

High Speed Rail (London – West Midlands) Act 2017

HS2 Ltd

Warwick District Council

B4113 Stoneleigh Road Green Overbridge

Schedule 17 Plans and Specifications Written Statement for Information

HS2 Consents ID: WAC.PS.10039

Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067 C01

Contents

1	Introduction		3
	1.1	Background Information	3
	1.2	Terms of Reference	
	1.3	Introduction to High Speed 2	4
	1.4	High Speed Rail (London – West Midlands) Act 2017	4
	1.5	Code of Construction Practice	5
	1.6	Schedule 17 Statutory Guidance	5
	1.7	Structure of Written Statement	6
2	Site Location and Characteristics		7
	2.1	Site Location	7
	2.2	Surrounding Highway Network	9
3	Desc	ription of the Works	10
	3.1	Introduction	10
	3.2	Works for Approval	10
	3.3	Indicative Mitigation	16
	3.4	Construction Method	25
	3.5		26
	3.6	Environmental Management During Construction	27
4	Design Approach and Rationale		30
	4.1	Introduction	30
	4.2	Design Rationale	30
	4.3	Design Constraints	30
	4.4	Options Considered	32
	4.5	Selected Option	32
	4.6	Consideration Against the Relevant Ground for Refusal in the	
	4.7	Schedule 17	33
	4.7	Conclusion	38
5	Pre-s	Pre-submission Consultation	
6	Cons	Construction Programme	
7	Other	Other Consents	

List of Tables

Table 1: Schedule 17 Address Details and Description of Works	3
Table 2: Schedule 17 Plans and Specifications Submission Details	5
Table 3: Structures - Assessment of Proposed Development Against Possible Gro	ounds for
Refusal	34
Table 4: Earthworks - Assessment of Proposed Development Against Possible G	rounds for
Refusal	37
Table 5: Fences and Walls - Assessment of Proposed Development Against Poss	sible
Grounds for Refusal	37
Table 6: Artificial Lighting Equipment - Assessment of Proposed Development Ag	ainst
Possible Grounds for Refusal	38
Table 7: Pre-submission Consultation with key stakeholders	39
Table 8: Comments Raised by WDC and WCC During the Pre-Application Period	and the
Applicant's Responses Raised	40
Table 9: Proposed Programme and Sequence of Works	54
Table 10: Other Consent Requirements	55
Liet of Eigures	

List of Figures

Figure 1: Extract from Replacement Sheet 2-109	11
Figure 2: Extract of Map from Environmental Statement	32

Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067 Rev: C01

1 Introduction

1.1 Background Information

Table 1: Schedule 17 Address Details and Description of Works

Table 1: Schedule 17 Address Details and Description of Works			
Site	Details		
Scheme	High Speed Two		
Applicant	High Speed Two (HS2) Limited		
Applicant Address	c/o Agent: Balfour Beatty Vinci (BBV) IM House South Drive Coleshill Manor Coleshill West Midlands B46 1DF		
Site Address	The works are located at; X (Easting): 432941, Y (Northing): 271238 and X (Easting): 432989 and Y (Northing): 271320. The site is located approximately 1.6km to the south of Stoneleigh.		
Description	Plans and Specifications submission under Schedule 17 to the High Speed Rail (London – West Midlands) Act 2017 for works comprising: • A new single span overbridge that will carry the realigned B4113 Stoneleigh Road and realigned Footpath W171 over the HS2 railway; • Earthworks associated with the cutting and embankments and earthworks to facilitate the realignment of B4113 Stoneleigh Road, Footpath W171 and Stareton Lane as well as maintenance access strips; • Vehicle restraint system; • Lighting columns; • Kerbs forming the road layout shown on the GA Plan; • Two land drainage ditches with headwalls and wingwalls; and • Safety guard rails on pile caps.		

1.2 Terms of Reference

- 1.2.1 This Written Statement is compiled in accordance with the High Speed Two (HS2) Phase 1 Planning Memorandum and Planning Forum Notes (PFNs) as required by the planning regime established under Schedule 17 of the High Speed Rail (London West Midlands) Act 2017 ('the Act').
- 1.2.2 This statement provides Warwick District Council with information to assist with the determination of the Plans and Specifications submission under Schedule 17, in relation to the above description of works.

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

1.3 Introduction to High Speed 2

- 1.3.1 HS2 is a new high speed railway network that will connect major cities in Britain. It will bring significant benefits for inter-urban rail travellers through increased capacity and improved connectivity between London, the Midlands and the North. It will release capacity on the existing rail network and so provide opportunities to improve existing commuter, regional passenger and freight services.
- 1.3.2 Phase One of HS2 will provide a dedicated high speed rail service between London, Birmingham and the West Midlands. It will extend for approximately 230km (143 miles). Just north of Lichfield, high speed trains will join the West Coast Main Line for journeys to and from Manchester, the North West and Scotland.
- 1.3.3 For further information on HS2 and the route through Warwick District Council please refer to the Planning Context Report for Warwick District Council, deposited with the Council by HS2 Ltd.

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

- 1.4.1 The Act provides powers for the construction and operation of Phase 1 of High Speed Two. HS2 Ltd is the nominated undertaker in relation to the works subject to this Plans and Specifications submission.
- 1.4.2 Section 20 to the Act grants deemed planning permission for the works authorised by it, subject to the conditions set out in Schedule 17. Schedule 17 includes conditions requiring the following matters to be approved or agreed by the relevant Local Planning Authority (LPA).
 - Construction arrangements (including large goods vehicle routes);
 - Plans and specifications;
 - Bringing into use requests; and
 - Site restoration schemes.
- 1.4.3 This is therefore a different planning regime to that which usually applies in England (i.e. the Town and Country Planning Act) and is different in terms of the nature of submissions and the issues that the LPAs can have regard to, in determining requests for approval.
- 1.4.4 Schedule 17 of the Act sets out the grounds on which the LPA may impose conditions on approvals, or refuse requests for approval.

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

Table 2: Schedule 17 Plans and Specifications Submission Details

Site	Details
Plans and Specifications (permanent works)	 A new single span overbridge that will carry the realigned B4113 Stoneleigh Road and realigned Footpath W171 over the HS2 railway; Earthworks associated with the cutting and embankments and earthworks to facilitate the realignment of B4113 Stoneleigh Road, Footpath W171 and Stareton Lane as well as maintenance access strips; Vehicle restraint system; Lighting columns; Kerbs forming the road layout shown on the GA Plan; Two land drainage ditches with headwalls and wingwalls; and Safety guard rails on pile caps.

1.4.6 The works to which this application relates, and the cumulative impact of the works in conjunction with other HS2 development, have been assessed and are compliant with paragraph 1.1.3 (bullet point 2) of the HS2 Phase 1 Environmental Minimum Requirements General Principles¹.

1.5 Code of Construction Practice

- 1.5.1 HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). The EMRs include the HS2 Code of Construction Practice (CoCP).
- 1.5.2 The works subject to this request for approval of Plans and Specifications will be undertaken in accordance with the Code of Construction Practice, and with the Class Approval issued by the Secretary of State (March 2017)².

1.6 Schedule 17 Statutory Guidance

1.6.1 The Schedule 17 Statutory Guidance issued by the Secretary of State (April 2021)³ provides guidance to all planning authorities determining requests for approval under Schedule 17 to the Act. Paragraph 20 of the Statutory Guidance states that planning authorities should not, through the exercise of Schedule 17, seek to modify controls

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/618074/General_principles.pdf

² https://www.gov.uk/government/publications/high-speed-rail-london-west-midlands-act-2017-class-approval

³ https://www.gov.uk/government/publications/high-speed-rail-london-to-west-midlands-act-2017-schedule-17-statutory-guidance/high-speed-rail-london-west-midlands-act-2017-schedule-17-statutory-guidance

already in place such as the Environmental Minimum Requirements, other controls in the Act such as those under Schedule 4 or 33, or existing legislation.

- 1.6.2 As set out in the Statutory Guidance, Local Planning Authorities may request additional information they consider necessary to make a decision on the application. Planning authorities must only address relevant considerations when making a determination under Schedule 17. Therefore, any information requested should be relevant to the limited specified grounds of refusal. Annex 1 to PFN 17, Information for Decision Making, sets out further guidance on what information could be required to make Schedule 17 decisions. The need for further information should be identified during the pre-application stage.
- 1.6.3 When making decisions, Local Planning Authorities should have regard to the grounds set out in paragraphs 2(5) and (6) of Schedule 17. LPAs should clearly identify both the planning matter and the specific ground if proposing a conditional approval, or refusal of an application. The planning authority should also explain and give reasons as to why and how the design or external appearance ought to be modified relevant to the grounds.

1.7 Structure of Written Statement

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

2 Site Location and Characteristics

2.1 Site Location

- 2.1.1 Stoneleigh Road Green Overbridge (also referred to as 'the overbridge' throughout this Written Statement) is located approximately 5.0km north of Royal Leamington Spa, 7.58km north east of Warwick, 3.78km south east of Kenilworth and approximately 7.72km south of Coventry. Birmingham is situated to the north west, with Birmingham International Station located approximately 19.0km to the north west of the overbridge.
- 2.1.2 Stoneleigh is located around 1.6km to the north of the overbridge, with Stareton located 1.33km to the north east. Stonehouse Farm lies approximately 0.95km to the south east and Claremount House is located approximately 0.62km to the south west of the overbridge. The overbridge passes along the south easterly edge of a business park named Stoneleigh Park. Stoneleigh Park is made up of a series of internal roads crossing amenity grassland with occasional trees. There are a number of residential properties in close proximity to the works to the east along Stareton Lane including Rose Cottage, Stareton House and Park Farm House.
- 2.1.3 The area is rural in nature with the existing use of the site being a road (the B4113 Stoneleigh Road) that is surrounded by fields and woodland adjacent to the B4113 Stoneleigh Road as well as Stoneleigh Park.
- 2.1.4 A number of ancient woodlands lie in the vicinity of the works including Decoy Spinney 0.54km to the south, Motslowhill Spinney 0.70km to the north, Bericote Woods 0.74km to the south west, Black Spinney LWS 1.46km to the north east and Nr Stoneleigh Wood 1.41km to the south west.
- 2.1.5 The Grove is also located to the south west of the overbridge. This is an area of woodland located south of the River Avon.
- 2.1.6 One non-statutory designated site, the River Avon Local Wildlife Site (LWS), lies within the site boundary. LWS are identified and selected for their local nature conservation value and protect threatened species and habitats acting as buffers, stepping stone and corridors between nationally designated wildlife sites.
- 2.1.7 There are also a number of potential Local Wildlife Sites (pLWS) and ecosites within the site boundary and the vicinity of the site boundary. A small portion of 'Hares Parlour and Brick Kiln Spinney' pLWS sits within the site boundary and within the vicinity to the south west. 'John Eastwood Farm (Stone House Farm Pool)' Ecosite (Reference: 45.1/37) to the south west and 'Stareton' Ecosite (Reference: 235/37) and potential LWS (pLWS) to the north east of the overbridge both partially sit within the site boundary and within the

vicinity of the site boundary. Ecosites are places designated by Warwick District Council that are of particular importance for nature conservation, though they are not formally designated sites.

- 2.1.8 The land within the site boundary is not subject to any additional ecological or historical designations. The site boundary is within Flood Zone 1 and therefore is at a low risk of flooding. Land classified as Flood Zone 2 and Flood Zone 3 is located in close proximity to the overbridge, to the north, along the River Avon.
- 2.1.9 There is one designated heritage asset situated within the site boundary of Stoneleigh Road Green Overbridge and the Stoneleigh Road Realignment. This is the Grade II* Registered Park and Garden Stoneleigh Abbey (STN012).
- 2.1.10 There is one non-designated heritage asset situated within the site boundary of the Stoneleigh Road Green Overbridge and the road realignment, which constitutes the Decoy Wood Field Boundaries (STN100).
- 2.1.11 There are three designated heritage assets situated within the vicinity of the Stoneleigh Road Green Overbridge and Stoneleigh Road Realignment. These are:
 - The Scheduled Monument and Grade I listed Stare Bridge (STN013) situated approximately 115m north of Stoneleigh Road Green Overbridge and approximately 60m west of Stoneleigh Road Realignment;
 - The Grade II listed East Lodge (STN015) situated approximately 60m north of Stoneleigh Road Green Overbridge, and approximately 40m north-east of Stoneleigh Road Realignment; and
 - Mary Lodge, Kennels House and Kennel Keepers Cottage (STN022), approximately 325m to the west of the Stoneleigh Road Green Overbridge and approximately 600m to the south-west of the Stoneleigh Road Realignment.
- 2.1.12 There are four non-designated heritage assets situated within the vicinity of the overbridge and Stoneleigh Road realignment. These are:
 - Stareton deserted medieval settlement (STN011) situated approximately 380m east of Stoneleigh Road Green Overbridge, and approximately 240m east of Stoneleigh Road Realignment;
 - Hedgerow adjacent to Stare Bridge, Stoneleigh Park (STN014) situated approximately 95m north-west of Stoneleigh Road Green Overbridge, and approximately 75m west of Stoneleigh Road Realignment;
 - Windmill site (STN018) situated approximately 135m north-east of B4113 Stoneleigh Road Green Overbridge, and approximately 25m east of Stoneleigh Road Realignment; and

B4113 Stoneleigh Road Green Overbridge

 Stare Bridge Earthworks (STN101) situated approximately 140m north-west of B4113 Stoneleigh Road Green Overbridge, and approximately 70m north-west of Stoneleigh Road Realignment.

2.2 Surrounding Highway Network

2.2.1 The B4113 Stoneleigh Road runs through the land within the site boundary, with Stareton Lane joining the road to the east of the overbridge and highways within the business park to the west. The A46 is located approximately 1.8km to the west and the A445 is located approximately 1.3km to the east. At its closest point, the M40 is situated approximately 11.4km to the south and the M6 is situated approximately 13.4km to the north at its closest point. Footpath W171 is also a Public Right of Way (PRoW) as identified by the Warwickshire County Council Definitive Map. The existing Footpath W171 is located west of the B4113, running in close proximity alongside the road and crossing the River Avon near Stoneleigh Park Estate and will be realigned as part of the Stoneleigh Road Green Overbridge works.

3 Description of the Works

3.1 Introduction

- 3.1.1 This Written Statement supports the Schedule 17 submission for the approval of plans and specifications for B4113 Stoneleigh Road Green Overbridge, in the vicinity of Stoneleigh, Kenilworth.
- 3.1.2 The Plans and Specifications submitted for approval are listed in the pro-forma accompanying the application. A summary of the proposed works for approval is provided in Section 3.2 below.
- 3.1.3 Section 3.3 summarises the indicative mitigation relevant to the works being submitted in accordance with paragraph 7.5.2 of the Planning Memorandum.
- 3.1.4 Sections 3.4 3.6 provide information on other aspects of the works to assist in understanding the context of planned construction methodology and how EMR controls apply to the works being submitted for approval. The information in Sections 3.4- 3.6 is not for approval under Schedule 17.

3.2 Works for Approval

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

County of Warwickshire, District of Warwick, Parish of Stoneleigh-

- Work No. 2/166 A diversion of Stoneleigh Road commencing at a point 190
 metres north of its junction with the access road to Rectory Cottages and
 terminating at a point 230 metres north-east of the junction of Stareton Lane with
 Stoneleigh Road. Work No. 2/166 includes a bridge over Work No. 2/146;
- 3.2.2 Figure 1 is an extract from sheet 2-109 respectively of Volume 2.2. Calvert Burton Green of the Replacement Plans as amended in Select Committee. The Limits of Deviation (LoD) for Work 2/166 listed in paragraph 3.2.1 as it crosses Work 2/146 can be seen within this extract

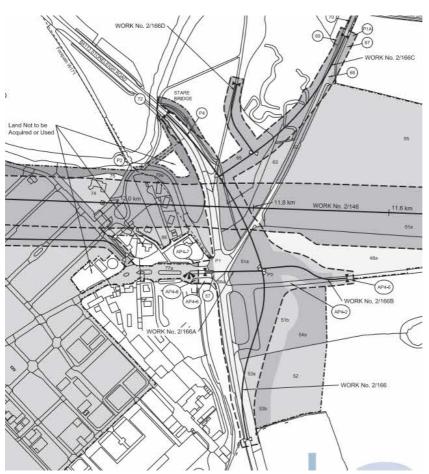


Figure 1: Extract from Replacement Sheet 2-109

3.2.3 The works submitted for approval are in close proximity to the B4113 Stoneleigh Road Green Underpass located south-west of the proposed overbridge which was submitted to the Local Planning Authority as a pre-application enquiry in June 2023. Stoneleigh Park Pumping Station is also located in close proximity to the east. A pre-application enquiry has not been submitted for this asset yet.

3.2.4 The works submitted for approval comprise:

- A new single span Green Overbridge that will carry the realigned B4113 Stoneleigh Road and realigned Footpath W171 over the HS2 railway;
- Earthworks associated with the cutting and embankments and non-engineering earthworks to facilitate the overbridge, realignment of B4113 Stoneleigh Road, Footpath W171 and Stareton Lane as well as maintenance access strips;
- · Vehicle restraint system;
- · Lighting columns;
- Kerbs forming the road layout shown on the GA Plan;
- Two land drainage ditches with headwalls and wingwalls; and
- Safety guard rails on part of the overbridge.

The proposed works for approval are shown on the submitted General Arrangement Plan (Document Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602).

Structures: Green Overbridge

- 3.2.6 The structure is provided to carry the realigned B4113 Stoneleigh Road and realigned Footpath W171 over the HS2 route, as the HS2 track alignment bisects the current highway.
- 3.2.7 The footpath W171 was located west of the B4113, running in close proximity alongside the road and crossing the River Avon near Stoneleigh Park Estate. Footpath W171 has been realigned in line with the location of the overbridge. The realignment begins at the River Avon crossing and joins Stoneleigh Road realignment to the north of the overbridge. This is shown on the submitted General Arrangement (Document Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602) alongside the 2.5m kerbed pedestrian access on the Stoneleigh Road realignment.
- 3.2.8 The B4113 highway at this location will comprise one lane in both directions with an additional dedicated lane for vehicles heading eastbound turning onto Stareton Lane. Each lane is 3.65m and the overall carriageway width is 11.2m.
- 3.2.9 The B4113 Stoneleigh Road is kerbed across its entire length. A grass verge is provided on both sides of the alignment. On the northern verge, the grass verge is paved between Stareton Lane and Stoneleigh Business Park to facilitate Footpath W171. The paved width of this footway is 2.m with a 0.5m grass verge behind.
- 3.2.10 The structure will feature two 7.5m wide greenways either side of overbridge. These greenways include grass verge, and hedgerows to help facilitate the crossing of mammals (in particular bats) over the HS2 alignment.
- 3.2.11 The Maintenance Access Strips (MAS) on either side of Stoneleigh Road, run alongside the green overbridge hedgerows for most of their length, these hedgerows are key ecological features. Maintenance access is required to maintain the hedgerows and bridge.
- 3.2.12 The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS

have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway.

- 3.2.13 The planting designs shown on the LEMP (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) and Deck Plan (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607) drawings are still being refined. The final landscape design scheme is not available for review at this stage, it will incorporate initial comments from the LPA and show all landscape mitigation including planting and seeding designs and mixes, it will be provided for approval at the Bringing into Use application stage.
- 3.2.14 The structural form will be a reinforced concrete slab deck.
- 3.2.15 The structure will be constructed using top-down methodology and will utilise a reinforced concrete abutment wall and reinforced concrete wing walls, topped with safety guard rails, aligned parallel to the track to provide ground retention. The top-down methodology means that the structure will be constructed first on the existing ground and then the ground underneath being excavated to form the bridge.
- 3.2.16 The structure will be integral (i.e. will not have bearings) which will remove future maintenance liabilities associated with end of life bearing replacement.
- 3.2.17 The top of the bridge deck will be positioned between 3m to 4m above existing ground level. The HS2 track will be situated beneath within a cutting up to 9m deep.

Amended Parapet Design

- 3.2.18 The new parapet design has been carefully considered to:
 - fulfil the technical requirements
 - maintain a robust and timeless architectural language
 - positively contribute to both the local context and national identity of the railway
 - provide a safe, legible and welcoming user experience.
- 3.2.19 Parapets have the following main functional and technical requirements:
 - preventing pedestrians from falling from the bridge
 - preventing vehicular or pedestrian incursion of the railway
 - controlling impact severity level for road vehicles
 - maintaining electrical safety in the vicinity of the overhead line electrification
- 3.2.20 To fulfil these requirements, the amended design includes some changes to the proposed geometry of the concrete parapets, which are described here.

- 3.2.21 The base of the internal face of the new parapet design has a 325mm high profile to meet the requirement in the updated National Highways standards to control impact severity level for road vehicles (shown on drawing MC08-BBV_MSD-PL-DSE-NS01_NL03-138605). Because this profile can act as a step, the overall height of the parapet is raised to 2125mm, to meet the HS2 system safety and security requirement to maintain an 1800mm high security perimeter around the railway. The upper portion of the parapet now 'leans out,' to make the bridge feel more spacious to users than it would with a vertical face as per the previously approved design.
- 3.2.22 The updated National Highways standards referenced above call for physical testing to demonstrate compliance. The new parapet design which, henceforth, will be used for the majority road overbridges over HS2, has therefore been the subject of a rigorous testing regime, and the components proposed for use in the Green Overbridge have been approved for use by the accreditation bodies responsible for reviewing the test results. They have also been accepted by National Highways. It should be noted that these approvals are only valid for the successfully tested parapets, and are not valid for untested variations from this design (e.g. concrete finish or geometry), therefore it is not possible to alter the design from that approved.
- 3.2.23 The proposed finish of the exposed faces of the concrete wingwalls, pile facings, sides of deck and soffit of deck is F2, which means the irregularities in the finish shall be no greater than those obtained from the use of wrought thicknessed square edged boards arranged in a uniform pattern. The finish is intended to be left as struck but imperfections such as fins and surface discolouration shall be made good.
- 3.2.24 Parapets will be formed of pre-cast concrete and fitted to the external flanks of the green overbridge superstructure. The proposed finish of the concrete external face of the parapets is F3 which means the resulting finish shall be smooth and of uniform texture and appearance. The formwork lining shall leave no stain on the concrete and shall be so joined and fixed to its backing that it imparts no blemishes. It shall be of the same type and obtained from only one source throughout any one structure. Any imperfections in the finish will be made good.
- 3.2.25 The highway has been realigned to enable construction of the overbridge to be carried out offsite of the existing highway thereby minimising closures. The realigned road is approximately 50m south of the original road location. The realignment occurs between the existing B4113 structure over the River Avon to Hares Parlour watercourse. As part of the reconfigured highway, the existing junction between Stareton Lane, Stoneleigh Business Park and the B4113 has been removed. A new 4 arm roundabout has been provided adjacent to Stoneleigh Business Park to facilitate this access and a new T-Junction has been provided for Stareton Lane.

Earthworks

- 3.2.26 To facilitate the overbridge and realignments, there will be minor earthwork embankments supporting the highway approaches (typically between 2m to 3m in height) to facilitate the realignment of B4113 Stoneleigh Road, as well as a retaining wall to support Stoneleigh Park Access Road. The retaining wall is 90.2m long, with the retained height varying from 0m to a maximum 0f 4.6m. It is comprised of a sheet pile, topped by an in-situ reinforced concrete capping beam. A plinth sits on top of the capping beam (min 0.45m wide) on top of which sits the Vehicle Restraint System. The exposed face of the sheet pile wall will be clad with patterned reinforced concrete (Kocher RECKLI Pattern 16mm deep vertical ribs).
- 3.2.27 Earthworks will facilitate the maintenance access strips which will be 3m wide and formed of grass with a short section of asphalt where they tie into the adjoining highway. Earthworks will also facilitate the two footways either side of the Stoneleigh Park Access Road, which will be 1.5m paved width, with an additional 0.5m grass verge behind.
- 3.2.28 The northernmost maintenance access strip (MAS) is required for HS2 access to the drainage ditch. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass except where it ties into the highway where it will have a short section of asphalt finish.

Drainage earthworks

- 3.2.29 Earthworks will be required to form two land drainage ditches.
- 3.2.30 One ditch is required to capture and direct run-off water from the earthworks north of Stoneleigh Road Green Roundabout. The open ditch connects to an underground pipe at its south-western end via a headwall and wingwall. Consent is sought only for the earthworks to form these ditches and headwall and wingwall.
- 3.2.31 The other land drainage ditch is located at the northern extent of the asset adjacent to Stoneleigh Road on its southern side. This ditch outfalls into the River Avon to the north after collecting surface water through pipes and gully system. A headwall and wingwall is required at the norther end of the drainage ditch.
- 3.2.32 Below ground works, including gully systems and pipework, do not fall within the scope of Schedule 17. A separate submission under Schedule 33 Part 5 will also be submitted seeking approval for these works.

Fences and Walls

- 3.2.33 A vehicle restraint system (VRS) will be located on both side of the Overbridge between the carriageway and the green vegetated zones. Further VRS's are proposed on the southern arm of the Stoneleigh Road (both sides of the highway) approaching the underpass, along a section of the main entrance road into Stoneleigh Park and on a maintenance Assess Strip opposite Stoneleigh Park Pumping Station. The VRS are required for highway and pedestrian safety reasons.
- 3.2.34 The VRS will be 0.9m high and will be a steel post and rail system attached to concrete foundations on the overbridge.

Lighting

- 3.2.35 Lighting is included as part of the proposed scheme. This lighting is in the form of 6m and 8m high lighting columns. The location of the proposed lighting is shown on the submitted General Arrangement Plan (Document Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602).
- 3.2.36 Roadside lighting is required along the roundabout and leading up to and over the bridge. In order to minimise light spill above 0.5 lux and to avoid impacting any bats using this feature, woodland planting has been set back from the road. The proposed habitat creation around this asset is expected to benefit a range of species

3.3 Indicative Mitigation

- 3.3.1 The Planning Memorandum (paragraph 7.5.2) states: 'When designs of HS2 works are submitted for approval, the nominated undertaker shall, where reasonably necessary for the proper consideration of the design proposed, provide an indication or outline of the appropriate mitigation measures (if any) which it intends to submit subsequently under paragraphs 9 or 12 of the Planning Conditions Schedule....' and '.....While not material to approvals under paragraph 2 or 3, this information will provide reassurance in advance of the request for approval under paragraph 9 that the mitigation is appropriate, and will present an opportunity to raise concerns.'
- 3.3.2 Details of the indicative mitigation relevant to the design proposed in this application are shown on the following drawings:
 - Landscape and Environmental Masterplan (Drawing Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603)
 - Deck plan (Document Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607)
- 3.3.3 The mitigation will comprise part of the overall mitigation scheme in relation to the scheduled works listed in section 3.2 above. Please note the final Landscape and

Environmental Masterplan is not yet available and will be updated for approval at the Bringing Into Use stage.

Ecology

- 3.3.4 B4113 Stoneleigh Road Green Overbridge provides a crossing point over the trace adjacent to Stoneleigh Business Park. The Environmental Statement (ES)⁴ states that the B4113 Stoneleigh Road Green Overbridge will provide connectivity for wildlife across the scheme through a continuous green corridor over the trace.
- 3.3.5 The south western edge of the Stoneleigh Road Realignment crosses an unnamed tributary of the River Avon Local Wildlife Site (LWS) via the existing B4113 Stoneleigh Road. No culvert works to the watercourse are anticipated. Another section of the River Avon LWS runs north of the works, which the existing B4113 crosses over via a bridge. The works are adjacent to Hares Parlour and Brick Kiln Spinney potential Local Wildlife Site (pLWS) and the existing Stoneleigh Road runs to between sections of the woodland present.
- 3.3.6 The overbridge is located within 2km of the following designated sites:
 - 0.54km north of Decoy Spinney ancient woodland
 - 0.70km south of Motslowhill Spinney ancient woodland
 - 0.74km north east of Bericote Woods ancient woodland
 - 1.46km south west of Black Spinney LWS
 - 1.41km south east of Nr Stoneleigh Wood ancient woodland, and
 - 1.76km south east of Glasshouse Wood ancient woodland.
- 3.3.7 The site boundary falls within areas of the 'John Eastwood Farm (Stone House Farm Pool)' Ecosite (Reference: 45.1/37) and 'Stareton' Ecosite (Reference: 235/37) and potential LWS (pLWS).
- 3.3.8 There is one important hedgerow (Hedgerow Regulations 1997) within the site boundary, this will be lost during construction in line with the ES.
- 3.3.9 The baseline habitats comprise predominantly arable, improved grassland, and poor semi-improved grassland fields bordered by species-poor hedgerows with a bare ground access track leading west to east through the area. A section of the road realignment will also require clearance of broadleaved woodland between the existing B4113 Stoneleigh Road and Stareton Lane.

Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067 Rev: C01

 $https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/397890/Vol_2_CFA18_Stoneleigh_Kenilworth_and_Burton_Green.pdf$

B4113 Stoneleigh Road Green Overbridge

- 3.3.10 The ES assumes total clearance of habitats within the land required for construction, however during detailed design the loss of habitat is minimised, where possible. The overbridge is partially associated with three ecological mitigation sites, SK021, SK033A, and SK033B. Early Works Contract (EWC) site SK021 is located 170m to the east of the trace and SK033A and SK033B are located between 200m and 400m to the west of the trace. A section of SK021 has been created as advance planting as part of the EWC to compensate for the loss of native broadleaved woodland, to provide suitable habitat for amphibians including pond creation, and to provide roosting opportunities for bats through the provision of bat boxes. Planting has not yet been undertaken for SK033A and SK033B and a section of SK021 and will be undertaken as part of the main works. This will include a mosaic of woodland and grassland habitats with the primary function of providing habitat connectivity for protected species and combining ancient woodland parcels.
- 3.3.11 Protected species including bats, great crested newt (GCN − *Triturus cristatus*), are present within the site location. Details of the impact on these protected species in relation to the proposed design, its operation and any mitigation measures are detailed below.
- Bat activity surveys recorded Assumed Commuting Routes (ACR) of high importance 3.3.12 and of importance either side of the B4113 Stoneleigh Road. These follow hedgerows and the River Avon from the overbridge to the wider area. The ACRs include connectivity to the Stare bridge which has been recorded as a roost for Daubenton's bat (Myotis daubentonii) and brown long-eared bat (Plecotus auritus). The ACR supports a diverse assemblage of bat species including noctule (Nyctalus noctula), Myotis species and Leisler's bat (Nyctalus leisleri). The assemblage of bats using foraging and commuting habitats between A445 Leicester Lane and Stoneleigh Road was assessed to be of 'district/borough' value. Confirmed tree roosts were identified within the site boundary. Trees assessed as having low, moderate, and high potential for roosting bats are present within the worksite boundary. The assemblage of bats associated with tree roosts within the area was assessed to be 'up to county/metropolitan' value. Two bat licences have been granted for the area, a traditional licence (TRAD01) associated with the loss of tree and building roosts in Stoneleigh Park, and Bat Low Impact Class Licence (BLICL09) associated with the B4113 Stoneleigh Road Green Overbridge.
- 3.3.13 The B4113 Stoneleigh Road Green Overbridge is proposed to reduce the effects of habitat severance impacts on bats and provide continued connectivity for bat foraging and commuting habitat over the HS2 railway line. This will be achieved through planting on the B4113 Stoneleigh Road Green Overbridge and the B4113 Stoneleigh Road Realignment. The design of this will include:
 - Species rich hedgerows (minimum of 5 native species per 30m) with a width of 3m along the new Stoneleigh Road running over the bridge;

- Large trees to be planted directly opposite each other to provide bat hop over points along Stoneleigh Road in accordance with the HS2 Ecological Technical Standards (Document number: HS2-HS2-EV-STD-000-000017);
- Woodland screen planting within Stoneleigh either side of the new Stoneleigh Road;
- Woodland creation as part of SK033A and SK033B and with connectivity to Hares Parlour and Brick Kiln Spinney pLWS;
- Species rich grass verges with a width of 3m along the bridge.
- 3.3.14 Species to be used will be in keeping with the local area and informed by National Vegetation Classification (NVC) surveys undertaken. Planting along the new overbridge will provide connectivity to existing ACRs along hedgerows and the River Avon to the east of the trace and habitat creation areas SK021, SK033A and SK033B to the east and west of the trace. This will achieve connectivity into the wider landscape through multiple routes. No ecological fencing is proposed and hedgerows are expected to guide bats to large trees provided as hop overs.
- 3.3.15 Roadside lighting is required along the roundabout and leading up to the bridge. In order to minimise light spill above 0.5 lux and to avoid impacting any bats using this feature, woodland planting has been set back from the road and the height of lighting has been reduced to 0.8m around the north western spur of the roundabout.
- 3.3.16 The overbridge falls within the assumed metapopulation (AMP) 65 for great crested newt (GCN *Triturus cristatus*) with the closest pond suitable for GCN located 0.11km south of the works. Construction works within AMP 64 are covered under *WP 054 Stoneleigh Enabling Works North Contract. AMP 65 Method Statement for Works under HS2 Organisational GCN Licence.* (Document Number 1EW04-LMJ-EV-MST-NS01_NL03-054004). No pond loss is expected in this AMP. The removal of terrestrial habitat within 500m of these ponds is anticipated. Woodland and grassland planting within SK021, SK033A, SK033B will provide offset habitat within this AMP.



3.3.18 Full details of the species composition for these habitats are currently being finalised as part of detailed design and will be provided within Ecology Site Management Plan (ESMP) detailing the habitat creation and management of the overbridge.

Archaeology

3.3.19 No mitigation is required, based on the findings of the Early Work Contractors' archaeological investigations. Details of archaeological investigation undertaken to enable construction works can be found in section 3.5.3.

Built Heritage

- The setting of the Grade II* Registered Park and Garden Stoneleigh Abbey (STN012) will 3.3.20 be impacted by the works described in this Written Statement. The registered parkland at Stoneleigh Park is divided into two main sections (east and west); these are joined by a very narrow strip of registered land to the south. The area between the two areas of parkland houses Stoneleigh Park. This is a facility with a number of large modern buildings set within a structured modern landscape served by a network of roads. The works described in this Written Statement will avoid the two main surviving areas of historic parkland and will instead pass through the narrow strip of designated parkland which joins the two areas and encroach on the very southern tip of the registered park. The narrow strip retains some limited parkland features, but its form and character has been largely denuded by the development of Stoneleigh Park. The small area of woodland at the southern tip of the registered parkland which lies within the land required for the construction of the B4113 Stoneleigh Road Green Overbridge does however contain areas of historic planting which contribute to the character of the parkland in this area. The construction of the works will result in the loss of a small area of historic woodland planting at the southern tip of the park, this will slightly degrade the fabric and character of the wider park. The development will also slightly increase the visual severance between the two larger elements of the parkland, physical connections will however be maintained through the reestablishment of road and footbridges.
- 3.3.21 However, the elevated nature of this area and the density of modern buildings and existing planting will severely curtail views of the overbridge from either portion of the Registered Park. Moreover, belts of trees and hedges, topography and intervening built form will screen much of the development from the works. The corridor along which the overbridge runs has undergone substantial change in the 20th century and further change within it will not degrade the fabric and character of the registered parkland.
- 3.3.22 The setting of the listed buildings Stoneleigh Abbey (STN012), Stare Bridge (STN013), East Lodge (STN015) and Mary Lodge, Kennels House and Kennel Keepers Cottage (STN022) contributes to their historic value. Therefore, elements of the mitigation will be employed to ensure that the wider historic landscape and affected setting of these assets is minimally impacted. This will include species-rich grassland bordering the works and

either side of Stoneleigh Road and woodland planting to comprise native species to the west of the works. This will be used to integrate the overbridge into the local landscape and surrounding context, and filter views of, or screen as far as possible any visual impacts that might affect the character of the assets' setting. This is described in more detail below in paragraphs 3.3.24 – 3.3.32.

3.3.23 Noise mitigation has also been factored in as part of the overall design. In addition to earthworks embedded in the design, the Noise Demonstration Report (NDR) proposes a 5m tall, 1225m long trackside noise barrier on the Stoneleigh Park Retaining Wall (to be consented separately). This is described in more detail below in section 3.3.33 – 3.3.37.

Landscape

- 3.3.24 The mentioned area forms a component of Stoneleigh Parklands Local Character Areas (LCA) with certain portions designated as the Grade II* listed Stoneleigh Abbey Registered Park and Garden (STN012). This LCA is characterised by gently undulating landform enclosed by woodland edges, parkland and belts of trees. Land use is predominantly agricultural with generally large field patterns. Urban fringe uses are present with Stoneleigh Business Park and recreational uses, as at Kenilworth Golf Course. The LCA is crossed by a number of transport routes, principally the A46 Kenilworth Bypass and the A429 Kenilworth Road and Coventry to Leamington Spa Line. These latter routes cross a narrow extent of fields between Kenilworth and Coventry at Gibbet Hill. Vegetation consists of woodland blocks, belts of hedgerows and trees and wooded banks along streams.
- 3.3.25 There are a number of ancient woodlands such as Crackley Wood, Broadwells Wood Black Waste Wood and registered parks and gardens. The majority of the LCA is designated green belt. There are numerous watercourses and streams, with the River Avon and River Sowe near Stoneleigh Business Park and the Finham Brook and Canley Brook near Kenilworth. The LCA is crossed by numerous PRoW, of which the Kenilworth Greenway is the most prominent within the landscape, being on embankment or cutting and bordered by mature vegetation.
- 3.3.26 The landscape contains woodland blocks, hedgerows and former parklands that are currently used for intensive agriculture. The condition of the landscape is considered to be fair. The proposed site will involve the replacement of certain sections of woodland situated east of the project. However, the woodland will be replenished by planting woodland mixes that align with the existing compositions found in the area. These mixes will include species like Querqus robur, Querqus petrea, Acer campestre, Ulmus glabra, as well as hedgerows containing species such as Corylus avellana, Crataegus monogyna, Prunus spinosa, and Sambucus nigra. The impact on the surrounding areas in relation to landscape point at the operational phase will be mitigation by the woodland replacement to the east and by further woodland planting to the west and south. The

tranquillity of the area is medium due to existing agriculture activity crossed by transport routes where the noise emanated is more evident.

- 3.3.27 The significance of the landscape is evaluated at a regional level. The evaluation conducted during the ES takes into account the existing value of the landscape at significantly affected locations. The impact is considered moderately adverse during the construction phase. However, it is anticipated that by the 15th year of the operational phase, the impact will become insignificant due to the proposed planting being established and providing the screening required.
- 3.3.28 The reasons for this are twofold. Firstly, the receptors analysed exhibit low sensitivity. Secondly, the implementation of landscape mitigation measures has been taken into account which are outlined as follows:
 - The design of the landscape environment around the B4113 Stoneleigh Road Green Overbridge incorporates a green infrastructure approach. This approach aims to create a well-connected landscape that serves multiple purposes including mitigation flooding, promoting biodiversity, and facilitating recreational activities. The proposed planting schemes will integrate locally specific vegetation such as mixed woodland, low woodland edge planting, and shrub areas. These schemes will adhere to National Vegetation Classification including specific classifications like W8 which represent woodland areas predominately characterised by oak trees and elms. As part of the project, certain areas of the initial woodland clearing will be replanted thereby removing connectivity for bat flight paths as well as facilitating movement for both humans and animals. Additionally, new woodland areas are being planted to the west and south to enhance screening of the scheme;
 - Embankments and cuttings, both for the railway and highway realignments, which have been shaped to integrate the B4113 Stoneleigh Road Green Overbridge into the character of the surrounding landscape. The highway realignment is preserving the existing road, the railway passing under the existing road, which becomes a green bridge. These works are screened by the proposed vegetation which connects to the existing woodland. The earthworks that connect the bridge with the maintenance access strip, to the Stoneleigh Underpass, to the Pumping station do not exceed a slope of 1:3, connecting organically to the existing country and business landscape;
 - Planting includes native broad-leaved woodland, shrub, species-rich grass and hedgerows to screen the B4113 Stoneleigh Road Green Overbridge from neighbouring residences and users of adjacent PRoW and to also aid integration of the development into the landscape; and
 - Selection of species that will reflect tree and shrub species native to the local landscape and take into account possible climate change impacts associated with the quality and availability of water and the potential increase in pests and diseases. In order to reduce the risk of spreading of Ash dieback, ash will not be part of the proposed species. The planting palette for mixed native woodland comprises of Acer

campestre (Field Maple), Betula pendula (Silver Birch), Ilex aquifolium (Holly), Malus sylvestris (Crab Apple), Prunus avium (Wild Cherry/ Gean), Quercus petraea (Sessile oak), Quercus robur (Pedunculate Oak), Sorbus aucuparia (Rowan), and shrubs such as: Corylus avellana (Hazel), Crataegus monogyna (Hawthorn), Prunus spinosa(Blackthorn), Lonicera periclymenum(Honeysuckle), Viburnum opulus (Guelder Rose), Sambucus nigra (Elder), Rosa canina (Dog rose).

- 3.3.29 Details of planting and soft landscaping do not require approval of plans and specifications under paragraphs 2 or 3 of Schedule 17.
- 3.3.30 The planting designs shown on the LEMP (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) drawing are still being refined. The final landscape design scheme is not available for review at this stage, but will incorporate initial comments from the LPA and show all landscape mitigation including planting and seeding designs and mixes, it will be provided for approval at the Bringing into Use application stage.
- 3.3.31 The mitigation will comprise part of the overall mitigation scheme in relation to the scheduled works listed in section 3.2 above.
- 3.3.32 The planting proposed comprises of native hedgerow, species rich grass and low woodland edge, is located in a registered park and garden. This planting will be in keeping with the character and the interest of the heritage asset. The local planting is classified as being W8 of National Vegetation Classification which has as major species listed as oaks, elms and ash for woodland respectively hazel and hawthorn for shrubs. The local characteristic under flora is represented by hawthorn, blue bell, guelder rose and others.
- 3.3.33 The mitigation measures include the retained cutting through Stoneleigh and Stoneleigh Business Park and at Burton Green to reduce the land required for the development on either side of the route and planting of hedges on both sides of the B4113 Stoneleigh Road green overbridge to enable landscape connectivity.
- 3.3.34 Introduction of the B4113 Stoneleigh Road Green Overbridge in the predominant agricultural area and Stoneleigh Business Park will result in minor alteration of the character of the area. The minor impact on the overall area results from the planting of the low woodland edge and mixed native woodland along the B4113 Stoneleigh Green Overbridge and integrating them with the existing woodland planting. The planting scheme is continued by hedgerows on either side of the green bridge, then by hedgerow that links the Pumping Station and the Early Works Site situated to the west of the Pumping Station. As the proposed vegetation matures it will aid in integrating the road realignment and proposed overbridge and these elements will reflect the current character of roadside vegetation within the LCA.

Noise

- 3.3.35 The Planning Memorandum (paragraph 7.5.2) states: "When designs of HS2 works are submitted for approval, the nominated undertaker shall, where reasonably necessary for the proper consideration of the design proposed, provide an indication or outline of the appropriate mitigation measures (if any) which it intends to submit subsequently under paragraphs 9 or 12 of the Planning Conditions Schedule...." and ".....While not material to approvals under paragraph 2 or 3, this information will provide reassurance in advance of the request for approval under paragraph 9 that the mitigation is appropriate, and will present an opportunity to raise concerns."
- 3.3.36 A noise demonstration report (NDR) (Document Reference: 1MC08-BBV_MSD-EV-REP-NS01_NL03-100088) has been produced to accompany the Schedule 17 application that provides this information and includes the following:
 - a) A description of the additional mitigation options considered to control noise;
 - b) Plans showing the surrounding environment and receptor positions;
 - c) Details of the methodology used in predicting noise and vibration levels;
 - d) Assumptions relating to the acoustic performance of rolling stock and track;
 - e) Tables setting out the predicted levels of operational noise at all individual receptors where the lowest observable adverse effect level (LOAEL) is likely to be exceeded.
- 3.3.37 There is one noise related undertaking and assurance (U&A) that is specifically applicable to Stoneleigh Park Estate in the vicinity of the overbridge. The text of U&A 2837 19 is as follows:
 - 12.1 The Nominated Undertaker will seek to secure that noise and vibration levels experienced at the Stoneleigh Park Estate arising from the operation of the Railway during the Operational Period shall not exceed the levels set out in the Environmental Statement deposited with the Act, such levels to be achieved by the implementation of the Environmental Minimum Requirements in relation to the design and construction of the Proposed Scheme and the provision of suitable noise and vibration mitigation.
 - 12.2 The Nominated Undertaker will provide the Stoneleigh Park Estate Petitioners with information as predicted by the Nominated Undertaker of the levels of noise and vibration which are anticipated to arise from the Works during the Construction Period and the Operational Period at the Stoneleigh Park Estate and the levels of noise and vibration which do occur until completion of the Proposed Scheme.
 - 12.3 The Nominated Undertaker will, in addition to the requirements of the Environmental Statement and the Environmental Minimum Requirements and in the absence of any other form of noise attenuation to at least 'equivalent acoustic

performance' as agreed with the Stoneleigh Park Estate Petitioners, provide the Additional Bunding as soon as reasonably practicable following commencement of the Relevant Works and shall thereafter leave that Additional Bunding in place throughout the Construction and Operational Period.

- 3.3.38 The NDR for Stoneleigh to Canley Area that incorporates the Stoneleigh Road Green Overbridge (Document Reference: 1MC08-BBV_MSD-EV-REP-NS01_NL03-100088) shows that reasonably practicable measures need to be taken for the purpose of mitigation of the effect of operational noise in the vicinity of the overbridge.
- 3.3.39 The NDR proposes a 5m tall, 1225m long trackside noise barrier on Stonehouse Cutting (formerly the Stoneleigh Park Retaining Wall) to be consented separately. Note, however, that the design of the assets in the vicinity of the overbridge is still under development and the replacement of the retaining wall by an open cutting, is likely to make minor changes to the composition of the trackside mitigation proposals. This refinement in mitigation has not yet been included in the NDR but will be included in an update to the NDR once the new arrangement has been detailed. None of these refinements are expected to affect the mitigation requirements for the asset itself. For the current design, resultant impacts are slightly improved compared to the ES and the requirements of U&A 2837_19 are met.

3.4 Construction Method

- 3.4.1 This section summarises the general construction methodology and the main temporary works arrangements. The arrangements described may alter, are for information and background only and do not form part of this request for approval.
- 3.4.2 It is anticipated that the overbridge will be constructed via top-down methodology in the following high level sequence:
 - Topsoil and subsoil stripping, excavation to underside of the capping beams;
 - Construct the piling platform and do the piling works;
 - Build capping beams and deck;
 - Technical backfill around abutments;
 - Install parapets, ducts for utilities, drainage, on each side of the overbridge; and
 - Earthworks, duct for utilities, drainage, on each side of the overbridge.

- 3.4.3 The temporary construction compound that will manage the construction of the works will be the A46 compound Kenilworth Bypass Overbridge main compound. This compound is located in close proximity to the A46 approximately 0.7km to the north of Stoneleigh and approximately 1.48km to the east of Kenilworth.
- 3.4.4 Construction affects the existing B4113 Stoneleigh Road, Footpath W171 and Stareton Lane. Consultation with local authorities will be undertaken to agree any required traffic management.

3.5 Historic Environment

- 3.5.1 As set out within the HS2 Heritage Memorandum (part of the HS2 Environmental Minimum Requirements), a route-wide generic written scheme of investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) has been prepared in consultation with Historic England (HE) and the local planning authorities along the route. It sets out the research framework and general principles for design, evaluation, investigation, recording, analysis, reporting and archive deposition to be adopted for the design development and construction.
- 3.5.2 The HS2 Heritage Memorandum also sets out how the historic environment (including heritage assets and their setting) will be addressed during design. The HS2 Environmental Memorandum sets out the approach to landscape and visual mitigation which takes account of the historic environment.

Archaeological Summary Statement

- 3.5.3 The arrangements for the management of archaeology during construction are not a matter for approval under Schedule 17.
- 3.5.4 Following the guidance of the ES and HERDS, the area has undergone archaeological trial trenching by the Early Works Contractors. The evaluation trial trenching report for this area is Document Number: 1EW04-LMJ_WEX-EV-REP-NS01_NL03-029013_C01. The requirement and scope for any additional phases of archaeological work has been agreed in consultation with stakeholders and HS2 after the review of results presented in this report. Of the trenches excavated in this area, 82% were blank or archaeologically uninformative. The finds recovered in the other trenches comprised a sherd of 19th or 20th century whiteware pottery, and a 19th or 20th century metal rod.
- 3.5.5 No further archaeological works in this area are required in this area to mitigate the works described in this Written Statement.

3.5.6 The unexpected finds procedure (1MC08-BBV_MSD-EV-PRO-N000-100001) will be employed to mitigate any unexpected archaeology that has not previously been recorded by EWC.

Built Heritage

- 3.5.7 The HS2 Heritage Memorandum also sets out how the historic environment (including heritage assets and their setting) will be addressed during design. The HS2 Environmental Memorandum sets out the approach to landscape and visual mitigation which takes account of the historic environment.
- 3.5.8 As noted in the sections above, the closest designated built heritage assets to these design elements are Stoneleigh Abbey, Stare Bridge, East Lodge, and Mary Lodge, Kennels House and Kennel Keepers Cottage. The ES Cultural Heritage impact assessment tables CH-003-020 highlight the high adverse impacts from construction and operation of the proposed works upon this asset.
- 3.5.9 Following the guidance of the ES and HERDS, a monitoring programme has been undertaken at East Lodge and Stare Bridge in accordance with their respective Monitoring Strategies (Document Reference: 1EW04-LMJ_DJV-ST-STR-NS01_NL03-029004 and 1EW04-LMJ_DJV-ST-STR-NS01_NL03-029003). The results of the monitoring are recorded in Final Reports (Document Reference: 1EW04-LMJ_DJV-ST-REP-NS01_NL03-029034 and 1EW04-LMJ_DJV-ST-STR-NS01_NL03-029003). This followed engagement with the local authority and Historic England.

3.6 Environmental Management During Construction

3.6.1 The Environmental Memorandum (part of the HS2 Environmental Minimum Requirements) sets out the arrangements for the management of environmental issues during construction and the Code of Construction Practice (CoCP) sets out specific details and working practices that apply. The CoCP is supported by Local Environmental Management Plans (LEMPs) which include specific measures by topic, relevant to each relevant local authority area. The LEMP relevant to the works subject to this Schedule 17 submission is Local Environmental Plan Warwick District Council (December 2017) and can be found here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/669187/warwick_local_environment_management_plan.pdf

Ecology

3.6.2 Environmental management arrangements during construction do not form part of this request for approval of Plans and Specifications under Schedule 17. Section 9 of the CoCP sets out general provisions and measures which apply to ecology. Section 9.1.3 of the CoCP states that, where reasonably possible, mitigation will be provided by design

and implemented by contractors. Section 9.1.5 of the CoCP also states that where possible habitat loss will be minimised by keeping the working area to that of the minimum required for construction of Phase 1. The CoCP sets out which ecological management measures will be required. These measures include:

- The summary of ecological features (receptors) of statutory designated sites, nonstatutory designated sites, and ancient woodland as identified within the ES which may be affected due to construction;
- Plans showing the location of these statutory designated sites, non-statutory designated sites, and ancient woodland that may be impacted due to construction, including access routes;
- The use of best practice methods to mitigate impacts on ecological features during construction and plans of proposed mitigation locations. The plans will be included in LEMPs.
- 3.6.3 The CoCP also includes as a measure that Ecology Site Management Plans are produced to include the above information for:
 - Terrestrial and wetland habitats; and
 - Legally protected, notable and invasive non-native species.
- 3.6.4 Protected species works will be in accordance with the requirements of the route wide activity licences. In recognition of the potential presence of breeding birds, habitat clearance will be completed outside of breeding bird season, or under ecological supervision.

Dust

3.6.5 As set out in Environmental Minimum Requirements Annex 1: Code of Construction Practice, "The nominated undertaker will require its contractors to control and limit dust, air pollution, odour and exhaust emission during the construction works as far as reasonably practicable and in accordance with best practicable means (BPM)".

Noise and Vibration

3.6.6 Best practicable means (BPM) will be applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors (including local businesses and quiet areas designated by the local authority) arising from construction activities. Works will comply with Section 61 of the Control of Pollution Act 1974.

Schedule 17 Plans and Specifications Written Statement Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067

Revision: C01

B4113 Stoneleigh Road Green Overbridge

Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067 Rev: C01 Page 29

4 Design Approach and Rationale

4.1 Introduction

- 4.1.1 Stoneleigh Road Green Overbridge consists of an overbridge to carry the realigned B4113 Stoneleigh Road and Footpath W171, earthworks to facilitate the realignment and other associated works, a vehicle restraint system and lighting columns.
- 4.1.2 The overbridge forms part of scheduled work (Work No. 2/166) and has been designed to provide access across the HS2 railway track and, where possible, has been integrated with the local context. The position of the overbridge is largely determined by function and the Limits of Deviation for the relevant work. Mitigation measures outlined in Section 3.3 of this Written Statement highlight how the proposal will work to preserve the quality of the local environment and landscape.

4.2 Design Rationale

4.2.1 All HS2 developments have been designed to the highest standard. The HS2 Design Vision considers three core design principles consisting of People, Place and Time. Stoneleigh Road Green Overbridge forms part of a scheduled work, and has been subject to design refinement, assuring that it preserves the environment as far as practicable. The overbridge has been designed to carry the realigned B4113 Stoneleigh Road and Footpath W171. A grass verge is provided on both sides of the road. The structure will feature two 7.5m wide greenways which include grass verge and hedgerows to help facilitate the crossing of mammals (in particular bats) over the HS2 alignment.

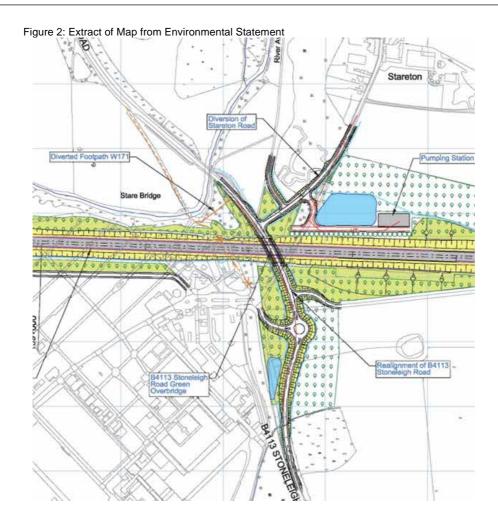
4.3 Design Constraints

- 4.3.1 The following constraints have influenced the proposed design of Stoneleigh Road Green Overbridge and associated works:
 - Requirement to provide the clearance between the bridge soffit and HS2 tracks.
 - Requirement to reduce surrounding light spill onto the hedgerow to under 0.5lux.
 - Requirement to consider how hedgerow, parapet and vehicle restraint system aligned with the overbridge.
 - Requirement to keep the works within the within the Limits of Deviation (LoD) and Limits of Land to be Acquired and Used (LLAU).

Design Evolution Since Final Preliminary Design

- 4.3.2 An extract of the Final Preliminary Design (FPD) for the overbridge shown in Phase One ES Volume 2 CFA map book (CFA 18 Stoneleigh, Kenilworth and Burton Green, Reference ES 3.2.1.18) is provided in **Figure 2** below. The design of Stoneleigh Road Green Overbridge has undergone some changes since FPD as set out below:
 - The bridge structure been optimised from a 3 span structure to a 1 span cast in situ structure. This has a shorter bridge length and involves less excavation and is therefore more cost effective. It was also decided that as a single span structure, a cast-in-situ slab deck would be a more cost-effective option to suit the top-down construction methodology.
 - The bridge has been widened to 35.7m to accommodate the ecological benefits of this passage.
 - Roundabout on the west side of HS2 has been brought nearer to the HS2 trace to align it better to Stoneleigh business park and improve circulation of vehicles in the area.
 - Ramp to Stoneleigh business park has been designed with a less steep alignment and a retaining wall added to enable the proposals to be contained within the LLAU.
 - Stoneleigh Road Green underpass has been brought nearer to the roundabout to ensure vertical clearance of the structure. Also, this structure has changed to precast units.
 - Lighting columns are now located behind the VRS and lux levels confirmed as less than 0.5 lux level for at least 1.5m width of the hedgerow.

Document Reference: 1MC08-BBV_MSD-PL-REP-NS01_NL03-100067 Rev: C01



4.4 Options Considered

- 4.4.1 An initial sift process was conducted through a series of qualitative value engineering workshops with scoring based on multiple design criteria.
- 4.4.2 The following options were considered for the overbridge structure:
 - Option 1: 3 Span structure comprising precast reinforced concrete I/T beams.
 - Option 2: 3 Span structure comprising cast in-situ reinforced concrete slab deck.
 - Option 3: 3 Span steel composite.

4.5 Selected Option

- 4.5.1 A cast-in-situ slab deck (option 2) was selected.
- 4.5.2 As HS2 is situated within a deep cutting at this location, top-down construction (i.e. building the bridge at ground level then excavating underneath for the cutting) is the most

appropriate form of construction. The structure has been designed to accommodate this form of construction.

- 4.5.3 An offline structure (involving a realignment of the existing highway) was considered most suitable as it enables construction of the B4113 Stoneleigh Road Green Overbridge to be carried out offline of the existing highway thereby minimising closures.
- 4.5.4 The precast beam deck option (option 1) was rejected due to difficultly of placing beams for top-down construction. It also would likely have required a thicker structure depth which would have impacted on the ability to meet HS2 headroom requirements.
- 4.5.5 The steel composite deck option (option 3) was rejected as it is not economical for the required span length and may not be suitable for top down construction.
- 4.5.6 A single span option was selected as it enables a shorter overall bridge length and involves less excavation. This reduces the footprint associated with the structure, retains more of existing ground and reduces construction material. This reduces cost and environmental impact of the structure.
- 4.5.7 This structure enhances the ecological benefits of the project, creating an ecological passage over HS2. Bats and other animals can potentially use this green overbridge to cross HS2. Two lines of hedgerows and a specific lighting design meet the requirements for bats on the green bridge structure.
- 4.5.8 Option 2 was considered the most cost-effective option to suit the top-down construction methodology required at this location.

4.6 Consideration Against the Relevant Ground for Refusal in the Schedule 17

- 4.6.1 The proposed development includes a range of activities for which approval of Plans and Specifications is required, in line with Schedule 17 of the Act. These activities fall into the following categories:
 - Building works/Structure: Overbridge;
 - Earthworks (including retaining wall and drainage headwalls and wingwalls);
 - Fences and Walls: Vehicle Restraint System; and
 - Artificial lighting equipment: Lighting columns.

B4113 Stoneleigh Road Green Overbridge

Revision: C01

Structure: Overbridge

- 4.6.2 As detailed in Section 3 of this Written Statement, a structure (the overbridge) is proposed within the site boundary.
- 4.6.3 Possible grounds for refusal relating to structures are set out in Section 2, paragraph 5 of Schedule 17. These are considered in **Table 3**:

Table 3: Structures - Assessment of Proposed Development Against Possible Grounds for Refusal

Possible Grounds for Refusal	Assessment of Proposed Development
That the design or external appearance of the building works ought to be modified— (i) to preserve the local environment or local amenity,	The overbridge is located within the Limit of Deviation and is required to carry the realigned B4113 Stoneleigh Road and realigned Footpath W171 over the HS2 route, as the HS2 track alignment bisects the current highway.
	The overbridge has a sufficient headroom clearance and the highway level has been selected to provide the minimum clearance whist also providing a compliant highway alignment for the intended design speed of the road. The overbridge will provide connectivity for wildlife across the scheme through a continuous green corridor over the trace. A sufficient working width between the vehicle restraint system, highway verge and hedgerow is also provided.
	Furthermore, the design of the landscape environment around the B4113 Stoneleigh Road Green Overbridge incorporates a green infrastructure approach. This approach aims to create a well-connected landscape that serves multiple purposes including mitigation of flooding and promoting biodiversity.
	The embankments and cuttings associated with the railway and highway realignments will be shaped to integrate the B4113 Stoneleigh Road Green Overbridge into the character of the surrounding landscape. The highway realignment preserves the existing road on a green overbridge. These works are screened by the proposed vegetation which connects to the existing woodland.
	Overall, the overbridge has been designed to carry the realigned B4113 Stoneleigh Road and Footpath W171 whilst also integrating the works, where possible, into the surrounding context.
(ii) to prevent or reduce prejudicial effects on road	The Overbridge and other highway works maintain

Possible Grounds for Refusal	Assessment of Proposed Development
safety or on the free flow of traffic in the local area, or	the existing road infrastructure so there is no change to the free flow of traffic. Safety measures including a vehicle restraint system, kerb and lighting are incorporated into the Overbridge design to ensure road safety. All proposals have been discussed with WDC and WCC Highway Departments.
(iii) to preserve a site of archaeological or historic interest or nature conservation value.	Impacts on archaeology, heritage assets and nature conservation are discussed in Section 3.3 of this Written Statement. With regards to nature conservation, protected species including bats, Great Crested Newts,
	are present within the site boundary.
	Bat activity surveys recorded ACR of high importance and of importance either side of the B4113 Stoneleigh Road. The B4113 Stoneleigh Road Green Overbridge is proposed to reduce the effects of habitat severance impacts on bats and provide continued connectivity for bat foraging and commuting habitat over the HS2 railway line. This will be achieved through planting on the B4113 Stoneleigh Road Green Overbridge. Connectivity will be achieved to the wider landscape as well through multiple routes.
	For GCN, no pond loss is expected. The removal of terrestrial habitat within 500m of these ponds is anticipated. Woodland and grassland planting within SK021, SK033A, SK033B will provide offset habitat locally.
	In addition, the overbridge will not territory as the green corridor of the overbridge provides safe passage to cross the trace. Further details are provided in paragraphs 3.3.4 – 3.3.18.
	In terms of archaeology, no mitigation is required. As discussed in paragraph 3.3.20 – 3.3.23, the closest designated built heritage assets include Stoneleigh Abbey (STN012), Stare Bridge (STN013), East Lodge (STN015), and Mary Lodge, Kennels House and Kennel Keepers Cottage (STN022). Whilst the overbridge and realignment itself cannot be altered to further minimise impacts on the assets, the green infrastructure bordering the works will integrate the overbridge into the local landscape and surrounding context. It will thereby filter views and

B4113 Stoneleigh Road Green Overbridge

Possible Grounds for Refusal	Assessment of Proposed Development
	screen as far as possible visual impacts that may affect the character of the assets' setting.
	The Grade II* Registered Park and Garden Stoneleigh Abbey (STN012) will be impacted by the works described and a small area of historic woodland will be lost towards the southern part of the park. This will slightly degrade the fabric and character of the wider park and will also slightly increase the visual severance between the two larger elements of the parkland. However, the physical connections will be maintained through the reestablishment of road and footbridges.
	The construction of the works will result in the loss of a small area of historic woodland planting at the southern tip of the park, this will slightly degrade the fabric and character of the wider park. The development will also slightly increase the visual severance between the two larger elements of the parkland, physical connections will however be maintained through the reestablishment of road and footbridges. In addition, the elevated nature of this area and the density of modern buildings and existing planting will severely curtail views of the construction overbridge from either portion of the Registered Park. Moreover, belts of trees and hedges, topography and intervening built form will screen much of the development from the works. The corridor along which the overbridge runs has undergone substantial change in the 20th century and further change within it will not degrade the fabric and character of the registered parkland. Overall, the green infrastructure associated with the overbridge will seek to minimise impacts on nearby assets where possible. It is considered that the overbridge cannot be reasonably modified to
(b) the development ought to, and could	further limit impacts. The overbridge is located to provide continued
reasonably be carried out elsewhere within the development's permitted limits.	access for the B4113 Stoneleigh Road and Footpath W171. It is considered that there is no alternative location that would be considered more suitable for the overbridge and its use.

Earthworks

4.6.4 As detailed in Section 3 of this Written Statement, earthworks associated with the cutting and embankments, a retaining wall and non-engineering earthworks to facilitate the

realignment of B4113 Stoneleigh Road, Footpath W171 and Stareton Lane as well as maintenance access strips and drainage earthworks are proposed.

4.6.5 Possible grounds for refusal relating to earthworks are set out in Section 3, paragraph 6 of Schedule 17. This is considered in **Table 4**:

Table 4: Earthworks - Assessment of Proposed Development Against Possible Grounds for Refusal

Possible Grounds for Refusal	Assessment of Proposed Development
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,	Engineering earthworks are necessary for the overbridge construction. They will be complimented by landscape earthworks that have been designed to tie the works into the local topography whist facilitating the public rights of way and the needs of ecology. A retaining wall is also necessary to support Stoneleigh Park Access Road. Drainage headwalls and wingwalls are necessary to support the drainage ditches.
(b) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or	The Overbridge and other highway work maintains the existing road infrastructure so there is no change to the free flow of traffic. Safety measures including a vehicle restraint system, kerb and lighting are incorporated into the Overbridge and wider highway design to ensure road safety. All proposals have been discussed with WDC and WCC Highway Department.
c) to preserve a site of archaeological or historic interest or nature conservation value.	The impacts on archaeology, heritage assets and nature conservation are discussed in Table 3. It is considered that the earthworks would not result in a further impact than the overbridge.
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.	The overbridge is located to provide continued access for the B4113 Stoneleigh Road and Footpath W171. It is considered that there is no alternative location that would be more suitable for the overbridge and its use.

Fences and Walls

- 4.6.6 As detailed in Section 3 above, a vehicle restraint system is proposed within the site boundary. The location of the vehicle restraint system is set out on the submitted General Arrangement Plan (Drawing Reference: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602).
- 4.6.7 One possible ground for refusal relating to fences and walls is assessed in **Table 5**.

Table 5: Fences and Walls - Assessment of Proposed Development Against Possible Grounds for Refusal

Possible Grounds for Refusal	Assessment of Proposed Development
That the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.	The vehicle restraint system has been designed for function to provide errant protection and will also separate the greenways from the carriageway. Therefore, it is considered the vehicle restraint system cannot be carried out elsewhere within the site boundary.

Artificial Lighting Equipment

- 4.6.8 As detailed in Section 3 above, lighting columns are proposed within the site boundary.
- 4.6.9 One possible ground for refusal relating to artificial lighting equipment is assessed in **Table 6**.

Table 6: Artificial Lighting Equipment - Assessment of Proposed Development Against Possible Grounds for Refusal

Possible Grounds for Refusal	Assessment of Proposed Development
That the design of the equipment, with respect to the emission of light, ought to, and could reasonably, be modified to preserve the local environment or local amenity. 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.	Roadside lighting is required along the roundabout and leading up to the bridge. In order to minimise light spill above 0.5 lux and to avoid impacting any bats using this feature, woodland planting has been set back from the road. Overall, the lighting has been designed for function and the impact of the lighting has been minimised where possible. It is considered that
	relocating the lighting elsewhere would reduce its effectiveness.

4.7 Conclusion

4.7.1 Taking into account the grounds for refusal in the HS2 Act and the HS2 Design Vision and design policy, it is considered that the proposed overbridge meets the requirements of Section 2 and 3 of the HS2 Act. Green infrastructure and planting will minimise the impact on the surrounding environment and amenity where possible. Therefore, there are no reasonable modifications that can be made to preserve the local environment or local amenity further and as such the development cannot be reasonably located elsewhere within the development's permitted limits.

5 Pre-submission Consultation

5.1.1 Pre-submission consultation with the Local Planning Authority, statutory consultees and other relevant stakeholders is summarised in **Table 7**. Comments raised during the pre-application submission stage by the LPA and responses to these are summarised in **Table 8**.

Table 7: Pre-submission Consultation with key stakeholders

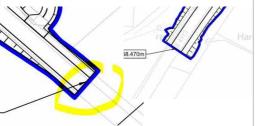
Consultee Name	Consultation Date	Method of Consultation / Attended by	Summary of Consultation Outcome
Warwickshire Country Council	01/04/2021	Presentation delivered by DJV and BBV, and attended by D Lowe (WCC)	Reviewed woodland flow and connectivity from Warwickshire data in relation to the design of green overbridges and explored opportunities for planting of standard trees, for wet/ damp habitats and look into turbulence effect of passing trains on wildlife that may be using green bridges. Ongoing.
Stoneleigh Business Park	08/09/2021	Meeting delivered by DJV and BBV and attended by Stoneleigh Business Park	Reviewed ecology present in area and outlined habitat creation measures to minimise impacts, including the provision of the green bridge.
Warwickshire County Council	16/11/2021	Highway Design Interface meeting attended by HS2, BBV, DJV and WCC.	DJV to examine overlapping level of lighting for the proposal. DJV to provide WCC with an existing case study to evidence low-level bollard use.
Warwickshire County Council	08/12/2021	Highway Design Interface meeting attended by HS2, DJV, WCC and Warwickshire Police.	WCC to share information regarding drainage with relevant WCC team.
Warwickshire County Council	01/03/2022	Highway Design Interface meeting attended by BBV, DJV, WCC.	Agreed that WCC did not oppose the right turn / three lane proposals in this area. WCC to examine footpath proposals in further detail

Consultee Name	Consultation Date	Method of Consultation / Attended by	Summary of Consultation Outcome
			and stated there were no problems in principle.
Warwickshire County Council	10/03/2022	Highway Design Interface meeting attended by BBV, DJV, WCC.	Design proposal for Stareton Lane including six departures agreed by WCC. It was accepted that the proposed layout will be a significant improvement on the existing.

Table 8: Comments Raised by WDC and WCC During the Pre-Application Period and the Applicant's Responses Raised

Tie ins across the drawing, not just those indicated below, should be illustrated more accurately. Lines to existing road networks should align, and it would be beneficial to have adjoining earthworks in grey to show how they meet/continue if applicable.

WDC/WCC Comment



Applicant Response

Accuracy on the GA (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602) is compromised due to difference between the OS base tile and the design which is based on a more recent topographic survey. The proposed works are accurately represented and tie up correctly on a detailed survey plan.

Justification for the amount of MAT in this area is needed. This appears to just run parallel with highway, what is this for? Does it terminate or continue?

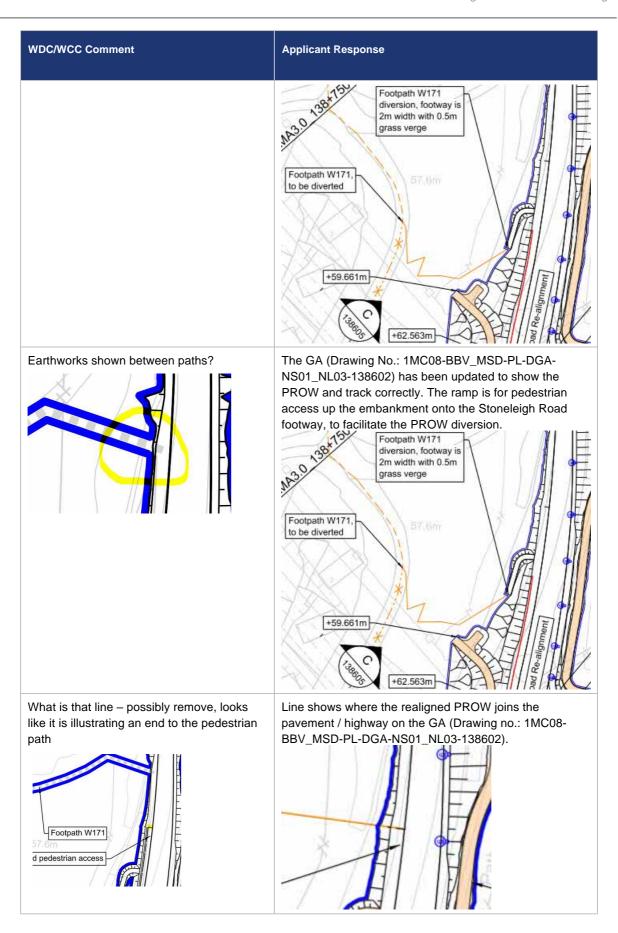


The following information has been added to Section 3.2 of the written statement:

"The Maintenance Access Strips (MAS) on either side of Stoneleigh Road, run alongside the green overbridge hedgerows for most of their length, these hedgerows are key ecological features. Maintenance access is required to maintain the hedgerows and bridge.

The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS

WDC/WCC Comment	Applicant Response
	have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway. The northernmost maintenance access strip (MAS) is required for HS2 access to the drainage ditch. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass except where it ties into the highway where it will have a short section of asphalt
This MAT is again very long and goes to an area that is accessible from the other side, so its necessity needs to be justified within	finish. " This is a MAS so has grass finish. Access strip runs alongside the green overbridge hedgerow for most of its length,
the WS.	The following information has been added to Section 3.2 of the written statement: "The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway."
What is this, where is going, is it required? As illustrated can't access it. path W171 ian access	The GA (Drawing No.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602) has been updated to show the PROW and track correctly. The ramp is for pedestrian access up the embankment onto the Stoneleigh Road footway, to facilitate the PROW diversion.

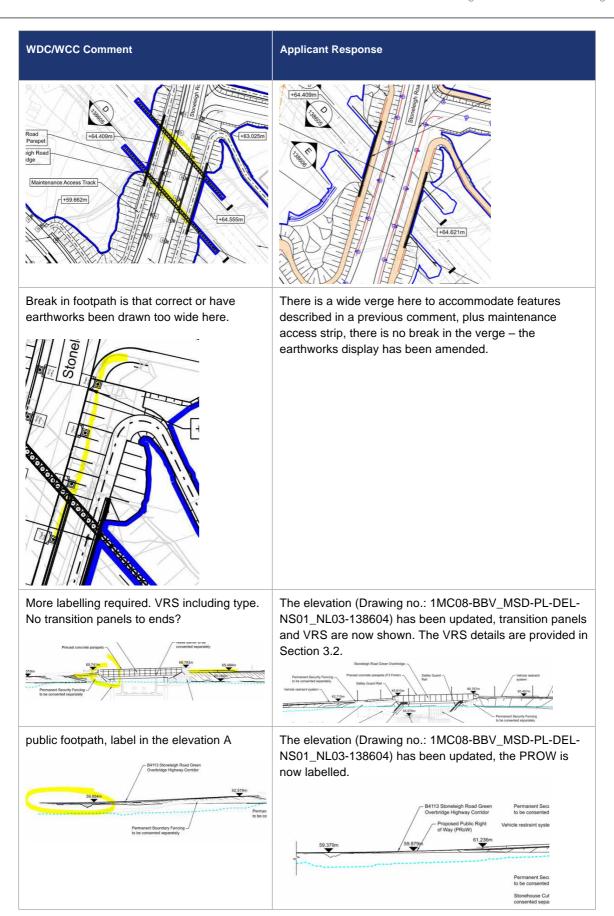


B4113 Stoneleigh Road Green Overbridge

WDC/WCC Comment Applicant Response Earthworks here poorly illustrated The general arrangement drawing (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602) has now been updated to correctly represent the earthworks in this area. +63.025m What are some of these lines / the gap The GA (Drawing no.: 1MC08-BBV_MSD-PL-DGAbetween earthworks and footpath? Labelling NS01_NL03-138602) has now been updated, there is no required or remove. If a VRS needs to be longer a gap between the earthworks and footpath. The labelled. Could be shown in a different VRS is now shown in red. colour? m Why is this so wide? Clarification in note or This wide verge accommodates a 3m wide hedge which within WS required as to what this is. is a key ecological component of the scheme, plus utilities and lighting columns, the shown verge width is therefore required. GA (Drawing no.: 1MC08-BBV_MSD-PL-DGA-Can we please reduce some of the grey within site boundary to improve drawing NS01_NL03-138602) has now been updated, the grey legibility, or use a lighter grey? and then within the site boundary has been reduced and concrete significantly soften the concrete piles so far piles softened. An additional deck plan has also been less prominent in the drawing, and the road produced. can be read clearly. Plan would also benefit

from a label to the grass verges/additional

deck plan.



WDC/WCC Comment Applicant Response Clearer cut through section needed or The elevation (Drawing no.: 1MC08-BBV_MSD-PL-DELreduce some of these lines, very unclear NS01_NL03-138604) has been updated to show the what this is showing, or add a label. design more clearly. VRS? Label required, additional info re The elevation (Drawing no.: 1MC08-BBV_MSD-PL-DEL-NS01_NL03-138604) has been updated and VRS is height and type would be beneficial within Written statement labelled. Height and material details of VRS provided in the Written Statement. The section (Drawing no.: 1MC08-BBV_MSD-PL-DSE-Label. No lighting bollards / columns shown in any elevations, can these be added as NS01_NL03-138605) has been updated to show light they form part of the proposals. Include spot columns. Light bollards are no longer proposed. heights. Sections through bridge need to show and The section (Drawing no.: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138605) has been updated to address label the green verge, the MAT, and pedestrian pavement. May be better taking comment, verge, MAS and footway now labelled. section perpendicular to road rather than track. Are any of these handrails to be consented Safety guard rails are to be consented with this pack. with this app? If not, all need to say to be Additional information has been added to the Written consented separately, and can you show Statement and the safety guard rails have been labelled them in grey so they are not read as part of on the drawings. the proposals. If they are part of this application then clarification is needed on the plan and in the WS as they are not

WDC/WCC Comment	Applicant Response
mentioned anywhere.	
Would like to see a section through here please to see the VRS that's labelled and its position.	An additional section F-F (Drawing no.: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138606) has now been produced.
The surface columns on success of the columns of th	
A section through here to see the MATs is required.	An additional section E-E (Drawing no.: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138606) has now been produced.

WDC/WCC Comment	Applicant Response
Hatching alignment across the drawing is poor – though indicative it does still need to be somewhat accurate. Avoid hatching over MAT and footpaths.	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided for final comment at the Bringing into Use application stage.
Despite being a green overbridge the illustration of this and the green verges are not clear on the drawing. This is also raised in Landscape Officer feedback.	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided at the Bringing into Use application stage.
Lighting needs to be shown on landscape plan as per the GA.	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) does not show lighting as it is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided for final comment at the Bringing into Use application stage.
Additional drawing of deck plan should be submitted (landscape and GA)	An additional deck plan (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607) has been produced.
The Overbridge structure will comprise a single span concrete slab deck spanning approximately 30m, with an overall carriageway width of 11.2m. The Written Statement references two 8m wide greenways either side however this does not correlate with what I am measuring on the plan. That said, the plan is difficult to read and it would be helpful to submit an additional deck plan so the layout of the overbridge can be considered clearly (both GA landscape).	An additional deck plan (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607) has been produced and shows the bridge deck and greenways in more detail.
The elevation through the overbridge also lacks detail, and the arrangement of MAT/verge/pedestrian path/road/VRS is very unclear or not shown at all. This drawing needs to be improved to show proposals	Labelling has been added to the section (Drawing no.: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138605) to clarify the features shown including MAS, verge, footway, VRS.

WDC/WCC Comment	Applicant Response
clearly, and there may be benefit in drawing perpendicular to the road rather than the track for legibility in this instance.	Vision Research System Concerns and John Concerns and John Concerns place Concerns and John Concerns place Concerns plac
Transitional panels at both ends help to reduce the bulk of the asset within the landscape, though it is noted they do not appear to be illustrated (or labelled) in all drawings.	The elevation (Drawing no.: 1MC08-BBV_MSD-PL-DEL-NS01_NL03-138604) has now been revised to show transition panels. Stoneleigh Road Green Overbridge Pleaset concrete parapets (F3 Finish) Safety Guard Rail Permanent Security Favoring to be conserted separately.
The WS states a vehicle restraint system of a height between 0.9m and 1.2m will be located between the carriageway and the green vegetated zones. This is difficult to see in the GA plan, and there are no labels identifying this on the overbridge. I would suggest putting the VRS systems in a different colour and identifying this on the key.	Vehicle restraint systems will be approximately 800mm high on approaches to bridge and could be up to 1.2m high on the bridge. VRS now shown in red as per updated drawing guidance.
I would also like the Written Statement to provide details of the types/design of the VRS, especially if varied types, and appropriate notes to be added to the drawing. I have also suggested additional elevation/sections that would be helpful to see the VRS systems, as highlighted on the drawing notes submitted with this pre-application.	The Written Statement and drawings have now been updated to include details on the type of VRS.
Additional fencing in the form of handrails is suggested on sectional drawings, however there is no mention of this on either the plans or within the Written Statement. Clarification on this is required.	Safety guard rails are now shown and labelled on drawings and detailed in the Written Statement. Para 3.2.14 now includes: "The structure will be constructed using top-down methodology and will utilise a reinforced concrete abutment wall and reinforced concrete wing walls, topped with safety guard rails, aligned parallel to the track to provide ground retention."
Proposals include lighting in the form of 6m and 8m lighting columns, and 0.9m high lighting bollards, as shown on the GA plan. The lighting should be shown in the section/elevation drawings provided with the application. The WS suggests woodland	Lighting is now shown on elevation (Drawing: 1MC08-BBV_MSD-PL-DEL-NS01_NL03-138604) and sections (Drawing: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138605 and 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138606). Lighting bollards are no longer proposed.

WDC/WCC Comment	Applicant Response
planting has been set back from the road in areas but this is contrary to what the landscape plan shows. I am satisfied the lighting is positioned appropriately.	
There are areas of path which seem very wide and the reasoning for this is unknown. There is a large amount of maintenance access track proposed, in some cases it is unclear where they are going or if they are needed. For example, an access track extends from the southern track, past the roundabout, over the bridge, and toward the pumping station, but an alternative access track appears to be available from Stareton Road to the same area. There is another MAT which extends from the access track to Stoneleigh Park and runs along the highway to a turning head. The purpose of this MAT is unclear. Others are short and appear to lead to nowhere, as no context has been given. It is important that further information on the MATs is submitted within the WS with formal submission to justify the need for these tracks as there appears to be a lot in one area.	The accesses shown are required as described The following information has been added to Section 3.2 of the written statement: "The Maintenance Access Strips (MAS) on either side of Stoneleigh Road, run alongside the green overbridge hedgerows for most of their length, these hedgerows are key ecological features. Maintenance access is required to maintain the hedgerows and bridge. The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway. The northernmost maintenance access strip (MAS) is required for HS2 access to the drainage ditch. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass except where it ties into the highway where it will have a short section of asphalt finish."
The applicant should consider reducing the number and width of the access routes, with passing places provided to help minimise landscape and visual impacts. Suggest we provide more detail on the requirement of the MATS, number and type of vehicles to use the MATS etc.	The following information has been added to Section 3.2 of the written statement: "The Maintenance Access Strips (MAS) on either side of Stoneleigh Road, run alongside the green overbridge hedgerows for most of their length, these hedgerows are key ecological features. Maintenance access is required to maintain the hedgerows and bridge. The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-

WDC/WCC Comment	Applicant Response
	terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway.
	The northernmost maintenance access strip (MAS) is required for HS2 access to the drainage ditch. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass except where it ties into the highway where it will have a short section of asphalt finish. "
Where two maintenance accesses are proposed in close proximity to each other,	The following information has been added to Section 3.2 of the written statement:
consideration should be given to rationalising these into a single access.	"The Maintenance Access Strips (MAS) on either side of Stoneleigh Road, run alongside the green overbridge hedgerows for most of their length, these hedgerows are key ecological features. Maintenance access is required to maintain the hedgerows and bridge. The MAS on the eastern side of Stoneleigh Road, running southeast from the junction of Stareton Lane and Stoneleigh Road, provides access to drainage features adjacent to the Pumping Station Building, which will be consented separately. The MAS subsequently ties in to the Pumping Station main access, MAS for the pumping station and balancing pond will be consented separately. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass but have a short section of asphalt finish where they tie into the highway. The northernmost maintenance access strip (MAS) is required for HS2 access to the drainage ditch. The vehicle types will be short wheelbase vans or 4x4 all-terrain vehicles at a frequency of once per year. The MAS have been designed to accommodate the specified vehicles. The MAS will be grass except where it ties into the highway where it will have a short section of asphalt finish. "
Turning and parking areas should be minimised in size as far as is practicable, with consideration given to surfacing these with a porous soil retention system to permit free drainage and the growth of grass to reduce their landscape and visual impact.	It is confirmed by the design team that the turning and parking areas are as small as possible to accommodate the required vehicles. The accesses are mostly grass only and will be free draining, with no visual or landscape impact.
Bellmouths should be reduced in size to accommodate the largest vehicles used on a	It is confirmed by the design team that the bellmouths are as small as possible to safely accommodate the required

WDC/WCC Comment	Applicant Response
regular basis, with consideration given to providing reinforced overrun areas to accommodate larger vehicles used on a less frequent basis.	vehicles and cannot be reduced further.
The entrance to maintenance access tracks should be provided with a consolidated surface for a suitable distance back from the edge of the highway to prevent mud and gravel being carried onto the carriageway. This will be subject to Schedule 4 approval.	The accesses include a paved asphaltic section at the tie ins with main highway works to prevent mud and gravel being carried onto the carriageway, and change to grass after the bellmouths.
These routes should be gated to prevent unauthorised access (with gates hung to open inward – i.e. away from the highway), and surfaced in a permeable material such as stone and left unedged so they appear similar in scale and appearance to adjacent farm tracks. This is to avoid an engineered finish in rural areas.	The routes will be gated, and included a paved asphaltic section only at the tie ins with main highway works, the accesses subsequently will be mostly grass only, to avoid engineered finished in rural areas.
The WS highlights the mitigation measures such as woodland planting, and hedgerows, though information given within the WS does not correspond with the drawings (for example para 3.3.13 states a 3m wide hedge will run over the bridge).	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided for final comment at the Bringing into Use application stage.
	The following text has been added to Section 3.3 Landscape: "The planting designs shown on the LEMP (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) and Deck Plan (1MC08-BBV_MSD-PL-DGA-NS01_NL03- 138607) drawings are still being refined and we would appreciate your initial comment. The final landscape design scheme is not available for review at this stage, but will incorporate initial comments and show all landscape mitigation including planting and seeding designs and mixes, it will be provided for approval at the Bringing into Use application stage."
With respect to the landscape proposals, it is acknowledged these are indicative. Draughting errors have been raised in separate cover which forms part of the preapplication response. The hatch alignment is poor, and although indicative should be somewhat accurate. I note the WS does say that an updated plan is to be expected with	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided for final comment at the Bringing into Use application stage.
formal submission.	Para 3.2.12 now reads: "The planting designs shown on the LEMP (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) and Deck Plan (1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607) drawings are still being refined and

B4113 Stoneleigh Road Green Overbridge

WDC/WCC Comment	Applicant Response
	we would appreciate your initial comment. The final landscape design scheme is not available for review at this stage, but will incorporate initial comments and show all landscape mitigation including planting and seeding designs and mixes, it will be provided for approval at the Bringing into Use application stage.
The Landscape Officer notes the drawings are not clear, and the WS refers to 8m wide greenways and 3m wide hedgerows, neither of which are clearly shown and no hedging is illustrated to the bridge. I would require an additional deck plan with formal submission, showing the arrangement and landscape proposals more clearly. It is therefore difficult to assess the proposals as the WS and drawings provided do not appear to correlate.	An additional deck plan (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138607) has now been supplied and shows the bridge deck and greenways in more detail. The deck plan is indicative-only and is not for approval, the scheme shown on the GA (Drawing No.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138602) is the scheme for which approval is sought.
The landscape proposals show how the planting will connect beyond the line of the application site in the immediate adjacent areas. The Landscape Officer requests that the plan is extended to show how the proposed landscape connects with the wider wooded areas.	The LEMP (Drawing no.: 1MC08-BBV_MSD-PL-DGA-NS01_NL03-138603) is still being refined. The final landscape design scheme, incorporating these initial comments and showing all landscape mitigation including planting and seeding designs and mixes, will be provided for final comment at the Bringing into Use application stage.
The Written Statement indicates that a two- metre wide paved footway will be provided in the road verge to accommodate the diverted public footpath. Confirmation will be required regarding the proposed width and surface type of the section of diverted public footpath linking to the road.	The width and surface type of the section of existing footpath (before reaching Stoneleigh Road) will be as existing, width will be at least 2m with an additional grass verge of 0.5m width. The following information has been added to Section 3.2: "The two footways on the Stoneleigh Park Accesses from the roundabout have 1.5m paved widths, with 0.5m grass verges behind. The footway for the W171 diversion has a 2m paved width with 0.5m grass verge behind".
The Rights of Way team also wish to emphasise that the applicant and any developer carrying out the proposed works must be fully aware of the latest diversion proposals for all affected public rights of way, to ensure these diversion routes are correctly accommodated when the works are carried out.	Understood. Diversion proposals will be accommodated as far as practicable.

WDC/WCC Comment	Applicant Response
WCC Ecology were consulted on this preapplication, and to echo what is mentioned elsewhere in this response, have requested a cross section of the bridge illustrating the location of the hedges and verges either side of the road. Officers are aware that this detail may not be for approval but it is essential for WDC as a competent authority to determine if the structure is able to compensate for the impacts on protected species both in terms of their ability to function as well as their population. This is to conform to WDC's NERC Act and Habitat Regulations duties.	The locations of hedgerows and shrubs have now been labelled on the section of the bridge (Drawing no.: 1MC08-BBV_MSD-PL-DSE-NS01_NL03-138605).
The Ecologist strongly recommends that the design of the green bridge complies with the NE Green Bridge documentation and best practice guidelines and should the applicant fall short of these then they need to demonstrate how brown long-eared bats are likely to use the green infrastructure. The Officer recommends that the examples of green bridges designed in the south of the county are used to influence this design, and provided a particular research paper that may help, which will be sent under separate cover in addition to this pre-application response. Further discussion prior to formal submission if necessary is welcomed.	The WCC IPTAN Fortnightly Engagement/Page Turn Meeting was held on 11/01/24 in which WCC Ecologist (David Lowe) was content with the updated proposed design presented.
The cover description refers to "Vehicle Restraint System" but I cannot find any detail / RRRAP assessment or RSA, can we clarify please? Especially as this scheme involves a green overbridge. William Slater from BBV has also mentioned that the roundabout part of the scheme is being redesigned. (Appropriate to remind of Scope - matter for Sc 4)	Road Restraint RRAP assessments and Stage 2 RSA have been completed and will be submitted in the Schedule 4 consent application as a supporting document. Only parts of the roundabout design have recently been updated, including reduced gradient on the access into Stoneleigh Park, a pedestrian crossing, and additional footways on the Stoneleigh Park accesses.

6 Construction Programme

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

Table 9: Proposed Programme and Sequence of Works

Anticipated Start on Site Date (quarter/year)	Activity	Estimated Completion of Works (quarter/year)
Q4 2022	Site Commencement	Q4 2022
Q3 2023	Cutting, piling platform and piling works	Q1 2024
Q1 2024	Capping beam, Deck, parapet, waterproofing	Q4 2023
Q4 2023	Pavement, earthworks, road furniture	Q4 2025
Q2 2024	Underpass	Q3 2024
2023	Site Completion	Q4 2025

7 Other Consents

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

Table 10: Other Consent Requirements

Consent	Works Requiring Consent
HS2 Act, Schedule 4, Part 1	B4113 Stoneleigh Road Green Overbridge
HS2 Act, Schedule 4, Part 3	Construction and maintenance of highway
HS2 Act, Schedule 17, paragraph 2	B4113 Stoneleigh Road Green Underpass; and Stoneleigh Park Retaining Wall Pumping Station
HS2 Act, Schedule 17, paragraph 9 (Bringing into Use)	B4113 Stoneleigh Road Green Overbridge
HS2 Act, Schedule 33, Part 1	B4113 Stoneleigh Road Green Overbridge; and B4113 Stoneleigh Road Green Underpass
HS2 Act, Schedule 33, Part 5	Permanent works affecting a main river and flood zone 3, attenuation ponds and outfalls into ordinary watercourse. Work within Secondary A (superficial) aquifer and Principal (bedrock) Aquifer
Section 61 Control of Pollution Act 1974	Construction activity related to the overbridge