant has been positioned adjacent the headhouse roof parapet wall, to minimise views to plant from nearby highpoints (Harvil Road).

To address the local context while retaining an overall common identity with other headhouses, the common materials palette which features a sliding scale between rural and urban locations has been applied to the design of the Copthall Tunnel headhouse. The scale is characterised by the greater use of either timber or brick, depending on the rural-urban character of the locality, with the consistent use of metal for operation reasons throughout.

Copthall Tunnel is located at the rural end of this materials scale and as such, the Copthall Tunnel headhouse features the significant use of timber, rather than brick. This is intended to help blend the building into its landscaped setting. Within LBH, this is particularly relevant in comparison to the vent shaft headhouse at South Ruislip, which given its industrial and generally less landscaped

location, in contrast features significant amounts of brick alongside timber.

The headhouse timber cladding will comprise a high performance, sustainably sourced softwood. It will be modified to have a high level of durability and will remain in good condition for more than 60 years, reducing maintenance requirements. It will naturally weather to a silver grey, continuing to blend into the natural landscaped setting.

Metal is included in the design of the building facade as required to meet the operational needs of the headhouse, however is considered less prominent than timber. The dark grey, factory coated metal addresses the technical requirements of panels, doors, louvres, and other metalwork components.

The access stair to the west elevation will fit within the timber box but will be open with a metal security grill to the west elevation. This will provide both visual interest as well as architectural articulation.

Natural Ventilation Openings

There are five natural ventilation openings that will be formed as part of the tunnel structure, that will protrude upwards out of the newly formed ground level on top of the tunnel. From the new ground level, these rectangular structures will rise to approximately 3.4m in height. The structures will be made of concrete and cladded with weathering steel.

The natural ventilation openings will be constructed to provide ventilation to the Copthall Tunnel below and have been designed to naturally control smoke in the event of a fire and provide for environmental control/airflow in the scenario where trains are stalled in the tunnels below. The number / spacing of the openings ensures that there will be no need to install any mechanical ventilation equipment as part of the tunnels.

The openings will be fitted with module grill gratings, to ensure that the ventilation openings are kept secure.

The natural ventilation openings above the tunnel will comprise five vents, which will naturally stabilize the air pressure differences within the tunnel. They will also provide for natural ventilation in the event of an emergency. The openings will be rectangular in shape, and will be constructed in pre-cast concrete, as part of the tunnel structure. They will be 3.4 metres in height, relative to ground level and the above ground structure will be clad in weathering steel.

Following engagement with LBH, weathering steel was chosen as the preferred material for the Natural Ventilation Openings as it will achieve the desired design life of 120 years, with maintenance and replacement of the cladding panels. The material is non-combustible and non-climbable, making it a safe material for the purposes of the Natural Ventilation Openings. This material is also consistent with materials used on other HS2 assets and falls within the wider design vision.

East Portal

The East Portal will be located adjacent to the western end of the Gatemead Embankment, which has been approved under a separate Schedule 17: Plans and Specifications submission (LBH application reference: 76293/APP/2021/1158). As per the West Portal, the East Portal structure

includes reinforced concrete wingwalls topped with a concrete parapet. A handrail will not be needed on top of the parapet, due to its proposed height above ground level.

The concrete wingwall at the East Portal will adjoin to the noise barriers, which have gained approval as part of the Gatemead Embankment application (LBH application reference: 76293/APP/2021/1158).

Visual Impact and Local Amenity

The visual impact of the scheme on surrounding receptors has been carefully considered. Where possible, the use of planting has screened the built elements. The proposed scheme will be visible from different viewpoints around the area and will have impact on the landscape. The magnitude of changes will result in significant landscape changes in year one which will mostly decrease to being non-significant in year 15 and 60, as planting matures.

Planting on the boundary of the proposed scheme will not be mature enough to screen the southern views from the Dogs Trust Harefield and Highways Farmhouse in the first year of operation. It is expected that by year 15 and beyond, the planting will be established on the boundaries of the proposed scheme which will screen it from view from this receptor.

The residential receptors along Harvil Road will have views over the embankment and the cut and cover tunnel due to the lack of mature screening planting. In combination with the realignment of the overhead power line and the Colne Valley Viaduct, this will result in major adverse effect in the first winter of operation. The effects will be reduced to non-significant by the growth of the planting on the slope of the Copthall Tunnel, which will screen the element from view.

The MSD pharmaceutical site will have clear views onto the proposed scheme to the south. The lack of mature planting in the first winter will result in clear views over the railway line, security fencing and in open but oblique view of the railway embankment and noise fencing. The effect will not change beyond year one due to the absence of mitigation planting between the receptor and the proposed scheme.

With regards to the mitigation of noise impacts, works have been designed to be compliant with the EMRs, technical standards and HS2 Information Papers E20: Control of airborne noise from altered roads and the operational railway and E22: Control of noise from the operation of stationary systems.

The noise barriers to the east of Copthall Tunnel and the change in design from a cutting to a cut-and-cover tunnel have resulted in an overall reduction in noise levels and noise impacts compared to the Environmental Statement. Whilst the primary noise mitigation in the area is provided by the noise barriers and the earth bund at the Yellow Plant Maintenance Siding, an optioneering exercise has been undertaken to demonstrate that the design of the interface between the noise barriers and the Copthall Tunnel East Portal walls reduces noise levels 'as far as reasonably practicable'.

It is not considered that the design or external appearance of the works ought to be modified to preserve local environment or amenity.

It is not considered that the works will have any detrimental impact on road safety or the free flow of traffic in the local area.

GLAAS considers that the proposal will not have a significant effect on heritage assets of archaeological interest and is satisfied that the question of amending the design to preserve an archaeological site does not arise. It is not therefore considered that the works are reasonably capable of being modified to preserve a site of archaeological or historic interest.

In terms of ecology, Natural England raises no objections to the proposed works. It is not considered that the design or external appearance of the works ought to, and could reasonably, be modified to preserve a site of nature conservation value.

It is not considered that the works ought to or could reasonably be located elsewhere within the development's permitted limits.

- Road vehicle parking (Schedule 17, paragraph 3);

Headhouse compound

A 926m² area of hardstanding around the headhouse will be provided within the compound. This hardstanding area will provide access to the headhouse, whilst also providing car parking space for the maintenance staff and (if required) emergency service vehicles. The design of the compound and vehicle hardstanding has been informed by swept path analysis to ensure that there is sufficient space within the compound to allow for vehicle manoeuvrability.

The site will be visited infrequently by operational personnel under normal operating conditions (i.e. for scheduled maintenance). The hardstanding area will accommodate all visiting operational vehicles (in normal operating conditions) entirely within the compound, meaning that no vehicles will be required to park outside the compound.

Yellow Plant Maintenance Siding

An 893m² area of hardstanding will also be provided adjacent the Yellow Plant Maintenance Siding. This hardstanding and road vehicle parking is required for HS2 maintenance access to the proposed Yellow Plant Maintenance Siding. An access road will adjoin the realigned Harvil Road to the west of the Yellow Plant Maintenance Siding.

The hardstanding will also be used for the provision of a temporary accommodation module, which will be brought on site via lorry, during periods of track maintenance. Any consents or permissions required for the temporary accommodation will be brought forward by the HS2 Rail Systems Contractor.

No objections are raised to the proposed road vehicle parking.

- Earthworks (Schedule 17, paragraph 3);

Possible grounds for refusal of approval

That the design or external appearance of the works ought to, and could reasonably, be modified

- (a) to preserve the local environment or local amenity,
- (b) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or

(c) to preserve a site of archaeological or historic interest or nature conservation value.

If the development does not form part of a scheduled work, that the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

Appraisal

There are two stages to the determination of schedule 17s,

(1) is there sufficient evidence that the proposals would likely have an impact (relative to the considerations set out in the Act) and

(2) whether the proposals could and should be modified to avoid the harm.

With regards to the earthworks, the matters for consideration are

(1) the impacts on the local environment and local amenity,

(2) matters relating traffic and

(3) impacts on sites of archaeological or nature conservation value.

If it finds that there are adverse concerns, then the Council needs to be able to demonstrate that the earthworks can be reasonably modified.

Local Environment and Local Amenity:

With regard to design, officers are of the opinion that the earthworks would have a detrimental impact on the local environment and local amenity, principally through the visual intrusion.

However, as set out above, these earthworks have been approved in principle in this location and are necessary to facilitate the construction of HS2. Consequently, earthworks will be necessary to achieve this approved part of the scheme.

West Portal & Harvil Road Bridge

Earthworks will be required at the West Portal, to allow the portal mouth structure to embed into the surrounding landscape and bury the tunnel structure. Embankments will be provided on either side of the realigned Harvil Road to create the required level change, whilst providing a level surface for the road (subject to separate approval under Schedule 4).

Headhouse and compound

The proposed ground level of the headhouse will be below the existing ground level. This will aid in reducing the visual impact of the headhouse building.

Natural Ventilation Openings

Earthworks will be required at each of the five natural ventilation openings, with proposed ground level changes required to provide structural support to the tunnel, and to help the natural ventilation openings blend in with the surrounding landscape.

The proposed ground level will be higher than the existing, to ensure that the tunnel structure is buried and to reduce the visual impact of the natural ventilation openings. The proposed topography mirrors the existing upwards slope from south to north.

East Portal

Earthworks will be required at the East Portal, with proposed ground level changes required to provide structural support to the portal mouth, and to help ensure that the portal structure blends in with the surrounding landscape.

Yellow Plant Maintenance Siding

Earthworks are required at the proposed Yellow Plant Maintenance Siding, to create a surface suitable for the HS2 Rail Systems contractor to install the track and any associated equipment and services (with any consents required obtained under a separate submission in the future). This will involve reducing the existing surface level by approximately 4 meters. The design of these earthworks has been considered holistically in the context of the broader drainage regime of the Copthall Tunnel asset.

Flood Compensation Area

The Flood Compensation Area is located in the area to the north of the West Portal. Earthworks associated with the Flood Compensation Area are subject to approval under this Schedule 17: Plans & Specifications application.

The FCA will have a total area of 13,300m² (9,040m² in the northern section and 4,260m² in the southern). The northern area is approximately 75m x 60m, with a maximum excavation depth is approximately 0.7m. The southern area is approximately 220m x 45m and has a maximum excavation depth of approximately 1.2m.

Officers cannot see any other reasonable modifications that would reduce or remove the harm on the local environment, whilst still facilitating the delivery of the approved scheme. Therefore, it is not considered that the design or external appearance of the works ought to be modified to preserve local environment or amenity.

It is not considered that the works will have any detrimental impact on road safety or the free flow of traffic in the local area.

GLAAS considers that the proposal will not have a significant effect on heritage assets of archaeological interest

and is satisfied that the question of amending the design to preserve an archaeological site does not arise.

In terms of ecology, Natural England raises no objections to the proposed works. It is not considered that the design or external appearance of the works ought to, and could reasonably, be modified to preserve a site of nature conservation value.

The applicant submits that appropriate mitigation will be developed in line with the Environmental Minimum Requirements (EMRs) and implemented dependent on the outcomes of the surveys and subject to the appropriate legislation. Consultation with Natural England (NE) and the Environment Agency (EA) has been undertaken both of whom raise no objection.

It is not considered that the works ought to or could reasonably be located elsewhere within the development's permitted limits.

- Telecommunications equipment (location only) (Schedule 17, paragraph 3);

Headhouse and compound

A telecommunications mast will be located on the south-western side of the headhouse. Only the location of the telecommunications mast is for approval in this Schedule 17: Plans and Specifications application. The design and external appearance of the telecommunications will be subject of a later Schedule 17: Plans and Specifications application, progressed by the HS2 Rail Systems Contractor. This 'location only' approach replicates that undertaken for the Autotransformer Station proposed at the South Ruislip Vent Shaft site within the approved Schedule 17 submission (7215/APP/2020/2901).

No objections are raised to the location of the telecommunications equipment.

- Fencing/walls (location only) (Schedule 17, paragraph 3);

Whilst the design and appearance of fencing is not for approval under this Schedule 17: Plans and Specifications application, the different boundary treatments have been considered carefully.

Due to operational requirements, areas of the site require security fencing. This includes the headhouse compound and Yellow Plant Maintenance Siding. Additionally, there is a section of security fencing associated with the MSD site, north of the eastern portal approved by a previous Schedule 17: Plans and Specifications application (72870/APP/2019/2597) approved in October 2019.

Only the location (not the design and external appearance) of fencing requires approval under Schedule 17. Some details and description of the proposed fencing is provided in this section for information only.

West Portal & Harvil Road Bridge

Security fencing will surround the portal structure, tying into the concrete parapet of the Harvil Road Bridge.

Headhouse and compound

The HS2 compound will be secured with security boundary fencing, with a double leaf access gate to the south-west of the headhouse.

Natural Ventilation Openings

A post and rail boundary fence will be located on an east-west alignment to the north of the natural ventilation openings. This has been chosen to provide a 'soft' boundary, to deter the public from accessing the land above the tunnels (of which HS2 will retain ownership) upon which the ventilation openings will be located. Security fencing will be located to the south of the natural ventilation openings to ensure the Yellow Plant Maintenance Siding cannot be accessed by intruders.

East Portal

As with the West Portal, security fencing will surround the portal mouth, running from the east of the proposed site, and connecting to the security fencing around the Yellow Plant Maintenance Siding.

The East Portal fencing will also tie in with the fencing approved as part of the Merck Sharpe Dohme (MSD) site Schedule 17 application (application reference: 72870/APP/2019/2597).

Yellow Plant Maintenance Siding

Security fencing will be located around the entire perimeter of the Yellow Plant Maintenance Siding vehicle parking area. Security fencing will also extend around the railway siding itself, for safety and security purposes. The sidings fencing ties into the existing Network Rail fencing to the south.

No objections are raised to the location of the proposed fencing.

- Artificial lighting equipment (Schedule 17, paragraph 3)

Headhouse and compound

The headhouse building will feature external artificial lighting, with luminaires either fixed to the headhouse building itself, or on individual free-standing columns throughout the compound area. Under Schedule 17, the design of the artificial lighting unit itself, how it operates with respect to the emission of light and its location, is subject to approval. Lux levels of light perceived at a property outside the site have been provided for information only.

Lighting columns have been used where lighting affixed to the headhouse has proved to be insufficient to provide necessary illumination across the larger compound, namely along the access road and hardstanding area.

A total of 14 lighting columns will be located within the compound, with a further 24 wall mounted lights secured to the boundary wall to the south and east of the headhouse building.

Four building mounted lights are located at the entrances of the headhouse building, three on the west side where the external staircase is located, and a further building mounted light on the east side of the building.

Under normal operating conditions, the compound will not be illuminated, except for the following:

- Compound entry and key access points to the headhouse building will be permanently lit throughout nighttime period to 5 lux. This will ensure a necessary level of security and efficient operation of CCTV cameras; and
- Motion-activated lighting for sporadic HS2 operational purposes, during night-time periods, will be to 10 lux.

No objections are raised to the proposed lighting.

8.0 BOROUGH SOLICITOR COMMENTS

The High Speed Rail Act 2017 received Royal Assent on 23 February 2017. Section 20 of the Act provides that planning permission is deemed to be granted under Part 3 of the Town and Country Planning Act 1990 for development authorised by the Act, subject to the other provisions of the Act and the conditions set out in Schedule 17. It is a condition of the deemed planning permission that the development must be begun no later than the end of 10 years beginning with the date on which the Act is passed.

The planning permission conferred by the Act is analogous to an outline planning permission, which settles the principle of the overall development of Phase One of the HS2 scheme, whilst leaving certain details to be approved at a later stage.

The Council elected to become a qualifying authority which gives it responsibility for approving a wider range of Schedule 17 applications than a non-qualifying authority and also, the grounds upon which it can refuse consent are wider.

The recommendation in the report is to approve HS2 Ltd's Schedule 17 application without any conditions or informatives to be attached to the approval.

As Members of the Committee will be aware, the Council can only refuse Schedule 17 applications or impose conditions to approval of such applications if one or more of the following statutory grounds, as set out in paragraphs 2 and 3 of the Schedule, are satisfied. In summary, these are:

"The design or external appearance of the works ought to, and could reasonably, be modified-

to preserve the local environment or local amenity,

to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or

to preserve a site of archaeological or historic interest or nature conservation value".

As is made clear in the body of the report, none of these grounds are engaged in relation to this particular application and therefore there is no legal justification for Members to refuse it or to impose any conditions if they are minded to approve it.

9.0 OTHER ISSUES

ECOLOGY

The site is located within the Colne Valley Regional Park. One kilometre to the north of the site is the Ruislip Woods National Nature Reserve, the nearest section of this reserve being Bayhurst Woods (see Figure 3). The woodland is varied and mainly consists of lowland mixed deciduous woodland, with ground flora including locally uncommon species.

Denham Quarry Park, Denham Country Park and Fays Valley Local Nature Reserves are located approximately 1.1 kilometres (0.7 miles) to the west of the site.

The site is also within approximately one mile of the Ruislip Woods, Mid Colne Valley, Denham Lock Wood and Fray's Farm Meadows Site of Specific Scientific Interest (SSSI). The Harefield, Mid Colne Valley and Old Park Wood SSSI are situated between 2.5 kilometres (1.6 miles) and 4.5 kilometres (2.8 miles) to the north west of the site. Old Rectory Meadows SSSI is located approximately 3 kilometres (2 miles) to the west of the site (see Figure 3).

Ruislip Wood and Poor's Field Site of Metropolitan Importance (SMI) is also situated north of the site (the SMI is part of Ruislip Woods SSSI and a National Nature Reserve). The HS2

Environmental Statement (ES) also identifies nine Sites of Borough Importance for Nature Conservation (SBI) within the area. Newyears Green SBI.I and SINC (Site of Importance for Nature Conservation) (including an area of designated Ancient Woodland) and Brackenbury Railway Cutting SBI.II and SINC are close to the site.

As part of the preparation of the ES, a wide range of ecological surveys were undertaken to understand the species present on site. The surveys included:

- Barn owls: found to be present in the area
- Bats: found to be present in the area
- Badgers: found to be present in the wider area (Bayhurst Wood and Ruislip Golf Course)
- Invasive species: various found in the wider area, including Japanese knotweed, edible dormouse, Himalayan balsam, Oak processionary moth.
- Great crested newts: medium population identified within Ruislip Golf Course
- Reptiles: grass snake, slow worm and common lizard found in the wider area
- Otters: none found
- Water voles: none found

The applicant advises that a mitigation plan for the protection of the barn owls has been implemented, with potential nest sites capped and six barn owl nest boxes installed. This strategy was agreed with a local barn owl expert, and monitoring in 2021 identified a breeding pair of barn owls in an installed nest box.

Fourteen bat boxes were also installed. Two sites were registered under HS2 Bat Mitigation Class Licence, with roosts closed in line with Natural England requirements.

Monitoring and management of the sites is ongoing, with Ecological Site Management Plans in place for the planting areas (to ensure their success) and for works within the protected areas.

In addition to the works for which approval of plans and specifications is required, the overall mitigation scheme in this location includes elements which are subject to a subsequent Schedule 17: Bringing into Use application. Therefore, all information in this section on Indicative Mitigation is provided for information only and is not for approval under this Schedule 17: Plans and Specifications application.

The application of indicative mitigation measures, mitigating the loss of biodiversity, applies within the boundary of this Schedule 17: Plans and Specifications application and includes the following:

- Ecological planting across the asset area has sought to mitigate the loss of habitat on site. This is achieved through planting woodland, grassland, and scrub planting in addition to formal hedgerows. Much of this planting, in addition to the proposed green roof planting, will further help to enhance biodiversity and provide further replacement habitat, above what was existing on site prior to development.
- The use of naturally profiled swales, as well as the extensive use of gravel and ballast across the asset will provide opportunities for passive on-site water retention.
- The planting of a biodiverse grassland around the natural ventilation openings to help create a specific rich environment in a landscape restricted by the operational requirements of the Copthall Tunnel.

The mitigation will comprise part of the overall mitigation scheme in relation to the scheduled works.

Whilst they are not for approval under this Schedule 17: Plans and Specifications application, they have been brought forward as part of this application for information purposes to provide planning decision makers with the full context of the proposed development's final arrangement.

HERITAGE

The HS2 Heritage Memorandum (part of the HS2 Environmental Minimum Requirements) explains that a route-wide generic written scheme of investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) has been prepared in consultation with Historic England (HE) and the LPA's. 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.

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.

As noted within the Environmental Statement, the infrastructure associated with the Copthall Tunnel will be on the north side of the existing Chiltern Mainline which is on embankment near Brackenburg Farm. Therefore, on completion, the Copthall Tunnel structures will be partially screened by the existing rail embankment from Brackenburg Farm (RUI002) moated site, an asset of high value.

The ES identified 13 designated heritage assets within the surrounding of the site. These are listed in Table 3 and shown on Figure 5. The ES also identifies a number of potential archaeological sites in the wider area, dating back to medieval times, including a number of small settlements and farmsteads.

As detailed within the ES, archaeological evidence for settlement remains have been discovered in the wider area of Colne Valley and River Pinn, including deposits potentially containing Bronze Age cremation vessels (RUI021) at Copthall Covert, and potential Romano British settlement (RUI014) north of Newyears Green Lane.

Archaeological surveys have been undertaken in the Copthall area, with 34 trenches excavated across the area directly adjacent to Copthall Tunnel (previously the Copthall Cutting). During the surveys, low levels of archaeology were found. Finds, such as pottery, stone tools and building material were limited and largely composed of 17-18th century brick and tile. It is considered that these were probably used for soil improvement.

GLAAS agreed that the external appearance and design of the Copthall Tunnel is acceptable in respect of archaeology.

HIGHWAY ISSUES

The site itself is surrounded by Harvil Road to the west, Breakspear Road South to the east and Newyears Green Lane to the north. As stated above, the reuse on site of a significant amount of material (approximately 1.1 million cubic metres), will result in a substantial reduction in the number of lorries required to take the material away on the local highway network.

10.0 REFERENCE DOCUMENTS

The High Speed Rail (London-West Midlands) Act 2017.

Contact Officer: Karl Dafe

Telephone No: 01895 250230