

19th November 2021

Calvert green tunnel mitigation proposal

Introduction

This document outlines and justifies a green tunnel mitigation solution for High Speed 2 (HS2) as it passes close to Calvert in Buckinghamshire.

Background

Calvert refers to the rural villages of Calvert and Calvert Green in Buckinghamshire which have around 450 properties located in the parishes of Calvert Green, Charndon and Steeple Claydon. Calvert is an environmentally sensitive area equidistant from London and Birmingham and has been severely impacted by HS2 construction and infrastructure.

As a quiet location within the north Buckinghamshire countryside, Calvert Green Parish Council (CGPC) and Charndon Parish Council (CPC) petitioned for a green tunnel past the village in 2013 (petitions 1804 and 1111). Paragraph 10.1 requests a tunnel between Sheephouse Wood (SSSI) and the Infrastructure Maintenance Depot (IMD).

HS2 rejected this tunnel proposal in July 2015 in the Promoter's Response Document (PRD) 1804: *"A tunnel option was discounted at an early stage due to the additional land take and maintenance requirements, including porous portals, increased track separation and fire and ventilation equipment. This would involve further incursion west into the nature reserve at Calvert Jubilee (CJNR), as well as into areas to the south. The construction and maintenance costs would also be higher and there would have been increased construction impacts."*

Calvert typically has ambient daytime noise levels of 30-40dB. However, when HS2 Ltd. carried out its baseline noise assessment, it was done at a time when 140 HGV movements per weekday were present. This skewed the results and was highlighted in the petitions, but was disregarded by HS2 Ltd. Consequently, the increase in noise impacts on the village is not accurate in HS2 Ltd. projections.

Even with these incorrect baseline noise values, it was acknowledged that Calvert would be significantly impacted by operational noise and many properties exceeded the Lowest Observed Adverse Effect Level (LOAEL) – the level above which adverse effects on health and quality of life are detected. Buckinghamshire Council's Environmental Health team has made their concerns known regarding the incorrect baseline noise on several occasions, most recently at an EKFB schedule 17 review meeting at West Street compound on 27th October 2021.

HS2 Ltd. projected those properties in the vicinity of Cotswolds Way, Brackley Lane, Sandy Lane, Werner Terrace, and Brickhill Way would experience adverse noise effects during operation. Several properties fell between SOAEL and LOAEL.

During the petitioning process, CGPC and CPC also challenged the noise impact on Calvert and requested that HS2 revise its noise thresholds covering LOAEL and Significant Observed Adverse Effect Level (SOEL) to reflect the World Health Organisation guidelines including guidelines on peak noise.

Current HS2 proposal

Since the original environmental statement (ES), many significant changes have been made to the HS2 scheme design in the Calvert area. The height of the track has increased by 3m as it passes Calvert - the maximum permissible. The track sub-base composition has changed from ballast to concrete sleepers, track spacing has reduced and significant additional vegetation has been removed between the village and the HS2 trace.

All of these design changes have cumulatively increased the noise (and visual) impacts on Calvert over the original ES projections; despite previously being told HS2 would design to meet ES obligations.

As a consequence of these changes to the detailed design, the recent schedule 17 application for Calvert South (21/03275/HS2) has 48 more Lmax receptor noise impacts. Average noise levels (L_{aeq}) have increased by up to 3dB and we are seeing L_{max} levels of 74dB. This also puts many more properties (as far as 500m from the line) above LOAEL - even though Homeowner Payment Zone payments only extended to 300m.

HS2's main contractor in the area, EKFB has rejected attempts to mitigate the increased noise levels and noise impacts from the schedule 17 application at a community noise meeting on 9th November 2021. Increasing the height of noise barriers from 5m to 6m will effectively reduce noise levels and LOAEL impacts to ES levels, but despite the extent of HS2 destruction to countryside in the area, EKFB state that any increase in noise barrier height will create an unacceptable adverse visual impact.

For a village with such low ambient noise levels (which HS2 Ltd. is not using), the currently proposed design represents substantial additional impact on our community. Ongoing HS2 construction impacts are already affecting parishioners' mental health and wellbeing which is of grave concern.

The inability to plant trees to replace felled trees between the village and HS2 line because of new underground utility diversions means noise barriers will be a greater visual impact to the village under the current application too.

Calvert Green Parish Council proposal and justification

Calvert Green Parish Council, with support from the parish councils of Charndon, Edgcott, Twyford and Steeple Claydon, request that a green tunnel is provided to mitigate HS2 operational noise.

At an online EKFB community noise meeting on 9th November 2021, Colin Cobbing, a noise expert at EKFB, acknowledged that a green tunnel would be a game changer for the community and virtually eliminate HS2 noise impacts on the village.

No tunnel boring is required. A more straightforward cut and cover approach makes for an easier and more cost-effective tunnel solution. The precedent for a green tunnel has already been set in the area because a green bridge is included in the same schedule 17 to the south of the village as bat mitigation.

Since the original petitions and ES, the HS2 scheme design has changed further. Track alignment now deviates away from Calvert Jubilee Nature Reserve (CJNR) and additional land take and vegetation clearance has occurred at CJNR.

Additionally, more ancient woodland has been taken and cleared to the south and a separate Transport and Works Act Order (TWAO) saw the AP4 proposed FCC Environment railhead and siding operation moved over 1km south, thus freeing up much more land with Act limits as the line passes the village.

CGPC's proposal is to link the Calvert green overbridge (78+300.000) with the School Hill overbridge by way of a green tunnel and extend it slightly north past the old Station Master's house (79+200.000) providing a tunnel approximately 900m long.

Based on the land footprint of the proposed green bridge for bat mitigation, and the available land within HS2 limits, there should no longer be a need for additional land outside of Act limits for a green tunnel past Calvert.

Furthermore, EKFB has now constructed a large concrete batching plant alongside the HS2 trace at the School Hill compound, to reduce scheme construction costs and HS2's environmental footprint. This makes construction resources easily accessible for tunnel construction.

Most of the original objections to a green tunnel in Calvert are no longer applicable because of design changes made by HS2 Ltd. These changes to scheme design have effectively undermined the whole petitioning process and HS2 Ltd. must now reconsider a green tunnel. CGPC and CPC feel they have been unfairly treated in this process.

Benefits of a green tunnel

The reduction in HS2 operational noise and number of LOAEL impacts from a green tunnel will virtually eliminate HS2 related noise impacts on the village. This will provide a phenomenal improvement to parishioners' health and wellbeing.

A green tunnel will improve the visual impact of concrete noise barriers (which are currently identified as an issue by EKFB). It also restores the appearance of our rural location while extending mitigation for bats, hairstreak butterflies and other identified and impacted wildlife, including badgers and owls.

Essentially, a green tunnel will reverse the devastation to our once beautiful surroundings and demonstrate that HS2 Ltd. is actually listening to communities and is prepared to do the right thing for both affected wildlife and humans alike.

The cost of tunnel construction will be reduced from the originally considered tunnel because of changes to line height and easy access to concrete and internal construction routes which now exist. The length of tunnel is also reduced from the original request in our petitions.

Conclusion

CGPC acknowledges that the construction of a green tunnel past Calvert will be more expensive than a noise barrier solution, technically more difficult and take longer to complete. However, with the ongoing devastation to our surroundings, construction impacts and significant legacy over and above the HS2 line itself with infrastructure such as the IMD, we feel it is a small price for the benefit it will provide the local community and surrounding countryside.

It's a travesty that the scheme design can change so significantly that original HS2 objections are no longer applicable after requests have been thrown out – surely putting a tunnel back on the table is no different to all the changes that have already been made for the benefit of HS2 Ltd.

It is because of these circumstances and the schedule 17 application only recently being published and available to us that we request justice.

Please consider that being equidistant from London and Birmingham, local residents will gain absolutely no benefit from the HS2 scheme. Whereas a green tunnel gives them something back considering we have had so much taken from us.

Philip L.J. Gaskin
Chairman, Calvert Green Parish Council

20th November 2021

Calvert green tunnel supporting documentation

Exhibit 1 – EKFB Site Clearance at Calvert Jubilee Nature Reserve (CJNR)

This EKFB document was supplied to Calvert Green Parish Council (CGPC) in October 2020 in response to its letter questioning why vegetation clearance was carried out at CJNR over and above the original High Speed Two (HS2) Environmental Statement (ES) and Additional Provision 4 (AP4). It clearly shows the land within the Act and demonstrates sufficient space for a tunnel. Encroachment on CJNR was originally one of the main objections to CGPC's petition for a green tunnel, *"A tunnel option was discounted at an early stage due to the additional land take and maintenance requirements, including porous portals, increased track separation and fire and ventilation equipment. This would involve further incursion west into the nature reserve at Calvert Jubilee (CJNR), as well as into areas to the south. The construction and maintenance costs would also be higher and there would have been increased construction impacts."*

Exhibit 2 – TWAO 1.3 Statement of Aims

Assurance 1234 resulted in a Transport and Works Act Order (TWAO) to relocate FCC Environment Ltd's current rail siding operation to a location around 1km further south from its proposed location in AP4. The relocation of this siding operation frees up a significant amount of land along the HS2 trace (within Act limits) as it passes Calvert. This makes a tunnel much more viable than detailed in the Act.

This document covers the statement of aims. Further documentation on this TWAO is published online at <https://www.gov.uk/government/collections/greatmoor-railway-sidings-transport-and-works-act-order-twao-application>

Exhibit 3 - Assurances

Buckinghamshire Council (formally Aylesbury Vale District Council) received several assurances relating to the Calvert area. **Assurance 1870** requires HS2 to establish regular meetings with the council prior to the detailed design stage *to discuss issues of detailed design in the Calvert and Steeple Claydon area*. During petitioning, CGPC was also told by Mr Timothy Mould QC (Lead Counsel, Department for Transport) that it could raise design points with Buckinghamshire Council through the Schedule 16 process of approving the details of the scheme. (20/01/2016 Oral Evidence transcript of petition AP4:231, paragraph 147).

Despite asking for this opportunity during community liaison meetings over the last year, this opportunity has not been provided to CGPC and, as we understand it, Buckinghamshire Council has had little or no input to this design process.

Prior to the schedule 17 application for Calvert South, the only publicly accessible plans were dated 2013 and 2016. When a Freedom of Information Act was submitted by Twyford Parish Council (FOI-20-3921) for access to more recent plans, it was declined “*under Regulation 12(5)(a) – Public safety – because aspects of its disclosure would facilitate intentional sabotage or disturbance to the concerned location by interested parties*”.

CGPC is extremely disappointed that there was a lack of access to plans and consequently it was only at the application of the schedule 17 that it was able to assess the design and increased impacts of the scheme.

Assurances 1855 and 1873 require HS2 Ltd. to seek to use reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts around the Calvert area

Assurance 1875 acknowledges that The Secretary of State, recognises the particular situation in Calvert and identifies it as a sensitive area.

Assurance 996 highlights details for green bridges in the Calvert area and in particular the benefit to wildlife.

Exhibit 4 – location of concrete batching plant and proposed green tunnel

This document contains a scaled plan which is an extract (drawing ref: 1MC06-CEK-TP-DLO-CS06_CL09-000003) of the recent schedule 17 for Calvert South (21/03275/HS2). It covers a section of the HS2 route as it passes Calvert. CGPC has overlaid the length and position of its proposed green tunnel. This is only indicative and highlights the ends and length of the requested tunnel. It also shows the extent of land along the trace within the Act limits.

The document also highlights the location of EKFB’s concrete batching plant which is now completed and ready for operation. EKFB has presented on the concrete batching plant at several community liaison meetings over the last 18 months. It was communicated that its use is for concrete to facilitate the construction of major HS2 infrastructure in the area such as retaining walls, viaducts and bridges. It is in an ideal location for construction resources for the proposed tunnel, and will significantly reduce the cost of construction compared with previous plans.

EXHIBIT 1

EKFB Site Clearance at Calvert Jubilee Nature Reserve

Site Clearance at Calvert Jubilee

This document provides a narrative to the site clearance activities to the east of the Calvert Jubilee Nature Reserve (CJNR) ahead of main works construction activities, and its relationship to the Environmental Assessment undertaken during the passage of the Hybrid Bill through parliament.

It is intended to brief the local authority, Buckinghamshire Council at officer and member level, BBOWT and the affected Parish Councils – Calvert Green, Charndon, Steeple Claydon and Twyford.

Original Environmental Assessment

The impact of the construction and operation of the railway on the CNJR site was assessed and reported on in the HS2 Environmental Statement (ES) in 2012 and included in the CFA13 report and supporting plans. This was based on a 20m wide (measured from the HS2 Down Line) to the Bill limits as shown in Figure 1.

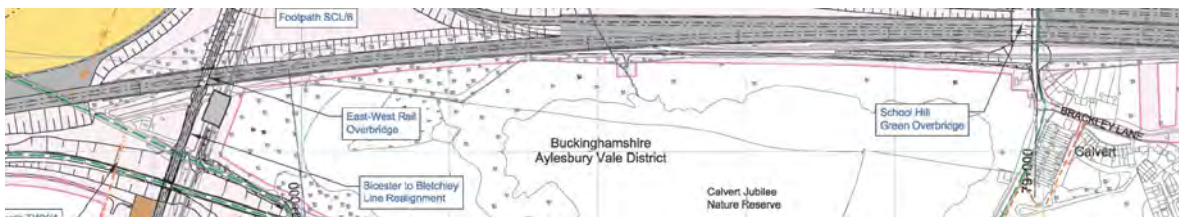


Figure 1 - Environmental Statement Map CT-05-55 CFA13

This anticipated clearance of vegetation to allow construction to the railway including a retained cutting alongside the west edge of the railway, constructed using diaphragm wall techniques. The impact on this work was assessed against the environmental topics in the ES.

The extents of the vegetation clearance resulted in a temporary impact during construction which was to be reinstated post-construction through the replacement of suitable planting and habitat areas.

Additional Provision changes

During the development of the railway during the parliamentary process, it was identified that the retained cutting required additional land to be acquired due to the need for ground anchors to strengthen the diaphragm wall. The Bill limits were extended using Additional Provision 1 ref. AP1-013-017 in 2014 as shown in Figure 2. At

the time of preparing the Additional Provision, it was considered that the anchors would be installed below ground and as such, only required the impact to land quality to be assessed due to the potential pathways between the former brickpit / waste site, and the railway.

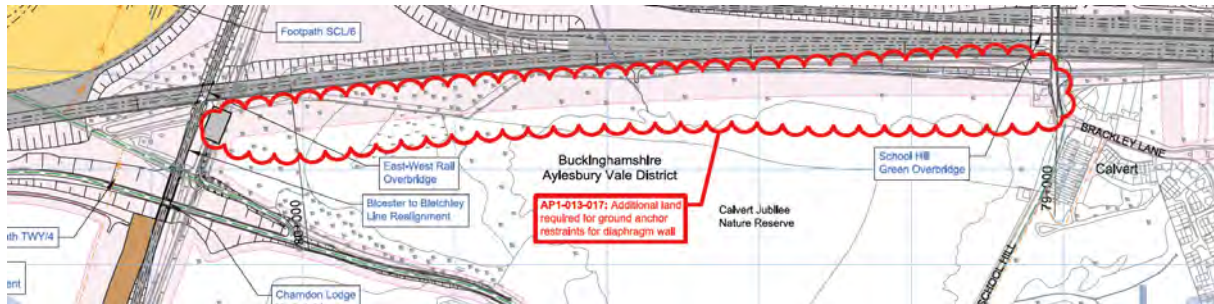


Figure 2 - Additional Provision 1 Plan CT-05-55 CFA13

Vertical alignment changes in the Calvert Cutting

During the development of Scheme Design, it became apparent that the depth of the Calvert Cutting would result in a number of drainage pumping stations being required to manage the groundwater in the area. As a result of design studies, the proposal to raise the vertical alignment of the railway was developed within the Limits of Deviation set out in the HS2 Act. This allowed the retained cutting alongside the CNJR to be up to 3m shallower and avoided the need for the significant diaphragm wall construction, which has been replaced by a slurry cut-off wall to prevent leaching of groundwater from the lake.

Further assessment of the working areas necessary to build the railway earthworks, the East West Rail overbridge and the proposed railway systems compound was carried out and the extents of site clearance have increased.

The extents of the required site clearance have been assessed and compared to the original ES baseline, considering the following ecological features:

- CNJR Local Wildlife Site
- Species; terrestrial invertebrates, amphibians, wintering birds, bats, reptiles and badgers
- Biodiversity net gain

The updated assessment found that no new significant effects have been introduced, and that through appropriate habitat creation, and replacement planting the site clearance will comply with the Environmental Minimum Requirements.

Site Clearance Requirements

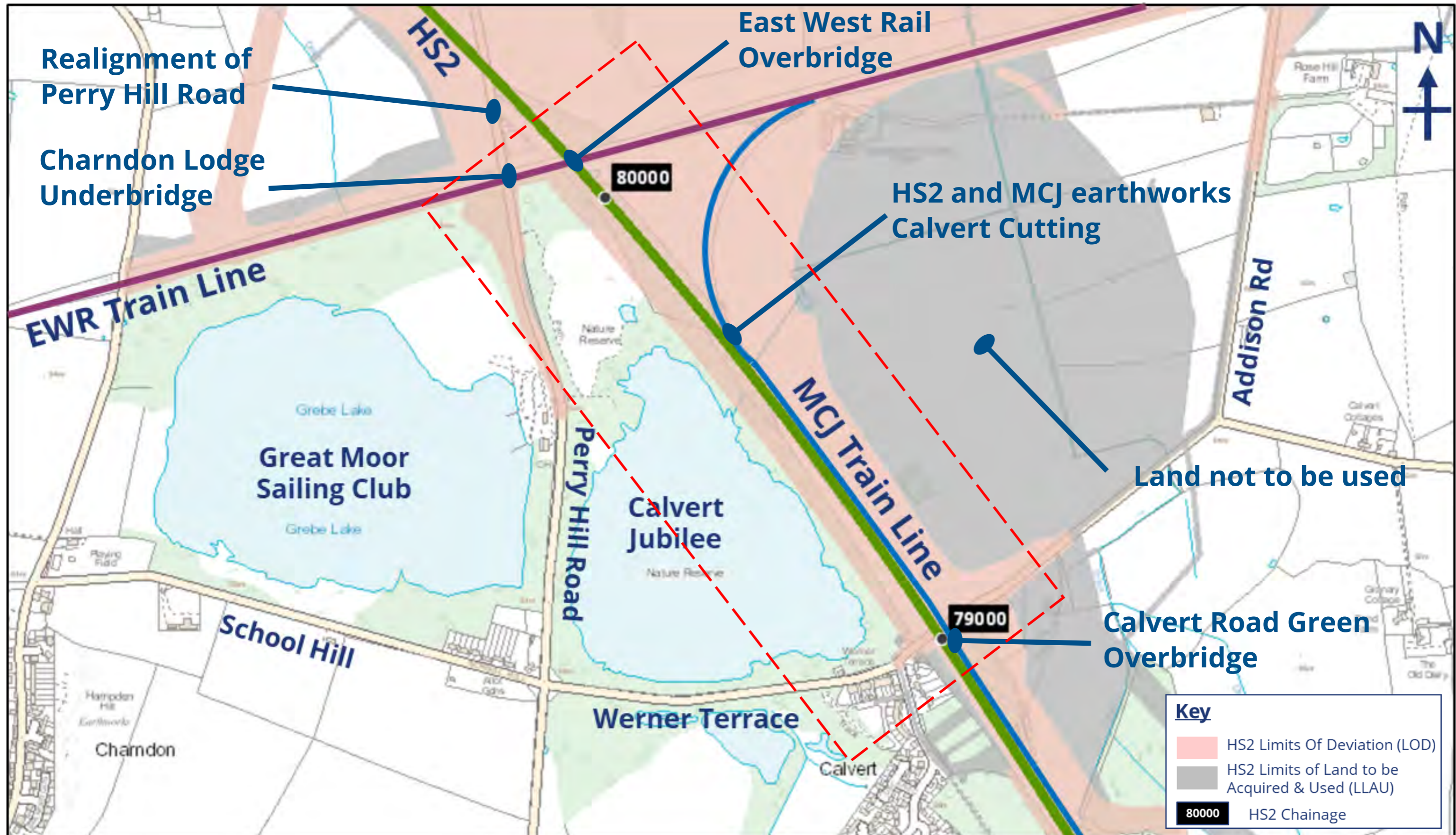
An area to the north east of CNJR has been cleared to allow the construction of the East West Rail Overbridge and future rail systems compound, and future devegetation alongside the Calvert Cutting has been reviewed. The attached plans / sections identify the extents of the working area and site clearance required, including the erection of a suitable security fence.

Future Engagement

There is an opportunity to develop the design of the replacement planting to be targeted to support the specific requirements for local species and EKFB are keen to work with local stakeholders to develop appropriate replacement planting.

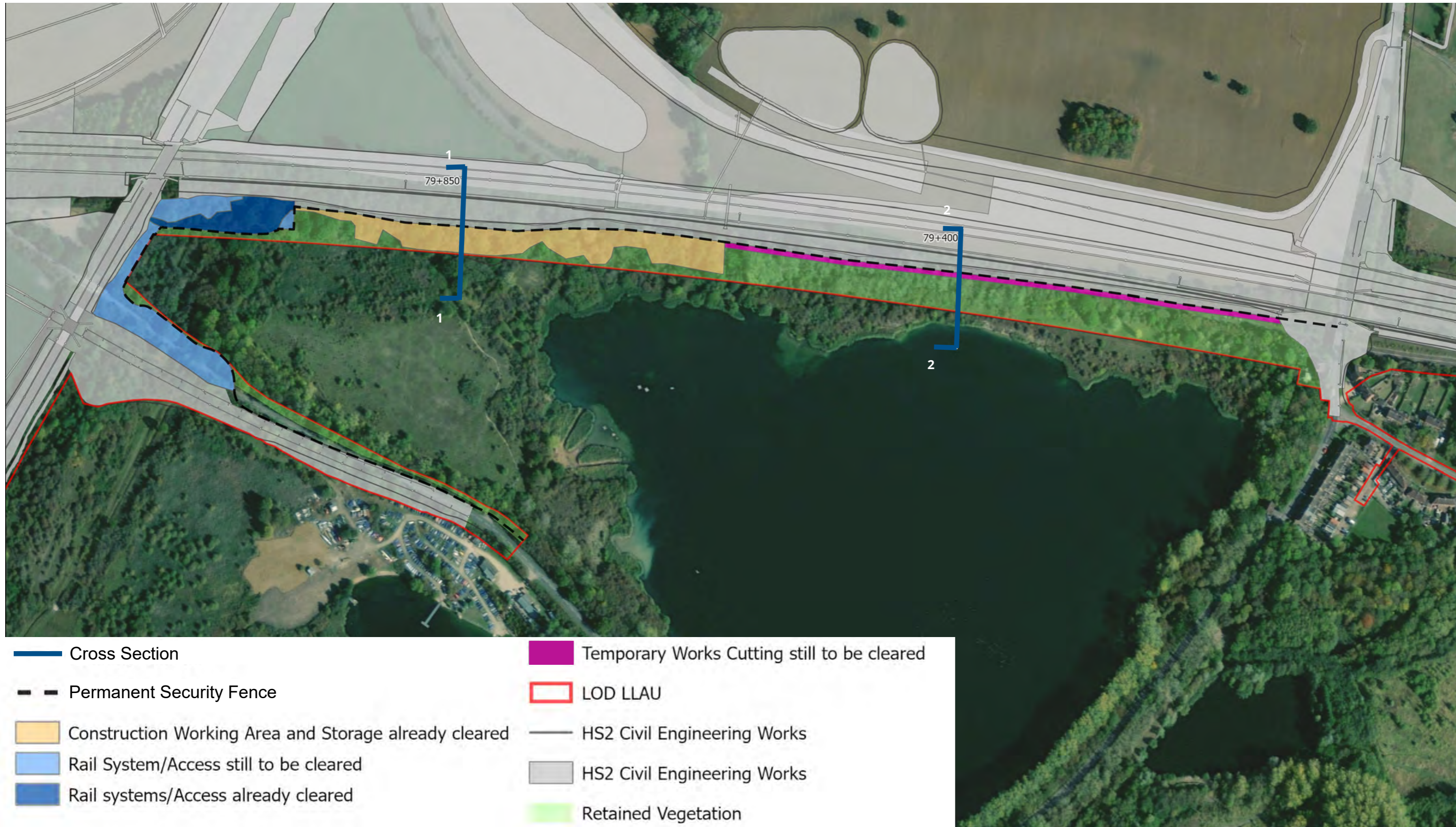
Appendices

- Calvert Jubilee Nature Reserve – Area Plan
- Calvert Jubilee Nature Reserve – Construction Working Areas
- Calvert Jubilee Nature Reserve – Cross Sections Calvert Cutting



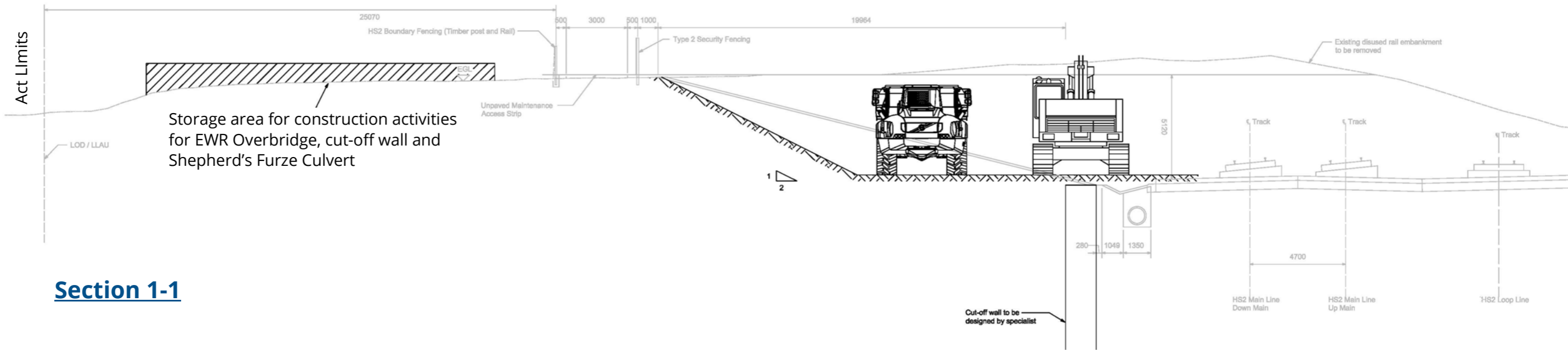
Calvert Jubilee Nature Reserve

Construction Working Areas

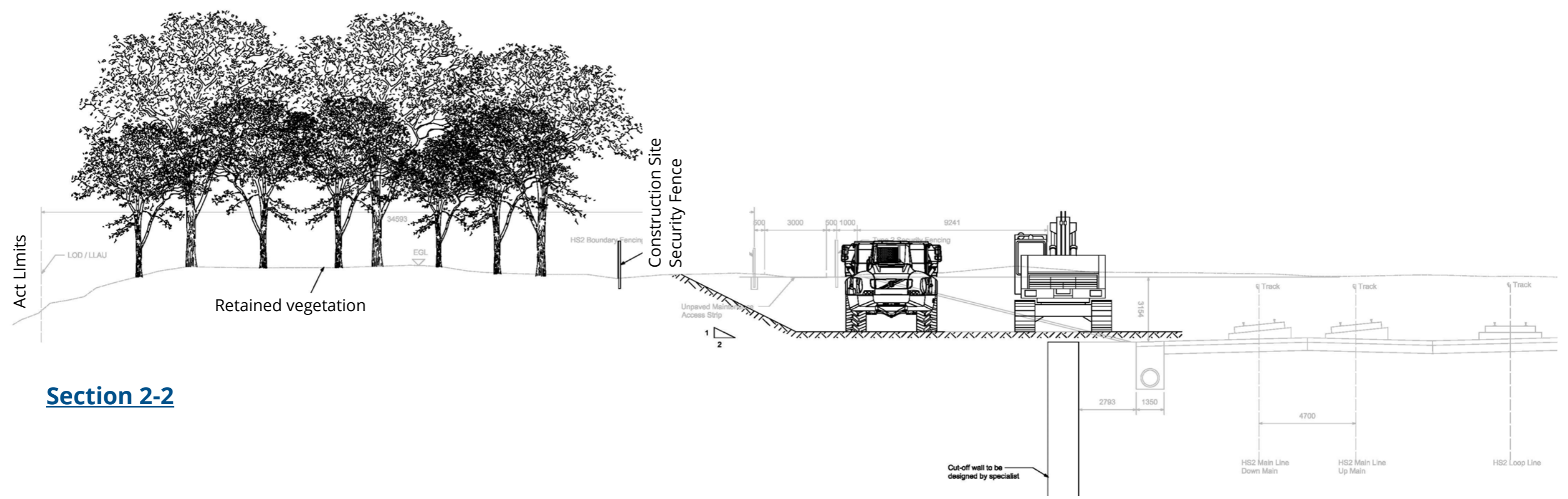


Calvert Jubilee Nature Reserve

Cross Sections Calvert Cutting



Section 1-1



Section 2-2

EXHIBIT 2

FCC Siding Relocation TWAO – Statement of Aims

The High Speed Rail (London – West Midlands) (Greatmoor Railway Sidings Etc.) Order

Draft Order and associated documents

3. Statement of Aims

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1 Introduction

1.1.1 The FCC Waste Services (UK) Ltd waste transfer facility and associated railway sidings (the FCC sidings) are located close to the village of Calvert.

1.1.2 The FCC sidings are used to transfer waste from the Aylesbury Link railway line¹ to:

- an adjacent landfill site (Calvert Landfill), and
- a nearby Energy from Waste facility (Greatmoor EfW facility) also operated by FCC.

The existing waste transfer facility and sidings are situated immediately south-east of the village on the west side of the Aylesbury Link railway line. The Greatmoor EfW facility is situated approximately 2km from the village, also to the west of the Aylesbury Link railway line.

1.1.3 The impact of the proposed HS2 Phase One scheme (HS2 scheme) to be implemented under the High Speed Rail (London to West Midlands) Bill (the Bill) will result in the need to relocate FCC's waste transfer facility and sidings (the FCC sidings) to the eastern side of the Aylesbury Link railway line, and slightly further to the north of their current position. A 'green' accommodation overbridge would be built over the HS2 and Aylesbury Link railways to provide vehicular access between the sidings, the landfill and the Greatmoor EfW facility.

1.1.4 The configuration of the sidings was amended by the Secretary of State through the introduction of Additional Provision 4 (AP4) to the Bill in October 2015. The sidings were extended to the north and a separate accommodation overbridge introduced nearer to the village.

1.1.5 The HS2 scheme for the FCC sidings gave rise to environmental concerns from local residents, FCC and others, who petitioned against the Bill and AP4 on this matter. FCC also petitioned against potential physical and operational constraints it associated with the HS2 design at the proposed northern sidings.

1.1.6 The High Speed Rail (London to West Midlands) Bill House of Commons Select Committee were sympathetic to these considerations. As a result, HS2 Ltd has agreed to promote a Transport and Works Act Order (TWAO), under the Transport and Works Act 1992. This will re-provide the sidings to the south of Sheephouse Wood at Greatmoor (approximately 1.8 km from Calvert) and opposite the Greatmoor EfW facility.

¹ Also known as the Marylebone to Claydon Junction Line (MCJ).

2 Background

- 2.1.1 Local residents of Calvert and Calvert Green, Buckinghamshire County Council, Aylesbury Vale District Council, Calvert Green Parish Council, FCC Waste Services (UK) Ltd and John Bercow MP were among those who petitioned against the HS2 scheme contained in the Bill to relocate the FCC sidings at Calvert.
- 2.1.2 In its petition against the Bill and against AP₄, Buckinghamshire County Council petitioned for the relocation of the replacement sidings to the southern location at Greatmoor which is the subject of this application for a TWAO. In its original petition (0520), Buckinghamshire County Council stated:
- ‘Your Petitioners are greatly concerned about the potential community impacts within Calvert. These concerns would be mitigated to some degree by the relocation of the proposed rail sidings serving the energy from waste plant to the south of Sheeppouse Wood, and your Petitioners ask your honourable House to amend the Bill so as to make provision for that, taking into account the ecological mitigation that will be provided for the bat population and not compromising the functionality of other proposed mitigation measures proposed by your Petitioners’.
- 2.1.3 In its AP₄ Petition (0262), Buckinghamshire reiterated its concern that the AP₄ northern sidings would ‘detrimentally impact the community of Calvert’, as well as having environmental effects. As the petition states:
- ‘Your Petitioner, supported by Parish Councils in the area and the District Council asks that the Promoter relocates the sidings to the south of Sheeppouse Wood on land owned by FCC and located closer to the company’s waste management facilities. This site would alleviate the impact on the community which is set to be badly affected by the proposed scheme’.
- 2.1.4 In seeking to relocate to the sidings to the south of Sheeppouse Wood, the petitioners pressed for a solution which would alleviate the concerns of the Calvert residents regarding noise and other effects of the HS2 scheme for the FCC sidings.
- 2.1.5 A primary consideration would be to ensure environmental protections could be accommodated at the alternative site, especially in relation to protected bat species (Bechstein’s and other bat populations) resident in the surrounding woodland.
- 2.1.6 On 28 October 2015 and 25 November 2015, FCC appeared before the House of Commons Select Committee to present its petition to the Committee, requesting that the proposed sidings be relocated to the south and not constructed as proposed pursuant to AP₄. On 09 December the Promoter offered assurances to FCC, confirming that the Secretary of State would require the nominated undertaker to secure a TWAO to authorise the construction of replacement sidings to the south of Calvert at Greatmoor in place of the scheme proposed under AP₄.
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- 2.1.7 HS2 Ltd is promoting an application for a TWAO to construct the replacement sidings. If the Order is made by the Secretary of State for Transport, this will result in the removal of the provisions contained within the Bill which sought to authorise the northern sidings under AP₄. In doing so, HS2 Ltd recognises the benefits of the TWAO scheme over the AP₄ scheme in addressing the petitioners' concerns. The Select Committee expressed a strong preference for the southern site to be the location for the relocated sidings. HS2 Ltd considers that the proposed TWAO will deliver the outcome requested by the Select Committee, addressing the concerns set out in paragraphs 2.1.1 to 2.1.4 above.
- 2.1.8 If consented by the Secretary of State, the proposed TWAO scheme will only be progressed as part of the construction of the HS2 scheme, and not as a stand-alone scheme.

2.2 Select Committee Report

- 2.2.1 In its report on the House of Commons phase of the High Speed Rail (London to West Midlands) Bill,² the Select Committee endorsed the Promoter's suggestion of a relocation to the south through a TWAO as follows:

'We said that we wanted to see the alternative, southern site, brought to fruition if possible. We wanted the Promoter to concentrate its mind on how to accommodate the protected bat species through alternative planting, connectivity and other mitigation.

The Promoter suggested promotion of a Transport and Works Act Order (or appropriate planning permissions) to seek to accomplish the same outcome, subject to environmental consent being forthcoming. It has agreed to fund that promotion, subject to internal departmental review.

There are clear advantages to local residents and to FCC for the sidings to be located at the identified southern site, without difficulty for the rail project per se. We recognise the contributions made on all sides in achieving agreements and assurances that have come close to resolving all issues or to agreeing how remaining points or future problems will be decided.

We are grateful to the petitioners and to the promoters for their clear response to the request we made for more to be agreed. They have made sensible suggestions on how this report could deal with remaining points. We conclude that their cooperation in discussions on specific problems are likely to make further or complete progress before consideration in the Lords. While restating our strong preference for the southern site, we do not try to impose, or to anticipate what the parties can best design together. Reasonable requests by

² The House of Commons Select Committee on the High Speed Rail (London to West Midlands Bill), *Second Special Report of Session, 2015-16* (22 February 2016), pp.34—35, paragraphs 98-101.

FCC should be compatible with the Promoter's proportionate concern for the public purse. We emphasise that the potential benefits of the southern location to the people of Calvert should be fully taken into account. The Claydon Estate owns other land in this area of the line. It sought reductions in land take and greater connectivity of woodland. We hope these can be achieved'.

2.3 The Promoter's Response to the House of Commons Select Committee Report

- 2.3.1 The Promoter responded to the Report acknowledging the view of the Select Committee and the concerns of FCC Waste (UK) Ltd, local residents, Buckinghamshire County Council and Aylesbury Vale District Council regarding the AP₄ proposals, and the Promoter has accordingly developed a TWAO scheme for the southern sidings.
- 2.3.2 The Promoter has worked closely with, and has taken into account, FCC's views of the sidings design. The views of the people of Calvert have also been taken into consideration. Furthermore, the specific ecological issues raised regarding bat populations are being taken on board through proposals for ways of working (avoidance of operations during bat flight times) which take bat activity into account, and which are being agreed in consultation with Natural England.
- 2.3.3 FCC has accepted that operational arrangements at the southern sidings will need to avoid impacts on bats. An operational timetable has been developed in discussion with Natural England which restricts operational activities during the times of the year when bats are active. This will include unloading and loading of trains and associated vehicle movements.
- 2.3.4 The Promoter's response to the Select Committee's Second Special Report of Session 2015-16 also set out that, 'in designing the sidings, the Promoter will seek to introduce further connectivity of woodland and, where reasonably practicable, reduction in land acquisition'.³

3 Project description

- 3.1.1 The proposed Greatmoor Railway Sidings will be located on land predominantly owned by FCC, to the east of the existing Aylesbury Link railway line to the south of Sheephouse Wood, opposite the Greatmoor EfW facility.
- 3.1.2 The proposed sidings have been designed in consultation with FCC to ensure they will have an equivalent operational capability to the existing sidings (modified to suit the new geography and operating requirements). Network Rail, Buckinghamshire County

³ Department for Transport, *House of Commons High Speed Rail (London-West Midlands) Bill Select Committee - Promoter's Response to the Select Committee's Second Special Report of Session 2015-16* (March, 2016), page 8, paragraph 21.

Council, Aylesbury Vale District Council, local residents and others have also been consulted.

- 3.1.3 The sidings will comprise two reception sidings, each with 440m stabling lengths, and two pairs of operational sidings, each with 440m stabling lengths and with their own 35m head shunt to provide locomotive run-around. One pair will be dedicated to unloading and loading waste containers (with a rail mounted gantry crane) and the other pair dedicated to offloading spoil wagons (serviced by two mobile grabs). The sidings will be connected to the mainline (Network Rail's Aylesbury Link Railway line) at either end of the reception sidings. The Proposed Scheme is also designed to accommodate the proposed East-West Rail scheme, which is set to upgrade both the Aylesbury Link Line and the Bicester to Bletchley line to facilitate passenger and freight services.
- 3.1.4 A 'green' accommodation overbridge, proposed as part of the HS2 scheme, will be widened to include a roadway to provide vehicular access between the sidings and the Calvert Landfill and Greatmoor EfW facility on the opposite side of the railway. The span of this 'green' overbridge and one located further to the south will also need to be increased to clear the additional track associated with the sidings.
- 3.1.5 The operational sidings will be serviced via a concrete service road, comprising one storage lane and five vehicular access lanes.

3.2 Woodland Connectivity

- 3.2.1 Extensive mitigation planting will be provided as part of the TWAO scheme, connecting several areas of ancient woodland to the north and south of the Greatmoor Railway Sidings. Two 'green' accommodation overbridges are proposed as part of the ecological mitigation for the HS2 scheme. These overbridges are designed to preserve bat flight paths and to provide safe passage of other wildlife and habitat linkages.

4 Scheme benefits

- 4.1.1 In summary, the Greatmoor Railway Sidings will provide replacement sidings for FCC Waste Services (UK) Ltd in a way which mitigates their impact on:
- **FCC Waste Services (UK) Ltd's operations** - in respect of removing the operational constraints FCC had associated with the HS2 scheme at the northern sidings;
 - **Residents of Calvert and Calvert Green** - (some of whom were concerned about increased noise and visual effects from the relocated sidings as proposed under the Bill);

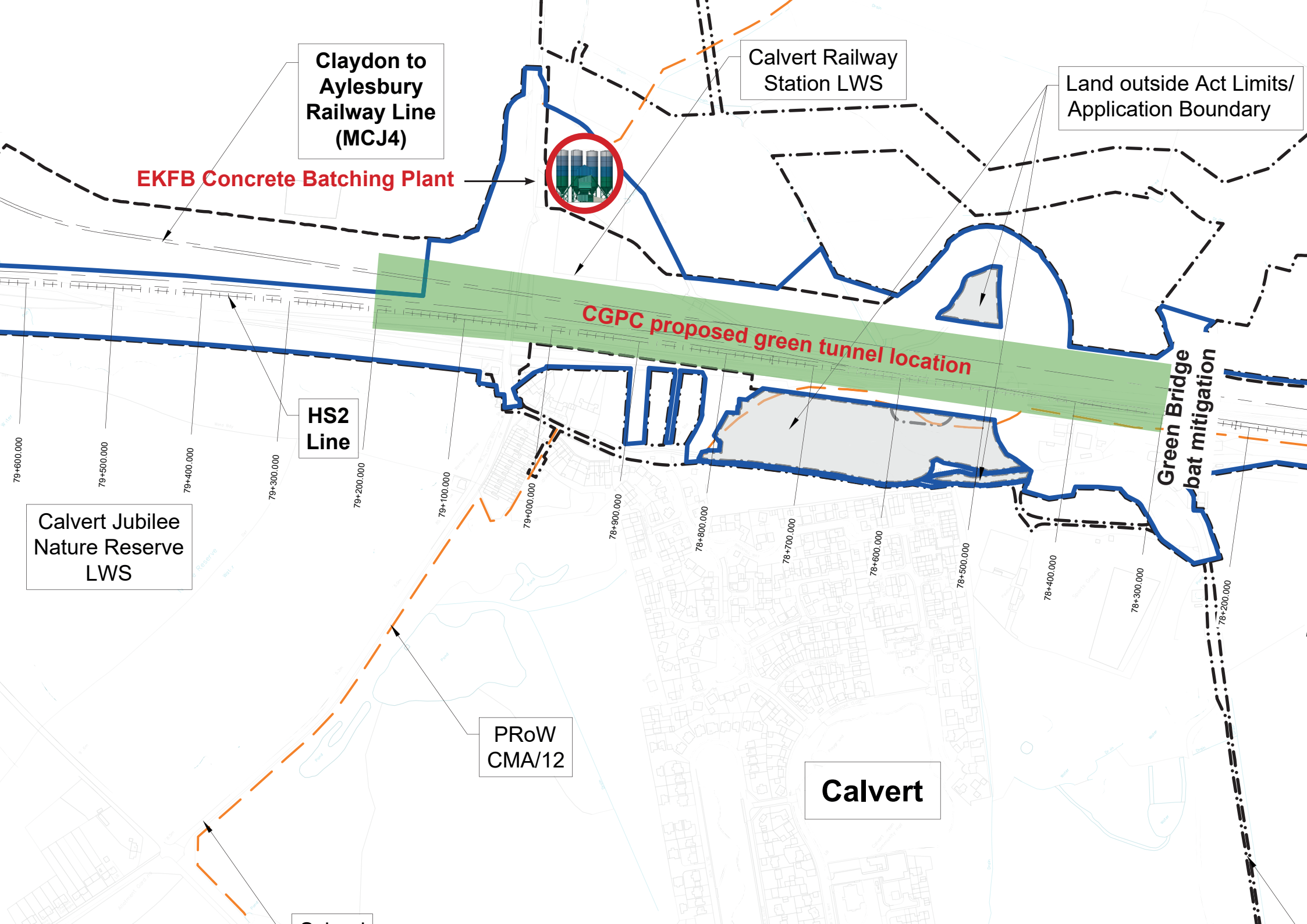
- **Bechstein's and other bat populations** - which occupy the area in and around the proposed Greatmoor Railway Sidings due to the mitigation provided and restricted hours of operation that will minimise disturbance to bats during periods of activity;
- **Mitigation planting** – woodland planting will provide immediate and longer term benefits through provision of improved connectivity of ancient woodland and 'green' overbridges across the proposed HS2 and Aylesbury Link railway lines which preserve existing bat flight paths;
- **East West Rail Phase 2 (EWR2)** - there will be less interaction between EWR2 passenger services as FCC freight trains arriving from the Aylesbury direction will be able to run-around within the sidings without needing to access the Claydon Freight Loop on the Bicester to Bletchley railway line;
- **Road transport** - locating the sidings close to the Greatmoor EfW facility will provide future operational benefits should it become viable to deliver more waste to the facility by rail (currently much of the waste comes in by road). FCC has a requirement to seek opportunity to increase the proportion of waste inputs delivered by rail.

EXHIBIT 3
Assurances

1855	HoC/0520	Buckinghamshire County Council	Assurance	10/02/2016	Mitigation package for Calvert - communication and further funding	County of Buckinghamshire	Letter from Roger Hargreaves (HS2 Ltd) to Mr Martin Tett (Buckinghamshire County Council), 11 Mitigation package for Calvert, paragraph 4-7	<p>4. In line with the requirements specified in the General Principles of the Environmental Minimum Requirements, the Secretary of State will require the nominated undertaker to seek to use reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts around the Calvert area, in so far as these mitigation measures do not add unreasonable costs to the project or unreasonable delays to the construction programme. Any proposals for further mitigation which may be incorporated into the detailed design of the Proposed Scheme in the Calvert area will be discussed at the regular liaison meeting with the relevant local authorities.</p> <p>5. By prior agreement between the nominated undertaker and Aylesbury Vale District Council, relevant third parties may be invited to the regular meeting, including where appropriate Buckinghamshire County Council and the Promoter of the East West Rail scheme, in order that a holistic approach to environmental mitigation may be maintained.</p> <p>6. The Secretary of State, recognising the particular situation at this location with the introduction of major infrastructure (the Infrastructure Maintenance Depot) into an environmentally sensitive area, will make available the sum of £1m (to be paid within 90 days of Royal Assent) to Aylesbury Vale District Council to support further local environmental mitigation which is over and beyond that proposed in the Environmental Statement or related detailed design subject to Aylesbury Vale District Council confirming and agreeing such proposals with the Promoter. Proposals for this additional mitigation will be discussed further at the Community Liaison Group, including with the representatives of Aylesbury Vale District Council, Buckinghamshire County Council, and the four parish councils of Steeple Claydon, Calvert Green, Chamdon and Twyford attending that meeting, as mentioned below.</p> <p>7. In the event that the Bill gets Royal Assent but HS2 is not then proceeded with, Aylesbury Vale District Council will repay the funds, plus interest accrued, but less reasonable expenditure already incurred, to the nominated undertaker.</p>
1870	HoC/0521, AP4/0269, AP5/0020	Aylesbury Vale District Council	Assurance	11/02/2016	Mitigation Package for Calvert	Calvert and Steeple Claydon	Letter from Roger Hargreaves (HS2 Ltd) to Neil Black (Aylesbury Vale District Council), paragraph 7.1	The Secretary of State will require the nominated undertaker to, as the detailed design stage approaches, establish a regular meeting with Aylesbury Vale District Council and Buckinghamshire County Council, to discuss issues of detailed design in the Calvert and Steeple Claydon area (including at and around the Infrastructure Maintenance Depot), consistent with the General Principles of the Environmental Minimum Requirements, and HS2 Information Paper G6, Design Development - Detailed Design and the Role of Planning Authorities.
1873	HoC/0521, AP4/0269, AP5/0020	Aylesbury Vale District Council	Assurance	11/02/2016	Mitigation Package for Calvert	Calvert and Steeple Claydon	Letter from Roger Hargreaves (HS2 Ltd) to Neil Black (Aylesbury Vale District Council), paragraph 7.4	In line with the requirements specified in the General Principles of the Environmental Minimum Requirements, the Secretary of State will require the nominated undertaker to seek to use reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts around the Calvert area, in so far as these mitigation measures do not add unreasonable costs to the project or unreasonable delays to the construction programme. Any proposals for further mitigation which may be incorporated into the detailed design of the Proposed Scheme in the Calvert area will be discussed at the regular liaison meeting with the relevant local authorities.
1875	HoC/0521, AP4/0269, AP5/0020	Aylesbury Vale District Council	Assurance	11/02/2016	Mitigation Package for Calvert	Calvert and Steeple Claydon	Letter from Roger Hargreaves (HS2 Ltd) to Neil Black (Aylesbury Vale District Council), paragraphs 7.6 - 7.7	<p>The Secretary of State, recognising the particular situation at this location with the introduction of major infrastructure (the Infrastructure Maintenance Depot) into an environmentally sensitive area, will make available the sum of £1m (to be paid within 90 days of Royal Assent) to Aylesbury Vale District Council to support further local environmental mitigation which is over and beyond that proposed in the Environmental Statement or related detailed design subject to Aylesbury Vale District Council confirming and agreeing such proposals with the Promoter. Proposals for this additional mitigation will be discussed further at the Community Liaison Group, including with the representatives of Aylesbury Vale District Council, Buckinghamshire County Council, and the four parish councils of Steeple Claydon, Calvert Green, Chamdon and Twyford attending that meeting, as mentioned below.</p> <p>In the event that the Bill gets Royal Assent but HS2 is not then proceeded with, Aylesbury Vale District Council will repay the funds, plus interest accrued, but less reasonable expenditure already incurred, to the nominated undertaker.</p>
1880	HoC/0521, AP4/0269, AP5/0020	Aylesbury Vale District Council	Assurance	11/02/2016	Mitigation Package for Calvert	Calvert and Steeple Claydon	Letter from Roger Hargreaves (HS2 Ltd) to Neil Black (Aylesbury Vale District Council), paragraph 7.12	The Secretary of State will require the nominated undertaker at community liaison meetings to regularly consider environmental mitigation issues and construction matters in relation to the Infrastructure Maintenance Depot.
996	HoC/0520	Buckinghamshire County Council	Assurance	09/10/2015	Ecological specifications on Calvert green bridges	Buckinghamshire	Letter from Roger Hargreaves (HS2 Ltd) to Jackie Copcutt (Buckinghamshire CC)	<p>1. The Secretary of State will require the nominated undertaker to design the green bridges within the Bernwood Forest area in Buckinghamshire such that these bridges</p> <p>(i) are specifically designed to maintain favourable conservation status of important populations of rare and vulnerable bats;</p> <p>(ii) have a vegetated zone with a minimum width of 12m across each bridge. This vegetated zone would typically comprise a wide double hedgerow with a gap of at least 3m between the two hedge lines designed to maintain connectivity for bats; and</p> <p>(iii) would include blackthorn to provide connectivity for black hairstreak notwithstanding any decision taken by the local planning authority under powers conferred to it under Schedule 17 to the Bill.</p>

EXHIBIT 4

Concrete Batching Plant and Proposed Tunnel Location



Claydon to
Aylesbury
Railway Line
(MCJ4)

Calvert Railway
Station LWS

Land outside Act Limits/
Application Boundary

EKFB Concrete Batching Plant



CGPC proposed green tunnel location

HS2
Line

Green Bridge
bat mitigation

Calvert Jubilee
Nature Reserve
LWS

PRoW
CMA/12

Calvert

79+600,000
79+500,000
79+400,000
79+300,000
79+200,000
79+100,000
79+000,000
78+900,000
78+800,000
78+700,000
78+600,000
78+500,000
78+400,000
78+300,000
78+200,000