Shropshire Council
Legal and Democratic Services
Shirehall
Abbey Foregate
Shrewsbury
SY2 6ND

Date: Monday, 23 October 2023

Committee:
Northern Planning Committee

Date: Tuesday, 31 October 2023
Time: 2.00 pm
Venue: Council Chamber, Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND

You are requested to attend the above meeting. The Agenda is attached
There will be some access to the meeting room for members of the press and public, but this will be limited. If you wish to attend the meeting please email democracy@shropshire.gov.uk to check that a seat will be available for you.

Please click here to view the livestream of the meeting on the date and time stated on the agenda

The recording of the event will also be made available shortly after the meeting on the Shropshire Council Youtube Channel Here

The Council's procedure for holding Socially Distanced Planning Committees including the arrangements for public speaking can be found by clicking on this link:
https://shropshire.gov.uk/planning/applications/planning-committees

Tim Collard
Assistant Director – Legal and Governance

Members of the Committee
Joyce Barrow
Garry Burchett
Geoff Elner
Ted Clarke
Steve Charmley
Julian Dean
Roger Evans
Nat Green
Vince Hunt (Vice Chairman)
David Vasmer
Paul Wynn (Chairman)

Substitute Members of the Committee
Roy Aldcroft
Gerald Dakin
Steve Davenport
Mary Davies
David Evans
Julia Evans
Pamela Moseley

Your Committee Officer is:

Ashley Kendrick Democratic Services Officer
Tel: 01743 250893
Email: Ashley.kendrick@shropshire.gov.uk

AGENDA

1 Apologies for Absence

To receive apologies for absence.

2 Public Question Time

To receive any public questions or petitions from the public, notice of which has been given in accordance with Procedure Rule 14. The deadline for this meeting is 5.00 p.m. on Wednesday, 25th October 2023.

3 Disclosable Pecuniary Interests

Members are reminded that they must declare their disclosable pecuniary interests and other registrable or non-registrable interests in any matter being considered at the meeting as set out in Appendix B of the Members' Code of Conduct and consider if they should leave the room prior to the item being considered. Further advice can be sought from the Monitoring Officer in advance of the meeting.

4 Welshpool Road, Bicton Heath, Shrewsbury, Shropshire (21/00924/EIA) (Pages 1 - 218)

North West Relief Road scheme. Comprising - construction of 6.9km single carriageway (7.3m wide) road; severance of local roads and footpaths; provision of combined footway/cycleway; erection of three bridged structures over carriageway; diversion of existing bridleway/footpath via an underpass; climbing lane on westbound approach; 670m long viaduct; bridge over railway; two flood storage areas; provision of two new roundabout junctions and improvements to two existing roundabouts; associated traffic calming measures, landscaping and drainage schemes.

5 Date of the Next Meeting

To note that the next meeting of the North Planning Committee will be held at 2.00 pm on Tuesday 7 November 2023 in the Shrewsbury Room, Shirehall, Shrewsbury.

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AGENDA ITEM

Committee and date
NORTHERN
31st October 2023

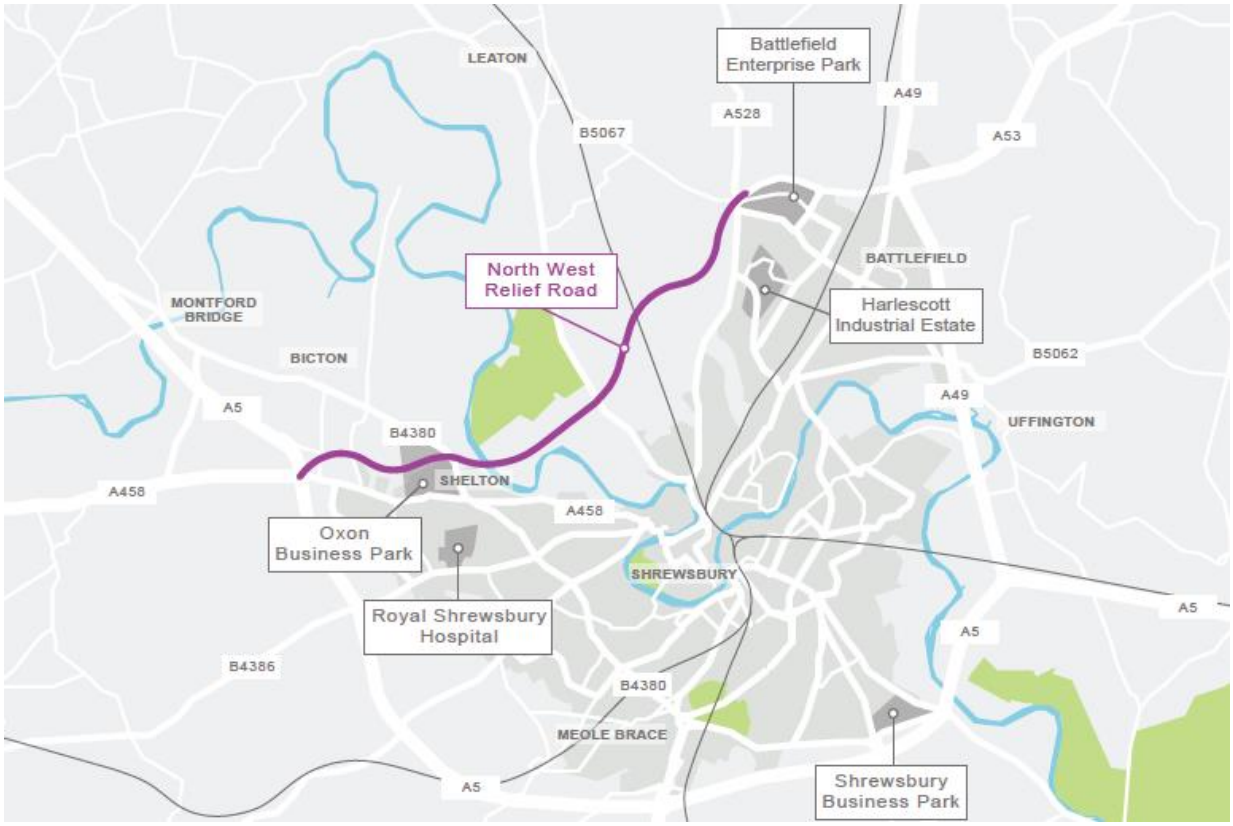
Development Management Report

Responsible Officer: Tracy Darke, Assistant Director of Economy & Place

Summary of Application

Application Number: 21/00924/EIA	**Parishes:**	Bomere Heath Bicton Shrewsbury Town
Proposal: North West Relief Road scheme. Comprising – construction of 6.9km single carriageway (7.3m wide) road; severance of local roads and footpaths; provision of combined footway/cycleway; erection of three bridged structures over carriageway; diversion of existing bridleway/footpath via an underpass; climbing lane on westbound approach; 670m long viaduct; bridge over railway; two flood storage areas; provision of two new roundabout junctions and improvements to two existing roundabouts; associated traffic calming measures, landscaping and drainage schemes		
Site Address: Welshpool Road Bicton Heath Shrewsbury Shropshire		
Applicant: Shropshire Council (Highways and Transportation)		
Case Officer: Mike Davies	**email:** mike.daves.planning@shropshire.gov.uk	

Grid Ref: 344830 – 313501



Recommendation:- **Approve** subject to additional conditions and the final wording of conditions being delegated to the Assistant Director of Economy and Place for agreement with statutory consultees and a signed S106 obligation from the relevant landowners as set out in Appendix 1 to deliver off site mitigation and the compensation strategy.

REPORT

1.0 THE PROPOSAL

1.1 This application seeks planning approval for the North West Relief Road (NWRR) which will run from the Churncote Roundabout in the east to Ellesmere Road roundabout in the west. The proposals are an amalgamation of the Oxon Link Road and the North West Relief Road into a single planning application. The description of the proposed development is summarised below.

1.2 "*The Proposed Scheme comprises a new 7.3m wide single carriageway all-purpose 6.9km long road with a permitted speed of 60mph, along with associated landscaping and drainage. As a result of the severance of a number of local roads, footpaths and public rights of way (PRoW), a combined footway and cycleway would be provided, adjacent to the carriageway, with linkages to existing non-motorised user routes. The Proposed Scheme includes three new structures over the carriageway. Clayton Way would be diverted over a new bridge and would be designed to accommodate vehicles and all non-motorised users and the existing PRoWs in proximity to Shepherd's Lane and Marches Way, would be diverted onto new bridges. In addition, at the B4380 Holyhead Road Roundabout the existing bridleway and footpath would be diverted*

underneath the Proposed Scheme via an underpass.

1.3 *A carriageway would cross the River Severn and floodplain on an approximately 670m long viaduct. A second bridge crosses the Shrewsbury to Chester railway. Two flood storage areas would be provided to compensate for the loss of flood storage.*

1.4 *The Proposed Scheme includes two new roundabout junctions (one at the B4380 Holyhead Road and the other at the B5067 Berwick Road) and the improvement of two existing roundabouts (the A5 Churncote Roundabout and the A528 Ellesmere Road Roundabout). Traffic calming measures would be installed along Welshpool Road".*

1.5 The proposed design of the NWRR remains largely the same as the original submission in February 2021. The design changes are mainly limited to the area between Holyhead Road and east of the Viaduct. The changes include the removal of the climbing lane from the viaduct and the inclusion of an extended earthwork embankment into the floodplain, enabling a shorter viaduct (580m rather than 670m). The area that would store water in the event that the River Severn floods (called a flood storage area), located east of the River Severn, has been increased due to the additional bridge structures within the floodplain. The application site includes for an increased flood storage area and to accommodate new access routes as well as additional planting to support wildlife. The viaduct sides or parapets have been changed from concrete to steel and the height has reduced slightly on the north side.

2.0 BACKGROUND AND HISTORY

2.1 The construction of a North West Relief Road has been considered as a possible means of addressing transport issues facing Shrewsbury for over 30 years. Several potential route options were identified in 1988, with a further two route options identified in 1991, both running between the A5/A458 at Shelton and the A528 Ellesmere Road.

2.2 Following further options assessment work in 1994 and 1997, a report was presented to Shropshire County Council's Environment Planning and Transport sub-committee in February 1997 recommending that the NWRR should be developed as a single carriageway road, without the Ellesmere Road-Spring Gardens link. As a result, the Council's Transport Policies and Programme confirmed that the NWRR "*should not include a link between Ellesmere Road and Spring Gardens, as this would be difficult to justify in economic terms"*.

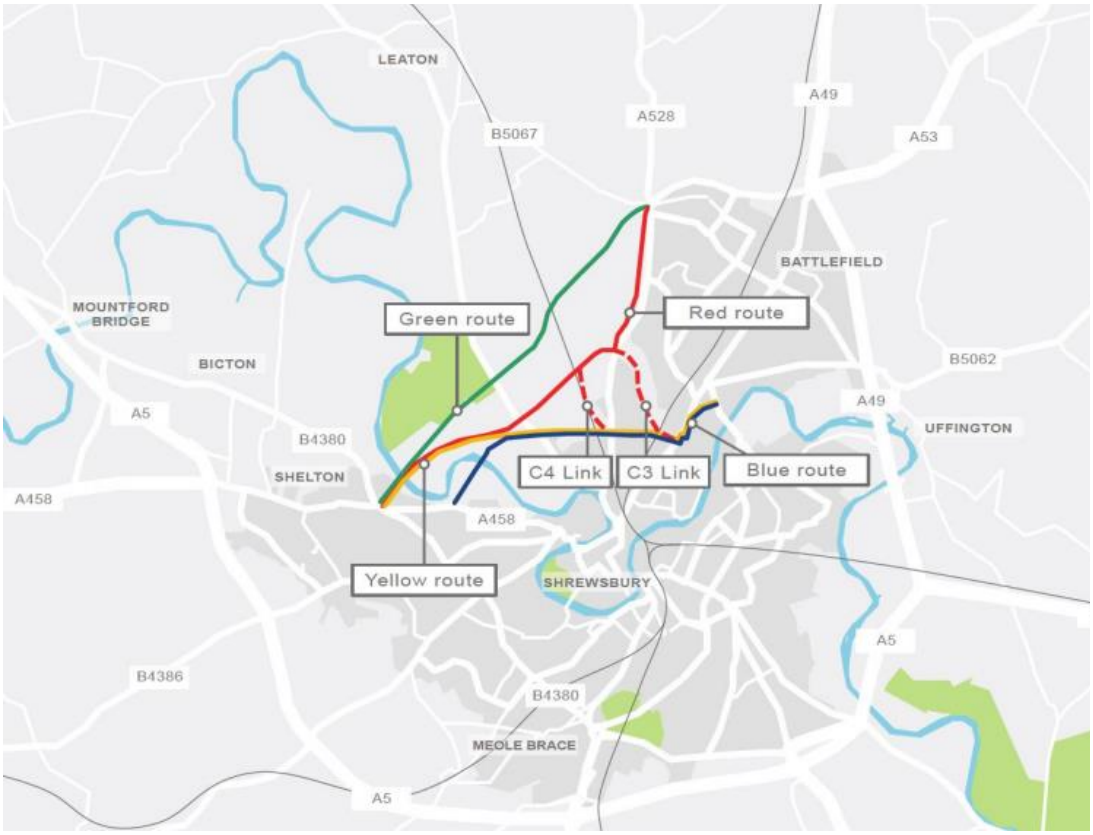
2.3 The initial generation and appraisal of options took place over a long period of time, and according to the standards of the day. This section summarises the options which were identified prior to 2001.

2.4 Road options identified (1980-2001)
By the mid-1980s the idea of a new road link between the northern and western parts of the town was being considered as a possible solution to traffic problems in Shrewsbury. A technical report, published by Shropshire

County Council in 1988, identified a number of route options which were evaluated according to the standards of the day. Public consultations were held to assess support for the scheme, and to help identify possible routes for a north-west relief road (NWRR).

2.5 The route options identified by the end of the 1980s are described below and shown on an indicative map.

- Green Route – a new road between the A5/A458 at Shelton and the A528 Ellesmere Road near Harlescott Lane
- Red Route – a new road between the A5/A458 at Shelton and the A528 Ellesmere Road, closer to the town centre, together with an online improvement of A528 Ellesmere Road to Harlescott Lane
- Red Route + C3 – as above, but with the addition of a link between A528 Ellesmere Road and the (then) A49 Spring Gardens following the line of the old river bed and bridging the Shrewsbury-Crewe railway line.
- Red Route + C4 – as Red, but with the addition of a link between the NWRR and the (then) A49 Spring Gardens, having a junction with A528 Ellesmere Road, and crossing the Shrewsbury Crewe railway line, on a more southerly alignment
- Yellow Route – a new road between the A5/A458 at Shelton and the (then) A49 Spring Gardens, having a junction with A528 Ellesmere Road, and crossing the railway line, on a more southerly alignment
- Blue Route – as above, but starting from a point on The Mount, east of Shelton.



Route options (1988)

2.6 The 1988 technical report describes the cost-benefit analysis of these options, using the models available at that time. It was concluded that the "Red + C3" route option was the best of the six road options considered, as it offered the highest net present value (benefits minus costs). Details of the analysis are given in the Options Assessment Report (OAR.)

2.7 The Red + C4 route option was not considered further at this stage, as it was found to have adverse impacts on proposed housing development. The "blue" and "yellow" inner route options were considered the least acceptable because of their adverse impact on local roads and the built environment.

2.8 An additional option was identified in Shropshire County Council's TPP submission for 1992/93:

- Green Route + C3 – a new road between the A5/A458 at Shelton and the A528 Ellesmere Road near Harlescott Lane, together with a link to Spring Gardens, crossing Ellesmere Road and following the line of the old river bed and bridging the Shrewsbury-Crewe railway line.

2.9

- Whilst "Red + C3" remained the preferred option, the introduction of a "Green + C3" variant reflected the views of some consultees that an "outer" route would be more acceptable. The inclusion of a connection to Ellesmere Road and a link to Spring Gardens addressed some of the deficiencies of the original "Green" route. However, a further feasibility study and economic assessment confirmed "Red + C3" as the preferred option for inclusion in the County Council's 1992 TPP submission.

2.10 A cost-benefit analysis in January 1997, using the traffic model available at that time, showed that including the "C3" link (between the A528 Ellesmere Road and A5112 Spring Gardens) would reduce the overall benefit-cost ratio45 of the NWRR, because of the high cost of providing a new railway bridge. In July 1997 the County Council's TPP46 confirmed that the NWRR "should not include a link between Ellesmere Road and Spring Gardens, as this would be difficult to justify in economic terms", and this was later reflected in the County Structure Plan.

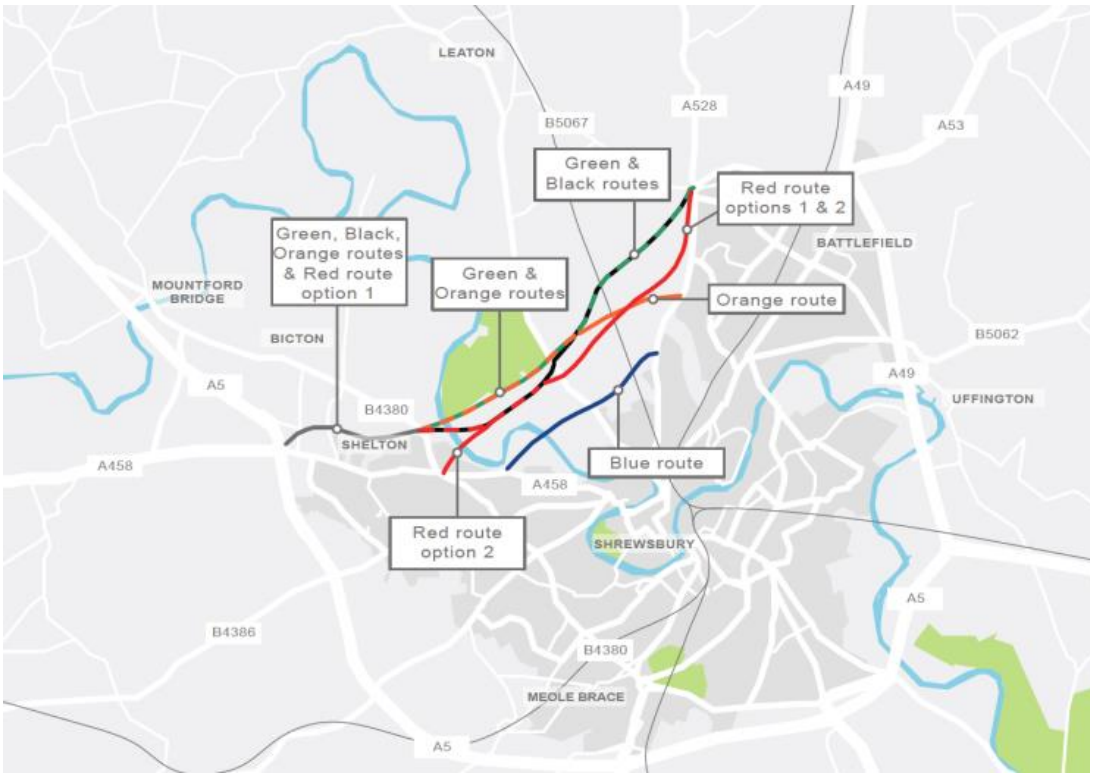
2.11 In 1992, new bypasses for the A5 and A49 trunk roads were opened to the south and west of Shrewsbury, connecting the town to the M54 motorway (which had been completed in 1985). This removed long-distance through traffic from the "old" A5/A49 route (the partial ring road described above), enabling it to function better as a local distributor road. Despite these benefits, the trunk road bypasses did not address long-standing problems on the northern and western approaches to the town.

2.12 In order to maximise the benefits of a NWRR by connecting it to the new trunk road bypasses, additional options were identified: ϒ Battlefield Link Road – a direct connection between the northern end of the proposed NWRR at Elllesmere Road and the new A49 bypass, at the A49/A53

junction. ϒ Alternative junction at Shelton – an alternative location for the junction between the western end of the proposed NWRR and the A458.

2.13 Although originally conceived as an extension to a NWRR, the Battlefield Link Road (A5124) was actually completed in 1998. It provides access to a major employment area – the Battlefield Enterprise Park – and allows traffic to avoid the level crossing on Harlescott Lane.

2.14 An investigation of alternative junction locations at the western end of the NWRR in 1996 initially confirmed the plan for a tie-in at The Mount (A5/A458)48. This has been superseded by the proposal for the Oxon Link Road.



NWRR route options for assessment in 2004

2.15 The routes fell into two distinct groups:

- Blue and Red (Option 2) were shorter routes which rely on parts of the existing road network.
- Green, Black, Orange and Red (Option 1) were longer routes which would provide a completely new road starting from the A5/A458 Churncote roundabout on the A5 bypass, reflecting the public view, expressed in the 2003 consultation that A458 Welshpool Road should be relieved of through traffic.

Routes starting from points further west than Churncote were not short-listed, as they would be less effective in traffic terms, whilst a Landscape Assessment concluded that they would have a large adverse impact on landscapes associated with the River Severn and substantial visual impacts for outlying communities.

2.16 All options were shown to have produced benefits significantly in excess of their costs. The Blue Route produced the lowest benefits overall but - being the shortest route - it also produced the highest Benefits to Cost Ratio (BCR). To a lesser extent, the same was true of the Orange and Red Option 2 routes which produced a slightly higher BCR than the remaining routes. At this level of detail, however, there was little clear distinction between the Green, Black and Red (Option 1) routes in terms of their economic performance. This was unsurprising, as these routes connected to the existing network at the same points and were similar in cost.

2.17 A Stage 2 Environmental Assessment for the route options was published in 2005, and quoted in detail in the 2007 Preferred Route Report. The report looked at a number of factors including noise, air quality, climate change, landscape, townscape, heritage, ecology, water, agriculture, accessibility and road transport.

OVERALL PREFERRED ROUTE
The results of the further investigations into the three possible routes are summarised below:
Traffic: No significant difference
Air quality: No significant difference
Landscape: Black route preferred
Heritage: No significant difference
Biodiversity: Black route preferred
Flood risk and drainage Black route preferred. Green route unacceptable
Groundwater: No significant difference
Overall: Black route preferred

2.18 The Black route was preferred overall because it is better able to deal with the key local issues. The Black route is the most expensive of the options considered. This may be regarded as the cost of selecting a route which has least impact on a very sensitive local environment. A similar value judgment was made when shorter (and cheaper) route alternatives were rejected in favour of an outer corridor of routes. Work undertaken since publication of the Preferred Route Report indicated that some minor modifications should, however, be made to the Black Route, to minimise environmental impact on the Severn Trent water intake and water treatment works, and on Hencott Pool.

2.19 As set out in the Options Assessment Report, which accompanied the Outline Business Case (OBC) submission in 2017, a comprehensive options appraisal exercise was undertaken in order to determine whether there were any viable alternatives to constructing a new road and to identify which routes would be most acceptable to local people and stakeholders. A number of road-based options were considered, including a new road within the corridor protected in the adopted Shrewsbury and Atcham Local Plan 2001, route options previously considered and additional route options identified by consultees.

2.20 In terms of alternatives to a new road, options considered included:
Development of a light rail or guided bus transit system
Improvements to the existing bus network;
Improvements in the existing passenger rail system;
Investment in cycling infrastructure;
HGV improvements, including rail freight
Demand management measures, including car park pricing strategy, traffic management and travel plans for schools and businesses; and
A package of measures to encourage non-car use including investment in bus, rail, cycling and walking facilities.

2.21 A number of opportunities presented by the construction of the NWRR, including improved access to the rail station; bus priority measures; and enhanced pedestrian and cycle facilities were also taken into account in the assessment.

2.22 The overall conclusion was that non-road options alone would be unlikely to deliver equivalent benefits to the NWRR, but that a package of demand management measures, including road pricing and investment in alternative modes, especially public transport, could have a significant impact and would be worth investigating. It was also concluded that the NWRR could itself provide significant opportunities for the delivery of improvements in non-car accessibility.

2.23 The delivery of the North West Relief Road has long been an aspiration of Shropshire Council. The proposed scheme combines two previously separated legacy schemes:

- North-West Relief Road (NWRR) Legacy Scheme – an earlier design iteration of the Proposed Scheme, running from B4380 Holyhead Road to Battlefield Link Road; and
- Oxon Link Road (OLR) Legacy Scheme – running from the A5 Shrewsbury Southern Bypass, at Churncote Roundabout, to B4380 Holyhead Road.

2.24 A detailed planning application was submitted in July 2018 for the Oxon Link Road Legacy Scheme (Reference: 18/03166/EIA), however this was formally withdrawn on 30th August 2019. The reason for this application being withdrawn by the applicant was due to DfT funding the wider NWRR additional section at that time. Following the withdrawal of the Legacy OLR planning application, the applicant decided to pursue the two previously separated schemes as a single project with a combined planning strategy for reasons of economy and speed.

2.25 The proposed scheme is a combination of the NWRR and OLR routes. During the preliminary design stage, the route and certain design elements of the proposed scheme were subject to changes, which were influenced by environmental constraints and opportunities as well as engineering and operational/maintenance requirements.

2.26 Following extensive consultation with the Environment Agency, it was

agreed that the proposed scheme could incorporate an extended raised embankment into the floodplain of the River Severn for a distance of 300m to support the Environment Agency's aspiration to deliver a flood alleviation and water management scheme north of Shrewsbury. However, the concept of a combined scheme took longer to progress than originally anticipated and as a result put the proposed scheme's funding at increased risk, therefore it has progressed as a stand-alone road scheme.

2.27 The application is accompanied by an Environmental Statement (ES) under schedule 2 of the EIA Regulations. There were no material changes to the proposed development during the application process. However, several supporting documents, including parts of the ES, were updated during the application process to clarify various matters. The ES has been independently reviewed on behalf of the local planning authority and been found to be comprehensive and robust.

3.0 SITE LOCATION/DESCRIPTION

3.1 The north-west hinterland of Shrewsbury is generally undeveloped and comprises mainly agricultural land. Settlement is sparse, with small, isolated farmsteads and properties scattered through the landscape. The River Severn meanders through this area, with wooded valley slopes and extensive floodplains. The area is crossed by the Shrewsbury to Chester railway line in addition to footpaths and other PRoWs.

3.2 The site extends between National Grid Reference (NGR) SJ 44370 13510 in the west to SJ 49942 16943 in the northeast and envelops an area of approximately 120 hectares. The site location is shown in Drawing Number 70056211-WSP-GEN-AS-DR-CH-01001 (Site Location Plan) and an aerial view of the site is provided in Figure 1.2: Aerial View of the Site in Volume III of the ES.

3.3 The proposed scheme comprises land which is predominantly rural in character, with agriculture being the main use. Generally speaking, land to the south is dominated by residential properties forming the outskirts of Shrewsbury whilst land to the north is rural in character. The communities of Calcott, Bicton, Bicton Heath, Bowbrook, Shelton, Rosehill, Gravel Hill, Coton Hill, Mount Pleasant and Battlefield are all near the site.

3.4 Forming part of the general setting to the NWRR are a variety of commercial, leisure and residential uses, including the Oxon Park and Ride; the Oxon Hall Touring Park; Oxon Business Park; and the Battlefield Enterprise Park.

3.5 There are also a number of features of environmental interest within and surrounding the site, including:

- Harlescott Grange moated site scheduled monument (approximately 900m to the east of the Site);
- Berwick Park Grade II Registered Park and Garden, which is located between the River Severn and the B5067 Berwick Road to the north of the Site. The Berwick Park Estate also manages open areas for bird shooting

with regular game-keeping activity;

▪ 50 listed buildings (five at Grade II* and 45 at Grade II) within 1km of the Site;

▪ Battle of Shrewsbury 1403 Registered Battlefield (approximately 500m to the north east of the Site);

▪ Alkmund Park Wood, an Ancient Replanted Woodland, located immediately adjacent to the north of the site.;

▪ Hencott Pool Midland Meres and Mosses (Phase 2) Ramsar (approximately 200m north of the Site);

▪ Bomere, Shomere and Betton Pools Site of Special Scientific Interest (SSSI) (approximately 650m south of the Site);

▪ Old River Bed SSSI (a geological feature approximately 850m east of the Site);

▪ The River Severn at Montford SSSI (approximately 1.75km west of the Site);

▪ A total of 11 non-statutory designated biodiversity sites located within 2km of the Site including the River Severn (Montford Shrewsbury) Local Wildlife Site, which is located within the Site;

▪ A total of seven ancient woodlands located within 2km of the Site including Alkmund Park Wood, an Ancient Replanted Woodland, located immediately adjacent to the north of the Site;

- A total of 9 trees, 2 groups of trees and 2 areas of trees protected under three separate tree preservation orders.
- 37 veteran trees were identified within the study area during the original arboricultural survey, including 5 veteran trees recorded on the Ancient Tree Inventory. A further 3 veteran trees were identified during subsequent arboricultural surveys.

▪ A number of protected / notable species (identified through desk and field survey work), including:

- Badger (Meles meles);
- Bats (foraging and roosting, all species);
- Breeding birds (all species);
- Brown hare (Lepus europaeus);
- Amphibians including great crested newt (GCN) (Triturus cristatus) and common toad (Bufo bufo);
- Harvest mouse (Micromys minutus);
- Hazel dormouse (Muscardinus avellanarius);
- Hedgehog (Erinaceus europaues);
- Riparian mammals: otter (Lutra lutra) and water vole (Arvicola amphibious);
- Reptiles;
- Terrestrial invertebrates;
- Aquatic invertebrates; and
- Fish.

▪ The River Severn main river (including the surface water intake at Shelton Roughs) and ordinary watercourses including Alkmund Park Wood Stream

and Hencott Pool Stream;

▪ The '*Permo-Triassic Sandstone East Shropshire*' groundwater water body (GB40901G300100) and three associated SPZs;

▪ Flood Zones 2 and Flood Zone 3 associated with the River Severn; and

▪ NineteenPublic Rights of Way (PRoW), including Public Bridleway, Restricted Byway and footpaths within 1km of the site impacted.

- Drinking Water Source Protection Zone (SPZ).

3.6 The local highway network within and adjacent to the Site includes, but is not limited to, the A458 Welshpool Road, A5 Shrewsbury Southern Bypass, A528 Ellesmere Road, A5124 Battlefield Link Road, B4380 Holyhead Road, B5067 Berwick Road, Calcott Lane, Shepherd's Lane, Shelton Lane, Gravel Hill Lane, Hencote Lane, Huffley Lane and Gravel Hill Lane. Local bus services include, but are not limited to, the 70A, 74, 74A, X75, 501 and 576.

4.0 REASON FOR COMMITTEE/DELEGATED DETERMINATION OF APPLICATION

4.1 This is a complex and major application which, in the view of the Assistant Director of Economy & Place in consultation with the committee chairman or vice chairman should be determined by the relevant Planning Committee.

5.0 REPRESENTATIONS

5.0.1 Due to the large-scale nature and significant public interest in the proposed development and its potential impacts, several rounds of consultation have been undertaken. This included external statutory consultees, Shropshire Council consultees, parish councils and the wider public. Three public consultations took place to advertise changes to the proposals as the application progressed in response to feedback received.

5.0.2 11 site notices were initially displayed in visible locations along the route of the proposed road for a consultation beginning on 2nd March 2021. These gave anyone who wished to comment 40 days to do so. This was longer than the statutory period required due to Covid-19 restrictions that were in place at that time. The first consultation ended on 11th April 2021.

5.0.3 After plans for the proposal were amended following the first round of consultation, a second consultation began on 6th September 2021 where site notices were displayed again in the same locations. This site notice period only lasted for the statutory 30 days for Environmental Impact Assessment (EIA) development, ending on 6th October 2021.

5.0.4 A final consultation commenced was started on 7th February 2023 for the statutory period of 30 days for EIA development, ending on 10th March 2023.

5.0.5 This section outlines consultees most recent responses accounting for amended plans, public comments, parish councils most up to date response as well as a list of submitted comments that are not material

planning considerations.

5.1 Town/Parish Councils Comments

5.1.1 **Bicton Parish Council**
26th April 2021 – Object

- The impact on Bicton parish of such a major road development which will effectively split the parish will create significant noise and bring increased air pollution to our rural village.
- Question the need for the road and how it will be funded.
- Concern about accuracy of traffic modelling and assumptions.
- Concerns about the junction with Churncote Roundabout in relation to poor visibility, highway safety, traffic queuing, pedestrian safety, no traffic light control, increased traffic.
- Recognises that there have been changes to the plans that are considered to be improvements to the original plans e.g. the footbridge to the east of Shepherds Lane but there are still some concerns in relation to cyclists and pedestrians sharing the same space, the maintenance of the exit of Featherbed Lane onto the Bicton side of the Holyhead Road is essential for walkers from Bicton.
- The Shepherd's Lane proposed footbridge which is in close proximity to the Grade II listed Oxon Hall reaches a height of 8 metres. There is no plan in place to protect the privacy of the nearby houses which will be adversely affected by the bridge.
- The provision of pedestrian access across the viaduct may not be safe as it is not separated from the road by barriers. The length of the viaduct raises the question whether this footway is necessary or desirable.
- Whilst the planned improvements to the Welshpool Rd could generally be considered to be positive there are a few aspects of concern such as build out east of Shepherds Lane, the removal of the left turn lane when joining the B4380 from Welshpool Rd.
- The application does reference other committed developments but gives no indication of whether there will be any joined up planning to manage the impact of significant developments taking place simultaneously across Bicton parish. The activity planned around the new Holyhead Rd roundabout is a particular concern for Bicton parish residents given the potential disruption throughout the development of the project and thereafter throughout the whole time in operation as this will become the only route in and out of Bicton.
- Concern about assumptions in the Transport Assessment and their accuracy.
- Further concerns about environmental impacts being understated in relation to noise, air and light pollution.
- Impacts on drainage and watercourses are unclear, along with the borehole at STW offices.
- Concern at impact on biodiversity, through loss of trees and hedgerows, along with impacts on birds, mammals, reptiles, bats, fish and amphibians.

- Fragmentation of farms.

5.1.2 **Bomere and Heath Parish Council**

18th March 2023 – Supportive in principle

The Parish Council's majority are in support of this application. However, there are concerns that if speed limits are not reduced on the Holyhead Road and through Forton Heath – any slowing of traffic on the A5 – may result in vehicles being redirected by their drivers sat nav to the old rat run of Forton Heath – Fitz -Leaton -to Harlescott. The Council is liaising with SC in relation to speed reduction measures for Forton Heath. Currently the speed limit from Montford Bridge – through Forton Heath is 60 mph – we are awaiting confirmation of what amended speed limit will be in operation in Forton Heath in the future.

5.1.3 **Shrewsbury Town Council**

16th June 2021- Object

This Council is strongly opposed to the creation of the North West Relief Road and hence objects to the current planning application. Furthermore, we pledge to do all in our power to oppose any further associated developments.

We believe the planned road contradicts Shropshire Council's recent welcome commitment to 'policies that follow the hierarchy of traffic reduction, modal shift and electrification' and so call on Shropshire Council to halt its processes leading to the North West Relief Road and instead divert capacity to producing a plan for sustainable transport that will both address congestion issues, and support inclusive connectivity, health, and rapidly reduced greenhouse gas emissions.

In addition, Shrewsbury Town Council requests that Shropshire Council makes a full appraisal of sustainable alternatives to the North West Relief Road in the light of the declared climate emergency and the effects of the COVID-19 pandemic.

5.2. Other Parish/Town Council Representations

5.2.1 **Bridgnorth Town Council - Object**

On 26th April 2022 Bridgnorth Town Council voted to formally object to construction of the Northwest Relief Road around Shrewsbury on the following grounds:

1) Bridgnorth is reliant on funding from Shropshire Council to ensure that it continues to be a vibrant town and that its residents benefit from a full range of Council services. We have, in recent months, seen that some of these vital services have been undermined, such as last year's closure of our Highway depot. Shropshire council is consulting on its financial strategy which shows a £50m funding shortfall with taxpayers paying more for reduced services, a situation the council's chief financial officer has described as 'unsustainable' and outlined cuts to highways, rubbish collections, swimming pools, libraries, youth support and other services*

2) It appears that the County Council now plans to fund at least £28.5M for

the road (i.e. £220 per household in Shropshire). Up to £8.5M of potential overspend has already been identified by the Council. Overspends of 20% are not uncommon on this type of project. All of this overspend will have to be paid for by Shropshire residents, including those of Bridgnorth, yet with no additional service provision provided for the town.

3) The construction of the NWRR is entirely at odds with the declared Climate Emergency and Climate policies of both Shropshire Council and the Bridgnorth Town Council Climate Motion. Increased Carbon emissions created by this road will add to the already worsening climate related flooding that Bridgnorth is already dealing with.

Urgent Action requested by Bridgnorth Town Council of Shropshire Council to:

1) withdraw its plans to construct the Northwest Relief Road and ensure that Shropshire Council resources are applied fairly across the whole county including Bridgnorth.

2) realise their target of being Net Zero by 2030 to help safeguard the lives and livelihoods of the residents of Bridgnorth who are already experiencing climate related harm through increased flooding.

5.2.2 **Great Hanwood Parish Council – Object**

The parish council objects on the grounds of adverse impacts on climate change, disruption during construction, adverse impact on air quality, creation of new rat runs, SC liability for overspend.
The road will not resolve town centre traffic issues and money could be spent on sustainable transport issues and improving other pinch points such as “Dobbie’s roundabout”. Alternatives such as re-opening parts of the rail network could be considered.

5.2.3 **Ruyton XI Town Council – Support**

This application was considered at an extra ordinary Parish Council meeting on 27th April 2021, where it was resolved to support the application.

5.2.4 **Ludlow Town Council – Object**

Ludlow Town Council object to the NWRR Planning application following the submission of new documents to the planning portal by Shropshire Council in February 2023. The Council had hoped that the council would amend the scheme to acknowledge the huge concerns over the project’s spiralling costs; its inability to sustainably tackle Shrewsbury’s traffic congestion; its devastating environmental impact; and the record-breaking level of public concern that has been voiced since it was announced in 2019.

However, the council has failed to address the concerns of members of the public and local organisations including Shrewsbury, Oswestry, Bridgnorth, and Ludlow town councils. Ludlow Town Council’s previously communicated concerns are that Shropshire Council should urgently disinvest from the environmentally and financially destructive North West Relief Road. The scheme is undemocratic in view of the huge weight of public and professional opposition, runs counter to all the COP26

proposals, is based on historic, now incorrect, assumptions about the growth in car numbers and will make us one of the most fossil fuel polluting counties in the UK.

The new plans show that the application area is now around 40% larger than originally proposed, with additional new access roads. This will cause even more damage to irreplaceable veteran trees, hedgerows and vital wildlife habitats, making a mockery of Shropshire Council's claim to be taking the climate and nature crises seriously. Shropshire Council declared a climate emergency in 2019 and committed to reducing emissions across the county.

The council has also expressed support for the Climate & Ecology Bill, which seeks to put into law the need to urgently halt the climate and nature crises. The NWRR's carbon footprint and destruction of nature cannot be squared with either of these aims. Given Shropshire Council's failure to reconsider this scheme in any meaningful way, Ludlow Town Council would like to reiterate its ongoing objection to the NWRR.

5.2.5 **Montford Parish Council – Support**

Support the proposals.

5.3 **Consultee Comments**

5.3.1 **Canal and River Trust – Neutral**
The Canal & River Trust is a statutory consultee and advise that the application falls outside the notified area for its application scale There is no requirement to consult them in their capacity as a Statutory Consultee.

5.3.2 **Network Rail – No Objection**
Network Rail has no objection in principle to the above proposal. Asset Protection are in the lead on this scheme regarding railway interface /new structures for engineering design and construction with property dealing with the easement and land issues.

From the bridge drawing provided it looks as expected and provides plenty of clearance to future proof the asset. The developer should continue to engage with our Asset Protection team on this application.

5.3.3 **National Air Traffic Services (NATS) – No objection**
NATS confirms it operates no infrastructure within 10km of this application. Accordingly, we anticipate no impact from the proposal and have no safeguarding objections to the application.

5.3.4 **Ministry of Defence – No objection**
Raises no safeguarding objections to the proposals.

5.3.5 **Shropshire Fire and Rescue – No comment**

As part of the planning process, consideration should be given to the information contained within Shropshire Fire and Rescue Services Fire Safety Guidance for Commercial and Domestic planning Applications.

5.3.6 **Shropshire Council Economic Growth – Support**
The Economic Growth team supports the application's Strategic implications and reduction in congestion:

The NWRR is the final section of the strategic network around Shrewsbury linking traffic travelling from the west of the town to north and east Shrewsbury, from Oswestry and Mid-Wales to the A41 /A49 and on to the A5/M54 and Birmingham and the Black Country, the Northwest and the Midlands. The A5 is also part of the Trans-European network from Felixstowe to Holyhead facilitating national and European freight movement from southern and eastern seaports into Wales and Ireland.

The existing situation constrains access to and through the town centre with demand from cross-town traffic. The Traffic Assessment indicates that the scheme would bring relief to the Outer Ring Rd reductions in traffic on the A528 to the North Shrewsbury and Smithfield Rd and at Welsh Bridge. The problems of congestion have been highlighted by a number of companies particularly delays in the north of the town. The route will reduce journey times and increase connectivity to employment sites particularly Battlefield Enterprise Park and Oxon Business Park. Impact on the Town Centre and facilitating redevelopment: Although not dependent on the NWRR, the proposal will support and facilitate the wider priorities outlined in the Shrewsbury Big Town Plan: These include.
-Pedestrian priority in the town centre
-Better pedestrian cycle way network in and across the town
-Measures to reduce through traffic
-The provision of the Relief Rd will reduce the amount of through traffic in the town and provide the opportunity to implement a number of Big Town Plan proposals including
-The Riverside development on Smithfield Rd
-Repurposing of Pride Hill
-Pedestrianisation of the Smithfield Rd

5.3.7 **Historic England – No Comments**
It is noted from the submitted Desk Based Assessment that the Council's Historic Environment Team has been advising on the proposals. On this basis Historic England does not wish to provide detailed comments on the application.

5.3.8 **County Archaeologist – Conditional Acceptance**
27th April 2021
The Historic Environment Desk-Based Assessment indicates that the road corridor has been subject to two previous phases of archaeological evaluation. In 2006-7 a geophysical survey and trial trench evaluation was undertaken to the south of Berwick Park, targeted at a number of cropmark features in this area. In 2018-19 geophysical survey and trial trenching was also undertaken for the south-western end of the proposed road corridor (then known as the proposed Oxon Link Road). In 2019-2020 a further archaeological geophysical survey was undertaken for those areas of the proposed road corridor that were not subject to the 2006-7 and

2018-19 evaluations. The Applicant was subsequently advised that a trial trenching evaluation to test the significance of the anomalies identified in this latest geophysical survey is required. The possibility for additional evaluation work, in the form of a geoarchaeological deposit model and possible purposive geoarchaeological borehole samples to clarify the potential of geoarchaeological remains within the River Severn floodplain, was also highlighted. The Historic Environment Desk-Based Assessment indicates that, subject to access, the Applicant proposes to complete the trail trenching evaluation to test the anomalies identified by the 2019- 2020 geophysical survey prior to determination of the planning application. The results will enable the impacts of the proposed development on buried heritage assets to be fully assessed, and the need for conditions to secure an archaeological mitigation strategy to be determined. It is therefore requested that SC Archaeology (Historic Environment) is reconsulted when this information is submitted so that we can advise further.

12th March 2023
With specific regard to the direct archaeological impacts of the scheme, and in relation to the requirements set in Policy MD13 of the Local Plan and Paragraph 194 of the NPPF, as previously noted Environmental Statement contains a Chapter on the historic environment (Chapter 11). This is also supported by a Historic Environment Desk-Based Assessment by WSP (ES Appendix11.1); a Detailed Gradiometer survey report (ES Appendix 11.2) and Archaeological Evaluation report (ES Appendix 11.3), both by Wessex Archaeology and dated February 2018 and April 2019 respectively, for the south-western end of the proposed road corridor (formerly known as the Oxon Link Road); and an Archaeological Geophysical Survey report (Appendix 11.4) by Mola for a survey of the central and northern of parts of the proposed road corridor between 2019 2020.

Additionally, the Applicant has now submitted a further report entitled Shrewsbury North West Relief Road Trial Trenching: An Archaeological Evaluation Report by AOC Archaeology Group. This reports on the findings of further targeted evaluation trenching of the areas of the road corridor which were not investigated during in the 2006-7 and 2018-19 campaigns. It is therefore now advised that together these reports now satisfy the requirements of in Policy MD13 of the Local Plan and Paragraph 194 of the NPPF and provide sufficient information about the archaeological interest of the proposed development site to enable an informed planning decision to be taken.

Taking account of the findings of the various phases of evaluation work, it advised that it will be necessary to undertake further archaeological excavation and recording of the Berwick Cropmark Complex (Mitigation Areas 1a & 1b) and a probably Iron Age -Roman enclosure east of Berwick Road (Mitigation Areas 2). A Written Scheme of Investigation by WSI has been submitted that makes provision for an archaeological strip, map and sample excavation of these areas. With regard to Policy MD13 of the Local Plan and Paragraph 194 of the NPPF, it is therefore advised that an archaeological condition is included on any planning permission for the proposed development.

5.3.9 **Shropshire Council Conservation – No Objections**

12th May 2021

Having reviewed the supporting documents relevant to above ground heritage assets there has been identified in limited cases indirect slight adverse effects on several heritage assets where these have been further assessed as being at a not significant level. Mitigation measures related to landscaping and lighting are noted where the Landscape Visual Impact Assessment also addresses these matters to some extent and where some further mitigation measures are recommended in the landscape consultants review of that document.

It has been considered that the potential impacts this major development could have on designated and non-designated heritage assets and their settings along and near to the proposed corridor route have been assessed in line with the relevant advice in the NPPF taking also into account Historic England guidance and advice including GPA3 and GPA2, as well as our local policies relevant to the historic environment. There are no objections subject to the mitigation measures noted above and those set out in the relevant HIA and LVIA supporting documents being secured via condition.

5.2.10 **Shropshire Civic Society – Object**

16th April 2021

On 18th May 2020, Shrewsbury Civic Society informed Shropshire Council that it would object to a planning application and proposals for the North West Relief Road as they stood then. Those proposals had failed to reduce congestion, air pollution and carbon in line with Shropshire Council's declaration of a climate emergency. The present proposal in Planning Application 21/00924/EIA varies very little from the previous one. It uses the same justifications as in 2017 and ignores all the changes of circumstances since then.

12th September 2021

Shrewsbury Civic Society has now reviewed the applicant's revised application and has concluded that, apart from the removal of the crawler lane and associated minor knock-on effects on the EIA, there are no significant amendments to the application.

5.3.11 **Shropshire Historic Parks and Gardens – Object**

We disagree that the overall harm caused to the significance of Berwick Park will be 'less than substantial' but feel strongly about the level of that harm, should be categorised as 'significant'. Given the nature of the proposed development, we cannot see how such harm can be mitigated.

We therefore object to the proposed development.

5.3.12 **The Battlefields Trust**

No response to any consultations

5.3.13 **Regulatory Services (Air Quality) – Conditional Acceptance**
28th April 2021

The NWRR has the potential to increase air pollution in some localities while alleviating pollution levels in others through a redistribution of motorised road vehicle movements around Shrewsbury. Critically there is an existing Air Quality Management Area (AQMA) in the town centre where levels of nitrogen dioxide are significantly above national objective levels. There are existing properties which are found in close to the proposed road. which are expected to see an increase in the annual average daily traffic numbers (AADT). There are also expected to be properties close to existing roads which will have reduced traffic flows. As the proposal requires a significant construction project it is necessary to consider the impacts of construction on properties close to the proposed road as well as during the operational phase. Given the information above, it is important that the proposed scheme provides answers to the following questions:

1. What is the expected air quality impact on the AQMA? A quantifiable amount of nitrogen dioxide is expected to be provided for areas within the AQMA where pollution is currently known to be poor.

2. What is the expected air quality impact from the operational phase on existing relevant receptors which are found close to the proposed road? A modelled level of pollutant which can be benchmarked against relevant guidance documentation to evaluate the likely impact of the pollutant levels reported is required.

3. What is the expected air quality impact on existing relevant receptors which are found close to roads which may be expected to have increased AADT? Again, it is expected that a modelled level of pollutant will be stated which can be benchmarked against relevant guidance documentation to evaluate the likely impact of the pollutant levels reported.

4. What is the overall impact of the proposal in terms of air quality on human receptors?

5. What is the construction phase impact on properties close to the proposed road and is mitigation required?

An air quality assessment has been submitted with the application. It has been produced by WSP, dated February 2021 and has reference 70056211-WSP-EGN-AS-RP-LE-00007. The report has many appendices and figures which are submitted as separate documents. The report has been considered in detail in order to comment on the five questions highlighted above.

The assessment makes reference to the legislative framework underpinning air quality in the UK including standards which are in place. The standards stated in the assessment are correct. For clarity the threshold levels which are currently set in legislation for local authorities to work towards are available in Local Air Quality Management Technical

Guidance (TG16). An exert from this document containing the pollutants of concern is provided below for clarity. The current situation is that levels of annual mean Nitrogen Dioxide (NO2) are exceeded in the town centre AQMA. No other pollutants are found to exceed legislative levels. Historical monitoring carried out in the area for Fine Particulate Matter (PM2.5) has previously found levels of PM2.5 below the World Health Organisation guideline in the town centre.

The assessment states that increases in air pollution as a result of construction vehicle movements has been scoped out. This approach is accepted with reference to p23 of the DMRB LA105 Air Quality guidance document. As an AQMA exists in the town centre it is recommended that, should the application be granted planning approval, that a condition is placed which prohibits the movement of construction vehicle traffic through the AQMA.

A range of documents have been considered by the assessor. Of particular note is the Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) which specify how to determine significance of air quality impacts and DMRB LA105 Air which provides some detail on methodology, what to include in an assessment and what type of assessment may be required. The report concludes that a detailed assessment is necessary, and this is what has been brought forward through use of the dispersion model ADMS roads (version 4.1.1.0). This modelling software is considered acceptable for use. The report provided takes into consideration detailed traffic monitoring to generate an air quality model which has then been ratified using historic air quality monitoring results. This type of assessment is acceptable and in line with relevant guidance. The model uses meteorological data for base year 2017. The wind rose provided for this year is considered to be typical of wind roses seen in other applications in the area with a predominantly south westerly wind.

The assessment considers assessment methodology further in paragraph 6.8. It states that the construction phase impacts will be assessed using methodology in IAQM guidance on the Assessment of Dust from Demolition and Construction 2014. This guidance document is considered a reasonable guidance document to reference and use to move forward with any assessment. It is accepted that it offers more detailed characterisation of impacts compared to other referenced guidance.

A detailed model of air pollution requires verification. Monitoring locations have been used to create annual average reference points for NO_2 with which to verify the model created in respect of this pollutant. This included past data from the OLR legacy scheme and new data collated by the applicant along with data captured by Shropshire Council to fulfil existing Local Air Quality Management Regime duties. Some data has been annualised using LAQM TG(16) methodology.

Paragraph 6.6.17 discusses PCM links and the nationally modelled results. It finds all roads considered to fall below legal maximum threshold levels. This information is considered reliable; however it is not a substitute for the

need for monitoring which picks up hotspots of pollution which may be overlooked by models of this scale. As the assessment has taken into consideration a range of monitored values as well as the modelled values in this paragraph it is considered to have taken on board a range of data sources suitable for setting the scene for modelling purposes.

The report considers the operational phase of the proposal in paragraph 6.7.6. It highlights that changes in traffic flows, speeds and the proportion of Heavy-Duty Vehicle (HDV's) (road vehicle over 3.5T, e.g. HGV, buses, coaches and 'vocational' vehicles such as gritters, refuse collection vehicles.), as well as changes to road alignment can alter vehicle emissions. These set of parameters is accepted as having the potential to impact on air quality modelled scenarios. It highlights the fact that the air quality model must consider these changes. The air quality model is based in part on traffic model inputs of changes to flows, speeds, etc.

The modelling inputs used in the report have been considered and found to be acceptable including use of relevant vehicle emission factors, meteorological data, baseline air pollution concentrations and modelling specifics such as roughness length. Calculation methodology in respect of primary pollutant emissions and conversions to NO2 has been carried out in line with relevant national guidance. The initial model was found to underpredict concentrations of NO2. Following a scaling process known as verification, three different factors were applied to different monitoring locations. One factor was used for the monitoring positions by Shrewsbury Train Station, the hot spot of pollution previously monitored by Shropshire Council and therefore an important location, another for those locations found on a hill and another considering all other locations. By providing a breakdown of scaling to these three types of scenarios the model is considered to have made efforts to provide as accurate a reading for proposed future year scenarios as possible taking into account specific receptor location characteristics. Guidance states that there may be the need for more than one verification factor to be applied to a widespread model. As such this approach is considered to follow guidance. As a note it should be stated that no model known to have been provided in the past for the Station location has ever managed to correlate neatly with monitored results. This is due to the particular physical nature of the area including urban canyon impact and enclosure by railway line bridges. It is not surprising that this location required its own verification factor.

The assumptions and limitations of the model used to predict future year air quality concentrations are considered reasonable and are no different from those expected with any model of this nature. The presence of uncertainties and limitations does not suggest that the predicted future concentrations of pollutant are likely to be widely disparate to the levels that may occur, nor do they suggest that the modelled values will be the precise values that can be expected. Modelling is a complex affair with many simplifications of the true scenario and many interdependencies on other factors. Given the information provided by the applicant and detail provided in the report the model used is considered to be suitable with no aspects which deviate significantly from established guidance. As such the model outputs are considered to be a reasonable set of figures to base

conclusions around the significance of the development in terms of its air quality impact on human health.

The model predicts that future “do something” scenario creates betterments at the five locations currently expected to potentially exceed national pollution target levels for NO2. Two of the locations would naturally have been expected to have reached levels below current national objective levels meaning they would have achieved the target without the proposed development. These locations were; ho104 (The Mount) where baseline levels were increased due to roadworks at the time of gathering baseline data suggesting that no exceedance was ever likely in this location in normal conditions and, ho132 (Coleman Head) which is a known monitoring location with no relevant residential exposure. Two locations are predicted to meet national objective levels due to the inclusion of the proposed development. These are receptor ho105 (A458 Frankwell) and ho106 (B4386 Copthorne Road). The remaining location predicted to have a baseline exceedance is around Station Hotel on Castle Foregate. This is a known air pollution hot spot referenced in Shropshire Air Quality annual reports. At this location a large reduction in pollution is expected. Overall, this suggests a significant improvement is brought about at these locations by the proposed development.

There are locations where an increase in air pollution is expected due to the proposed development. These are found along roads accessing the proposed development and at receptors closest to where the proposed development will be located. In all cases where an increase in NO2 pollution is modelled there is significant headroom below the national objective levels to ensure that the increases do not result in an exceedances of pollution limits set in legislation. In some circumstances some reasonably large percentage increases may be found. For example, at location ho053 (B5067 Berwick Road – just north of junction with Gravel Hill Lane) an increase from expected future “do minimal” to “do something” of 72% is expected with the introduction of an additional 5.6units of NO2 as an annual mean. At face value this may seem significant, however, when considering that the “do something” scenario will result in a modelled concentration of NO2 of 13.4 units against a backdrop of the legislative targets of 40 units it is clear that the increase does not have a significant impact. There are increases proposed in areas closer to the legislative target but again there is significant head room of at least with “do something” modelled results suggesting at least headroom of 40% of the objective level in all circumstances). It is appreciated that there is no safe level for air pollutants and as such exposure to higher levels of pollution comes with a certain level of risk. In the UK the air quality objectives have been set to establish limits which can be considered the acceptable risk level. This is common for many types of pollution; a level is set below which the risk to those exposed is not considered to be an unacceptable risk.

The NPPF makes reference to the presence of Air Quality Action Plans (AQAPs). The AQAP for Shrewsbury was last amended in 2008 The AQAP highlights consideration of pursuing a NWRR for Shrewsbury. It notes that this would be likely to have a very high impacts on the air quality in the

AQMA. A very high impact is defined in the document as an impact creating a positive betterment which is likely to be very high within the AQMA with or without complimentary schemes. Page 26/27 of the AQAP notes the NWRR as a key action to be investigated in order to tackle air quality challenges.

It is considered that the proposal conforms to national and local policy in respect of air quality. In addition, it brings forward a proposal in the AQAP which at the time of its writing expected any NWRR would have a very high positive impact on the air quality of the area.

Conclusion
Overall, the proposed development has been modelled to have a betterment in areas where highest levels of air pollution are currently found and can be said to be a betterment in respect of the AQMA as in some places this is expected to result in achieving legal objective levels, in others it reduces pollution concentrations closer to the objectives and in some locations it is likely to create an increase in pollution. In no location is it predicted for the proposal to push pollution concentration above threshold levels for any pollutant. The impact at all existing receptors on the existing road network is considered a low impact due to headroom below national objective levels where an increase in pollution is modelled. The impact on residential receptors that will be close to the proposed development is low for the same reasons. The proposed development is concluded in the report to have a significant beneficial effect on human health. Given the information presented this conclusion is accepted given its low impact where increases in pollution are expected and the reductions created in specific locations of concern where high pollution levels currently exist.

Construction dust impact requires mitigation. An outline Construction Environmental Management Plan (CEMP) has been produced. The CEMP has been considered and it is recommended that this be conditioned to ensure that the short to medium term impacts on air quality from construction, earthworks and track-out activities will be minimised. It is inherent that where the activities proposed take place in proximity to human receptors that an impact is likely. By ensuring that all reasonable steps are taken to reduce the impacts of these activities the impacts which are created are considered to be acceptable.

Monitoring requirements: diffusion tube monitoring pre, during and post, and dust monitoring during construction are recommended to inform and additional mitigation that may be required at the time and to capture relevant data to quantify the actual impacts going forward in time should the application be granted approval. It is recommended that monitoring is conditioned as a requirement at locations to be defined in consultation between the applicant and the Local Planning Authority using expertise provided by Shropshire Council's Regulatory Services department.

The information in the assessment allows the 5 questions posed at the start of these comments to be answered. On this basis it is considered to have provided sufficient information to inform the planning process.

25th September 2023

A thorough examination of the information presented with the application was carried out with Regulatory Services comments provided in April 2021. Since this time amendments have been made to the application and additional information has been supplied.

Considering revisions and information provided Regulatory Services have carried out a further review of information provided. Past comments suggested worked examples of annualization methodology be provided. Given additional monitoring data captured since this time it is not considered necessary to have this information as future predicted pollution levels can be referenced against latest monitored data.

The air quality model continues to be considered to have been carried out in line with relevant guidance. Inputs available to scrutinise are considered satisfactory. It is noted that since its production there have been changes which would be expected over time. For example, the model has used EFT v9.0 for input data on emission factors from the fleet. The latest version of EFT is now v11. However, it is not anticipated that a rerun of the model using updated emissions factors would create a difference to outputs that would significantly impact on model outputs to a level that would change conclusions on the level of impact forecast.

To our knowledge no concerns have been expressed by Highways which suggest the AADT flow information presented and used in the air quality model are significantly different to expected traffic numbers. Revisions to the air quality model would only be considered necessary should it be suggested that significantly different AADT flows to those previously modelled are expected.

The model predicts that the future “do something” scenario creates betterments at the five locations which historically were expected may exceed national objective levels for NO2. Two of the locations would have naturally been expected reach levels below the national objective level meaning they would have achieved the target without the proposed development. These locations are; ho104 (The Mount) where baseline levels were increased due to roadworks at the time of gathering baseline data suggesting that no exceedance was ever likely in this location in normal conditions, and ho132 (Coleham Head / Abbey Foregate – Eastern end of English Bridge) which is a known monitoring location with no relevant residential exposure. Two locations are predicted to meet national objective levels due to proposed development impact. These are receptor ho105 (A458 Frankwell) and ho106 (B4386 Copthorne Road). The remaining location predicted to have a baseline exceedance is around Station Hotel on Castle Foregate. This is a known air pollution hot spot referenced in Shropshire Council’s Air Quality annual status reports. At this location a large reduction in pollution is expected. This data is considered to promote a significant improvement in air quality and the ability to achieve national objective levels for NO2 annual mean in future. The reduced traffic

volumes in the Shrewsbury town centre AQMA may enable further measures to be considered to achieve future betterments which may currently not be possible due to the impact on congestion.

There are locations where an increase in air pollution is expected due to the proposed development. These are found along roads accessing the proposed development and at receptors closest to where the proposed development will be located. In all cases where an increase in NO2 pollution is modelled there is significant headroom below the national objective levels to ensure that the increases do not result in any exceedances of pollution limits set in legislation. In some circumstances large percentage increases are predicted. For example, at location ho053 a 72% increase from expected future “do minimal” to “do something” is predicted adding 5.6 units of NO2 as an annual mean. This equates to a moderate impact when considering IAQM guidance. However, when considering that the “do something” scenario will result in a modelled NO2 concentration of 13.4 units against a legislative target of 40 units this increase would not be found to be significant. There are increases proposed in areas closer to the legislative target but again there is significant head room to suggest the “do something” modelled results are not considered significantly detrimental.

It is appreciated that there is no safe level for air pollutants and as such exposure to higher levels of pollution comes with a certain level of risk. In the UK the air quality objectives have been set to establish limits which can be considered an acceptable risk level to population health.

Following additional review of the assessments some additional comment is put forward to help clarify the statements above and provide further reasoning for conclusions.

It is clearly demonstrated in the detailed assessment that areas where air pollution is currently monitored to be worst would be expected to have reduced traffic numbers, reducing congestion, and air quality betterments (some of the largest betterments modelled across the whole network). In contrast there will be traffic increases with some increased congestion in other areas creating some additional pollution. Where this is modelled to be the case it is known from existing monitoring and predicted by future “do something” scenario that these areas have lower baseline levels of pollution significantly under pollutant thresholds which would require action by the local authority under the Local Air Quality Management Regime. By promoting better air quality where existing levels of pollutant are highest and exceed legislative levels of pollution with the trade-off of increasing levels in areas significantly below legislative levels it is concluded that the overall impact of the development is a positive step overall when considering air quality across Shrewsbury.

It is known that air quality health impacts are positively correlated with deprivation. A measure of deprivation commonly used is the Index of Multiple Deprivation (IMD). Shropshire Council has mapped IMD: https://shropshire.maps.arcgis.com/apps/MapSeries/index.html?appid=2b886455a358405eb71e7a8c12783067

When overlaying IMD data with modelled air quality impact of the proposed development it is typical to see that reductions occur in more deprived areas (Castlefields and Ditherington IMD score of 2 and 4) than those which typically see any forecast increases (Bowbrook IMD score of 5, Bagley IMD score of 9, Copthorne IMD score of 10, Meole IMD score of 10, Radbrook IMD score of 10). In others there will be areas with increases and decreases across the patch e.g., Quarry and Cotton Hill IMD score of 4. The development would create less disparity between most and least polluted areas of the town. Although any increases in air pollution are not considered beneficial the impact on health in less deprived areas would be likely to have less impact than if this occurred in more deprived spaces.

Due to this expected impact Regulatory Services recommends to the local planning authority that the proposal, on balance, has no significant effect on human health at worst and could be considered to have an overall beneficial impact. This decision is made based on the consideration of the information provided in the technical documentation submitted with this application which is found to be suitable and carried out in line with relevant guidance, relevant technical guidance on how detailed air quality assessments should be carried out and guidance which considers how to assess significance.

It is noted that significant air quality effect is not, of itself, a reason for refusal of a planning application. That decision will be the outcome of a careful consideration of a number of factors by the planning committee with air quality being just one of the factors. Equally no significant detrimental impact requires balancing against other factors.

It is noted that the predicted construction timetable would see the development brought forward later than the modelled “do something” scenario modelled. This is not considered to be a significant detail requiring model revision. This is due to concentrations of NO2 typically falling in line with expectations when considering most recent data with a slight caveat for covid lockdown measures impacting on 2020 and to a lesser extend 2021 annual average monitored data sets. It is also the case that a later start date would see an expected betterment in the fleet in terms of emissions of pollutants. Therefore, any model to consider a do something scenario in years to follow 2023 would provide a reduced impact picture across the board.

It is noted there have been changes to various policies and legislative levels introduced for PM2.5 at a national scale since the initial assessment was completed. It is not considered necessary for additional assessment as modelled background maps of PM2.5 provided by DEFRA find levels of pollution below the 2040 limit of 10ug/m3 in 2023 and future years.

In respect of potential dust soiling during construction it is noted that a potential impact may be felt. It is recommended that an appropriate condition be attached in relation to air quality matters to ensure mitigation in line with the ES, with the exception of waste management to state no burning of any waste materials including organic materials from site

clearance shall take place on site.

Summary
Despite some increases in air pollutant concentration in some areas the overall assessment of air quality impact is considered not significant at worst and could be viewed as having a beneficial impact due to the locations where betterments would be found (areas where national objective levels are or are close to being exceeded and/or areas which in any given future year would be likely to have highest concentrations of pollutant).

The model is considered robust and no revisions for additional future years post 2023 are considered necessary as the impacts would be expected to be less significant in all cases making the impact.

A condition regarding potential for dust soiling is recommended to limit potential impact of what would be a major construction project.

Addendum: 25/09/2023
Following points raised about the assessment some additional commentary for clarity is provided below.

Previous comments state that the technical information provided was carried out in line with relevant guidance. It has been brought to attention that one of the guidance documents used was LAQM TG.16. This was the current version of documentation available at the time the assessment was being prepared. Although some changes were created to form LAQM TG.19, and subsequent LAQM TG.22 (numbers refer to year of publication), the assessment methodology is still considered to be robust when referring to most recent guidance. Guidance and policy documentation can change post assessment commencement. It is not considered reasonable to request assessments to be restarted to take account of this matter, particularly when any potential changes would not likely lead to significant changes in outcome as would be expected due to changes made in this circumstance. TG16 an TG19 are both no longer available the DEFRA air quality webpages without request.

It is noted that there has been mention of construction plant emissions not being assessed. Having considered this point and given the general open nature of the proposed site as a whole and the transient nature of construction work (not withstanding the fact that the project would take a significant amount of time to complete) this source of pollution would be expected to create some pollution in the locality. However, the impact is not considered likely to impact on assessment conclusions.

A query has been logged to ask why 2019 was not used as the base year for the assessment. With the assessment was carried out in 2019 the full monitoring data and information required to adjust this as necessary in line with LAQM processes was not available. For example, when taking diffusion tube data a correction factor is available at the earliest in April following the full calendar year of results captured in the previous year. It is

noted that there was a significant reduction in pollutant concentration at the hotspot location (Castle Foregate) in 2019. Generally, pollutant concentrations are falling over time. Although percentage reductions would remain similar, starting from a lower base year concentration would potentially show less significant increases where these are modelled and slightly less betterment in the hotspot area. This would be considered a general balancing out of impact over the assessment area.

Clarification has been sought over the impact of using EFTv9 over EFTv10. It is noted that EFTv10 was only produced following assessment having been undertaken. EFT documentation is updated over time. Often parameters used are relatively “old”. For example, EFTv11 is based upon NOx and PM emissions factors released in 2019 despite it being released in November 2021. For clarity it is not expected that there would be any assessment outcome impact even with the proposal. Given that the proposal creates a betterment in the area where there are highest NO2 pollution concentrations and increases pollution in areas of typically low pollution any changes in emissions factors would be counteracted across the sites, e.g. if assessment outcome found less beneficial impact at the former it would find less increased pollution at the latter. Regardless the most up to date factors were used at the time of commencing work on the assessment.

Similar to the point above a question over use of background map dated used has been posed. Relevant background data was used at the time of the assessment. In addition, background data does not alter significantly between the 2017 and 2018 base years. There are changes however these are not considered to be significant in this setting or of such significance that they would change the outcome of the assessment.

A query regarding DMRB over IAQM guidance for operational phase has been raised. The assessment used although taking a different approach is considered reasonable. I can confirm that this was agreed in discussion during initial assessment design.

To provide a final comment on the application in terms of air quality contributions it should be noted that any assessment outcomes predicted pre covid may now overestimate pollution concentrations in future years as societal norms have shifted to accommodate less need for work travel sites in job roles where remote working is possible. This is likely to result in predicted do nothing and do something scenarios being reported as higher than likely. As such it could be argued that the modelled outputs are extremely conservative in nature.

It is considered that the assessment produced was produced using relevant guidance and approved methodology. Model outputs are considered to be conservative given societal changes outside of the control of any assessment.

22nd October 2023

It has been noted that: *All clarifications resolved, many on the basis of*

previously agreed approaches with Shropshire Council Regulatory Services, the exception is C.5.11. With regard to C.5.11 the EIA scopes out the detailed assessment of construction vehicle emissions on the basis the construction programme is less than 2 years as per DMRB LA 105 - Air quality methodology. Confirmation is required from Shropshire Council Regulatory Services to confirm this is also an agreed approach as it deviates from the methodology set out in the EIA scoping report which indicates IAQM guidance should be used. If the approach is not agreed and IAQM should be applied, then further clarification is sought from WSP further detail in respect of construction traffic and potentially an assessment if they exceed the thresholds set out in the IAQM guidance.

Section 2.60 of DMRB 105 states that, “If the construction activities are less than 2 years it is unlikely that the construction activities would constitute a significant air quality effect or impinge on the UK's reported ability to comply with the Air Quality Directive [Ref 4.N] given the short-term duration of the construction activities as opposed to the long term operation of the project”.

It has been clarified by the applicant that the construction phase will not exceed 2 years. This indicates that it would be considered reasonable to screen out detailed assessment under DMRB 105. It is confirmed that Shropshire Council’s Regulatory Services accept this methodology for use on this type of activity, i.e., the building of major roads. The DMRB methodology has been designed specifically for the proposed development whereas IAQM methodology although capturing this activity is a broader set of guidance to capture additional construction schemes such as development of buildings.

It is considered acceptable to take on board the DMRB 105 exemption due to the specifics noted in the document as well as having knowledge of pollution concentrations from historic and current monitoring in the area collected by Regulatory Services over many years. Additionally monitoring in other locations in the County where PM2.5 and/or PM10 levels were captured have been considered to reflect on the traffic movements proposed and consider these in relation to other sources which could be considered similar. For example, several years of PM10 data collected on the A49 by Baston Hill quarry where there is track out from the quarry and large numbers of HGV movements. Historically the monitoring was ceased due to levels of pollutant below national legal limits. This information has been used to consider the specific necessity for detailed assessment with a conclusion that a detailed assessment is not considered necessary.

A query has been raised regarding construction traffic vehicles used for waste removal from site being included or not in numbers of vehicle movements. Given the construction period of less than two years has been confirmed this is not relevant as it is still considered appropriate to scope out this aspect due to length of the construction operation.

The documentation supplied notes that there are several receptors within reasonably close proximity of the proposed development and that other planning permissions have been granted since the applications was submitted for new receptors in the area with other applications in the

planning system. Although scoping out of construction vehicle impact is considered acceptable, operational aspects could create impacts through dust soiling and potential PM10 creation and dispersion from the construction and access to and from the site. A CEMP has been produced and submitted providing what are considered to be comprehensive mitigation methods to reduce dust soiling and PM10 creation and dispersal to nearby receptors (CEMP section 7.2). A dust management plan taking into account specifics will be created and submitted to the LPA for approval should this application be granted approval. At this stage any aspects which may come to light between now and such time can be identified and addressed.

Additional detail is provided in the CEMP clarifying mitigation measures to reduce to a minimum PM10 and dust soiling. Dust soiling can be checked via visible checks on surfaces close to existing receptors and the CEMP clarifies that this will be undertaken. In addition, the CEMP notes that monitoring for PM10 will be carried out with locations agreed by the LPA prior to works on any specific phase commencing. Where possible background readings will be taken 3 months prior to the work commencing. This will allow a baseline to be produced to understand the impact of the construction activity. It should be noted that results will capture all sources of pollution and that on occasions will capture pollution events due to air mases travelling from different regions and specific event impact – such as Guy Fawkes night activity where PM monitors around the county spike. As such data needs to be considered in this light and will require checking against other monitoring in the wider area. For example, a PM monitor on the DEFRA AURN is located in Telford (Telford Hollinswood (UKA00648)). **Both of the above monitoring techniques will enable additional action to be arranged should any unacceptable impact be found. It is recommended that PM10 monitoring is promoted past construction phase for a year post operational phase to capture detail on this aspect and provide information to the public on this front. A condition is recommended to capture the above elements in full.**

The CEMP covers many aspects of construction operations and construction equipment management which reduce potential of dust soiling and PM10 creation. **It is advised that, should the LPA grant planning permission, section 7.2 of the CEMP is conditioned in full with an addition to state that where approval from the LPA/Public Protection service is mentioned that this shall be approval in writing prior to the activity in question commencing.** For clarity where receptors are referred to in the CEMP this must include any inhabited receptors existing or introduced between now and construction activity commencing/introduced during construction activity where planning permission was granted prior to a decision on this application. For further clarity it should be noted that should approval be granted any subsequent approvals for receptors must take into consideration impacts from this proposal e.g., need for air quality assessment.

In respect of any receptors that may have been brought forward since assessments were created it is accepted that the current assessment and mitigation promoted through the CEMP has previously considered many

receptors at varying distances from the proposal. It is recommended that given the thorough mitigation for construction and a trend of reducing pollutant concentrations from road transport that this is likely to ensure that reasonable protections are in place for any new receptors that may not specifically have ben noted assessments. Furthermore, monitoring requirements could be used to pick up the need for additional measures should they arise.

It is noted that there is an AQMA in the town centre of Shrewsbury. This was declared and remains in force due to annual average concentrations of nitrogen dioxide being found above current legal limit values. The impact of the completed development would be to reduce pollution in the AQMA, a betterment. However, construction traffic could impact on the AQMA and on general levels of congestion in the town centre should it pass through the area. **It is recommended that a condition is placed to ensure construction traffic is not routed through the town centre as standard appreciating that in exceptional circumstances there could be a short-lived need for movements e.g. emergence works and diversions etc. Reason: to remove pollution sources from the AQMA.**

The documentation provided notes a commitment to monitoring pollution levels to validate model outputs. It is noted that the council already carries out monitoring in key locations and has long term trends of data in many known pollution hotspots. Additional monitoring locations were installed several years ago to ensure the impact in areas where increases in pollution concentration are modelled will be captured. **It is recommended that a condition is placed to state that nitrogen dioxide monitoring shall be installed and maintained from construction commencement until such a time as the Public Protection service states that is can be ceased. The monitoring locations shall be approved in writing by the Public Protection service and will be designed to cover a representative sample of the area. Reason: to ensure impacts from the development are captured and fed into Local Air Quality Management duties to understand any need for additional measures to fulfil statutory duties in respect of this regime.** Locations are expected to correspond with short term monitoring carried out as part of the assessment activity promoted in air quality assessments submitted. This aims to assist SC with understanding the impacts of the Proposed Scheme in areas of concern such as the Shrewsbury AQMA and Coton Hill, as well as to inform a recommendation on the need and location of post-Scheme local authority monitoring.

It has previously been noted that the mitigation measures found in EIA section 6.12 ‘Essential Mitigation’ are conditioned to occur. **It is recommended that this mitigation is conditioned in full. Reason: to protect the health of the population and minimise dust nuisance impacts**. In addition, **it is recommended that a condition is placed stationg that no burning of any waste material including organic material from site clearance shall take place on site. Reason: to reduce particulate matter being created and released into the environment which could impact on the health and wellbeing of residents and to remove potential for nuisance from smoke that may**

otherwise be generated.

The above comments are provided to highlight several aspects of the assessment and mitigation proposals which are considered reasonable and necessary to condition to protect the public from nuisance dust and unacceptable pollution levels.

5.3.14 **Regulatory Services (Noise) – Neutral**

28th April 2021

With reference to the noise and vibration report of the likely effects of the proposed road and noise aspect of the Construction Environmental Management Plan of the application, officers have commented on the operational noise for dwellings, operational noise for non-dwellings, construction noise and vibration, but not commented on ecological receptors. Conclusions and questions for an addendum report or similar are set out below and relate primarily to the proposed road's operational noise on dwellings. Expanded analysis of the Noise and Vibration report is set out under subheadings of:

i. Operational Noise on Dwellings;
ii. Non-Dwelling Receptors;
iii. Vibration and;
iv. Construction Noise in which question are in Bold.

Conclusions:
The report has undertaken the methodology as described in Design Manual for Roads and Bridges: Noise and Vibration (DMRB LA111) following noise monitoring in 2017 and 2019 to establish baseline figures along the proposed route and modelled with software to create predicted LA10, 18hr noise impact figures at the facades of properties. All the noise levels are levels at the façade of the properties. It is worth noting to decision makers that 'LA10, 18 hours' is the noise level parameter for road noise which indicates the noise level in dB that is exceeded 10% of the time between 0600 and 2400.

It is noted that the report does not provide any night-time noise information 2300-0700. Night-time noise is a required parameter in DMRB to be calculated and mapped, typically in terms of L night Free field, which is equivalent to LAeq. Although the applicant has set out reasons for this in paras. 15.8.53 and 15.8.54 please can this be expanded as the lack of data provides a gap in understanding the impact of road noise on receptors at night. Please can the applicant submit night noise data and data maps for review.

The Noise Policy Statement for England (NPSE) introduces the concept 'observable adverse effect level' of noise on the health and wellbeing of the receptor affected by a noise level. In this case, as specified in the relevant guidance document LA111 the No Observable Adverse Effect Level (NOAEL) is achieved where impacts are predicted to be below 55dB. The Lowest Observable Effect Level (LOAEL) is 55dB with the Significant Observed Adverse Effect Level (SOAEL) stating at 68dB. Both LA111 and

Noise Insulation regs state that over that noise levels above 68dB can be defined as Significant Observable Effect Level. Between the LOAEL and SOAEL is the range of noise levels which can be stated to have an observed adverse effect.

Detrimental noise impact on a receptor's property is based on how much of a magnitude of decibel increase, from negligible to major, from the operational use of the proposed road traffic and how it changes a properties current existing baseline, which would already be somewhere on the above 'Observable Effect Level' range. (For example, a 5dB increase is a sufficient increase in dB to be considered a 'major' impact, but where a property's 'background or baseline' level is say, 45dB in the No Observable Adverse Effect level range, an increase to 50dB is still in the NOAEL range. Likewise, a 5dB decrease also has a major impact, but in a beneficial way. However, if the background or baseline level is currently 64dB, the same increase in 5dB contribution, to make it to 69dB will be a major impact and push it from within the upper reaches of the LOEAL range and into to the SOAEL range, where health impacts are foreseeable.)

The introduction of a new road, and links to it, will introduce a permanent adverse noise source of high significance, resulting in adverse significant effect at 23 receptors. Attention is drawn to table 15-27 of the report. One property will above the 68dB SOAEL threshold due to an increase of 3.9dB and is at Shelton Lodge. 15 of the other 22 properties have more than 5dB increase and will in the LOAEL range and located at Shelton Hall, Shelton Gardens, Dalton Drive and Capel close. I would note that dB is expressed as 'greater than 5dB', but by how much is not specified, some properties in Dalton Drive for example will, according to noise maps experience a magnitude change of up to 20dB increase, though still be within the LOAEL range, by virtue of their current existing low base line figures.

Assuming that people are generally only capable of noticing changes in steady levels of no less than 3dB(A), for the numbers of premises which have been modelled to have a detrimental impact from the road of the range 3dB - 4.9 which is a moderate impact and 5+dB which is a Major Impact are numbered to be 815 (771 will be below the LOAEL range and 44 above the LOAEL threshold) , The same for those premises benefiting from decrease of 3dB - 4.9dB moderate impact and 5+dB Major Impact are numbered to be 64. Therefore, more houses will experience a predicted increase of 3db up to and over 5dB as seen in the table below.

Dwelling Receivers Predicted to experience residual traffic noise level increases including secondary mitigation measures			
DSOY-DMOY change dB $L_{A10,18hr}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
<0.9	1,374	185	8
1.0 – 2.9	3,145	398	7
3.0 – 4.9	448	21	1
>5.0	323	22	0

Dwelling Receivers Predicted to experience residual traffic noise level decreases			
DSFY-DMOY change dB $L_{A10,18hr}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
<0.9	395	284	40
1.0 – 2.9	343	480	113
3.0 – 4.9	6	46	0
>5.0	1	11	0

The provision of proposed secondary and embedded mitigation is required to protect properties closest to the proposed road. Consideration of higher acoustic fencing and the details of the fencing needs to be further considered (at least 12-15 kg/m2 density is commonly specified, suitably overlapped and solid no-gap fitting to floor with often concrete base provided starting beneath ground level to ensure no gaps). The specification of the acoustic barrier does need to be confirmed. Also, it is considered that the arrangement of all primary mitigation and secondary mitigation such as area receiving low road noise dressing and earth bunding needs to be specifically mapped on an arrangement sheet for comment. Also are the barriers absorptive lined or reflective, and why 2m high only is proposed, and what consideration has gone into additional heights of 2.5 and 3m as commonly seen on such routes?

It is noted from the fencing details sheets that there is ‘enclosure’ fencing at this location near Shelton and to the proposed viaduct, but not classed as acoustic fencing. Would acoustic fencing be beneficial in this location to reduce impact of residential receptors nearby?

The properties which will mitigated of noise by a barrier are identified as located on Shepherd’s Lane, The Copse and Shelton Gardens. Overall, with the inclusion of the described secondary mitigation, there are predicted to be 23 receptors which would experience significant adverse effects with the introduction of the Proposed Scheme. One property has been identified as receiving a magnitude of impact of 3-4.9dB and despite secondary mitigation, will still be in the SOEAL threshold – This is Shelton Lodge.

i. OPERATIONAL NOISE ON DWELLINGS

The Noise Policy Statement for England (NPSE) recognises that there is difficulty of setting universally applicable numerical noise limits, as noise sources differ, and therefore introduces the concept of evaluating noise impact in terms of various 'effect levels' on the wellbeing of receptors: A description of the noise level thresholds set out in the Noise Policy Statement for England is provided below for reference:

- NOEL – No Observed Effect Level- The level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.
- LOAEL – Lowest Observed Adverse Effect Level which the level above which adverse effects on health and quality of life can be detected.
- SOAEL – Significant Observed Adverse Effect Level which is the level above which significant adverse effects on health and quality of life occur.

Such adverse effects may lead to closing of windows for acoustic comfort, may lead to turning up volume on TV, music or radio, to increase volume of speech, to irritability and sleep disturbance and other physical effects.

In the case of roads, DMRB 43.9.1 states that 68dBA LA10, 18 hours at the building facade is the threshold of Significant Observable Adverse Effect Level, and 55dB LA10 18hr is the threshold of Lowest Observable Adverse Effect level.

Anything below the 55dB LOEAL is in the NOAEL.

Regarding operational noise, the two approaches in the methodology of the report to present the noise effect of the proposed road compared with the existing noise levels. Firstly, which is to look at the noise impact of the proposed road in the where there is a count of numbers of properties which will be positively or negatively affected by the increases and decreases in traffic noise, but without detail of the magnitude of the difference. Secondly, to look at the magnitude of the impact of the road noise on those properties, in terms of graduated decibel increases and decreases, from the baseline levels and also the effect of secondary mitigation, so to anticipate operational noise levels on receptors. Table 15-15 and Table 15-16 classify the magnitude change of decibel increases and the significance of effect levels as a matrix (NOAEL, LOAEL and SOAEL).

The 419 dwellings currently experiencing noise above SOAEL without the scheme are generally on the busiest existing roads; The Mount, Copthorne Road, Holyhead Road, Welshpool Road and Ellesmere Road.

With the Scheme, 287 dwellings experience noise above SOAEL. The main beneficiaries are on Copthorne Road, The Mount and Welshpool Road.

However, there is an increase in numbers of properties which will be in the

LOAEL range, with an extra 243 properties are anticipated to be within the LOAEL range and 111 fewer properties will in the under LOAEL range. (Table 15-23 is the 15-year future (2038) equivalent of Table 15.20 with a slight increase in numbers of properties which will be in SOAEL range due to growth of traffic volume.)

The beneficiaries are where existing traffic is anticipated to displaced onto the proposed road causing a reduction in annual average daily traffic (AADT) close to beneficiaries' properties. The properties detrimentally effected are those closest to the proposed road, and on roads where displaced traffic movements from other roads creates additional AADT close to their properties to get to and from the NWRR.

It should be noted that the noise increases for those properties detrimentally affected (close to the proposed road) can be arguably determined more accurately, as the noise model can be applied to computer model to show the impact of the road as a noise source and mapped based on known road volume noises interfacing with topography, buildings, receptor locations etc, whereas decreases in road noise in areas of the town away from the proposed road, which are anticipated to have reduced traffic flow, thus reduced noise, due to displacement, is predicated on the traffic model being sufficiently accurate.

Table 15-21 focuses in to determine the magnitude of dB increase for properties which will experience an increase in noise. The scale is under 2.9dB (from a subjective viewpoint an increase in 3dB is accepted as being unnoticeable as any real increase in volume), up to 4.9 dB (which will be perceptible).

To interpret 15-21, Table 15-16 is referred to as it presents the significance of the changes in a matrix form so to apply the Observable Effect Levels. A property may be in a rurally quiet area and experience a 8dB increase but still be below LOAEL threshold and still be in the NOAEL range, whereas another property may already experience noise close to SOAEL range and a modest and somewhat imperceptible 3dB contribution of noise from the road, which is large and significant enough to place it above SOAEL.

Secondary Mitigation (acoustic barrier and low road noise surfacing) is later applied and expressed in table 15-27, the figures following mitigation below are modified in BOLD

- 392 properties are anticipated to increase a change of up to 1 - 2.9dB and will be in the LOAEL range and 7 properties will above the SOAEL threshold. **398 after secondary mitigation.**

- Focusing on a 3dB to 4.9dB increase, 22 'new' properties will be in the LOAEL range and 1 property will be 'pushed' above SOAEL. **21 after secondary mitigation.**

- 322 properties will experience increase of over 5 dB, but still be

below LOAEL, thus in the NOAEL range. **323 after secondary mitigation**

- 51 properties will be affected by dB levels above 5dB, and be in the LOAEL range, but no properties will be above the SOAEL range because of such an increase. **22 properties, after secondary mitigation, will be in the LOAEL range.**

- 7 properties will receive a noise increase of over 1db to 2.9db and be above SOAEL **(no change with secondary mitigation)**

- 1 property receives a moderate 3-4.9dB and is in the SOAEL threshold because of it. **(There will be no change with secondary mitigation on this property)** It appears that no property will experience an increase above 5dB and be above SOAEL because of it.

- Of those 52 properties (coloured as red in 15.21) which will experience large - significant adverse effects and the 29 (orange) are predicted to have moderate to large adverse effects, owing to road noise, the locations are anticipated as being at Shepherds Lane, The Copse, Shelton Gardens, Capel Close, Dalton Drive, Beaufort Ridge and Mountwood Park. **Following secondary mitigation, the 29 properties receiving benefit of the mitigation are in Shepherd's Lane, The Copse and Shelton Gardens.**

- The 322 properties which will receive over 5dB of noise, but still be under the LOAEL and not a significant increase are on Berwick Road/Coton Hill, Juniper Road, Cedar Drive and at individual remote places likely on the northern stretch of the road.

- Additional to table 15-21 there is a table of number of houses experiencing a magnitude which will be expected to experience traffic noise decreases.

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The report's attached figures in map form, illustrate the impact. Receptors can pinpoint a property and I have paid attention, as way of example, to the properties 6,8,10 and 12 Dalton Drive, as being properties close to the proposed road and the viaduct:

- Figure 15.5 is the baseline noise levels – the current noise levels. Focusing on those Dalton Drive properties closest to the proposed relief road the sound levels range from less than 39dB and 39-42dB, LA10 over 18hr. (which is the highest 10% of averaged noise of each hour, averaged over 18hours, effectively the average maximum noise) The level is below 55dB, so is in the NOAEL range. The immediate area was location of monitoring point MP91 in 2019

- Figure 15.6 has 'opening year' with scheme LA10 over 18hours, of

57-60dB, 60-63dB of those same properties. This is an approximate 20-23dB increase, which is significant albeit still in the LOAEL range of adverse effect on health.

- Figure 15.7 is ‘future year’ with the proposed road and the colour points illustrate the same as 15.6 for Dalton Drive. This does not exceed the SOAEL level of 68dB, and so is within the LOAEL range.

- 15.8 illustrates the difference of the difference between the baseline and the short-term noise, graduated from no change through to major (both in terms of increase in decibels for some properties to decrease in decibels in others). Dalton Drive can be seen to have major change, as it is an +5dB increase, as figure 15.6, suggest over the baseline.

- 15.9 illustrates the long term 2038, 15year, noise changes which show for Dalton Close to be Major level difference 10+dB increases, but as 15.7 shows. It does not exceed the SOAEL range and is within the LOAEL range. I would note that 15.8 and 15.9 have different scales where major is equal to or above 5dB on the short term, and major is equal to or above 10dB on the 15-year map. This changing of the short term and long-term parameter is consistent with the LA111 methodology.

- Figure 15.10 illustrates the impact of secondary mitigation, in the form of an acoustic fence. As secondary mitigation is not near Dalton Gardens, it has no impact. The figure uses the same ‘major +5dB, moderate, minor etc. scale as 15.8. The properties which appear to benefit from the acoustic fencing are on the western part of the scheme such as on Shepherds Lane. No. 7 Shepherds lane for example has a baseline of 48-51dB, an opening year of 60-63dB, which is a difference greater than 5dB on short term and +10dB long term use, but with use of the barrier the difference appears to be +3 to 4.9dB.

At the eastern end of the scheme, as an example a property known as the White House which currently has a baseline of 45-48dB, has an opening year model of 54-57dB, which is a +5dB difference (categorised as major) in short term and within +5-9.9dB long term, categorised as Moderate. It is in the NOAEL category without scheme and within the LOAEL category with the proposed road.

The properties which are mitigated from noise by an acoustic barrier are identified as located on Shepherd’s Lane, The Copse and Shelton Gardens. Overall, with the inclusion of the described secondary mitigation, there are predicted to be 23 receptors which would experience significant adverse effects with the introduction of the Proposed Scheme. One property has been identified as receiving a magnitude of impact of 3-4.9dB and despite secondary mitigation, will still be in the SOEAL threshold – This is Shelton Lodge. Consideration is needed on what options are

available to protect occupants.

As stated by 15.12.5." As described in the previous section, notwithstanding secondary mitigation provided by low noise surfacing and 2m high fencing to the north and south of the Proposed Scheme, there would be direct, permanent adverse operational traffic noise effects of **high significance** at 23 of the assessed dwelling receptors which therefore constitutes an **adverse significant effect**.

"15.12.6. There is one receptor with absolute noise levels above the SOAEL which is modelled to experience noise effects of large significance, with a moderate short-term increase of +3.9dB. This dwelling is Shelton Lodge which is adjacent to the side road leading into Shelton Hall Gardens and B4380 Holyhead Road."

The report and monitoring identify 23 properties which will be permanently and adversely affected by significant dB increases on the introduction on a new road.

ii. NON-DWELLING RECEPTORS

The report identifies several non-dwelling receptors. The impact on non dwelling receptors is going to be less than that of residential dwellings and many are not used outside ordinary working hours. However, there are non-residential receptors where there is an element of accommodation and overnight stay. Annex 15.5 identifies the non-dwelling receptors by location and attributes baseline, short- and long-term noise impacts as well as the modelled impact of embedded mitigation only and secondary mitigation applied. Again, there consideration that despite a seemingly large increase in noise levels, if the original baseline is low, a 9-10dB increase will certainly introduce audibility of the road, but still render the premises in a relatively quiet setting. The first example on the Annex 15.5 illustrates this, where the private chapel at Berwick house is 40.5dB (which would classed as NOAEL for residential receptors) and the road will introduce 9.3dB to make it 49.8dB, which is still NOAEL. A significant dB increase but still relatively quiet.

Looking through Annex 15.5, the two stand out locations are the members pavilion at the West Midlands Showground, and a holiday let at Hencote which will receive a 17.1dB increase but will still be 59.9 dB (LOAEL), It also received noise from the adjacent train line. Oxon Touring park is 47.8dB and the road is modelled to introduce 5.8dB to make it 53.6dB. Both the Holiday let, and touring Park are non-dwelling receptors but with an element of overnight accommodation. The arrangement plans and flyover show that the road is in a cutting at this location and low road noise surface which cuts out mid frequencies over 45mph. Table 2 of annex 15.5 models the same with secondary mitigation. The Hencote holiday let has no mitigation, whereas the Oxon touring park has mitigation to reduce the impact from 5.8dB to 3.4dB to result in 51.2dB.
Importantly, the non-dwelling receptors which include overnight sleeping such as Severn Hospice, Redwood Centre and Royal Shrewsbury Hospital site which are predicted are modelled as receiving modest increases. For the Shrewsbury Hospital site it will receive 3.5dB noise contribution from

the proposed road, and for Severn Hospice table 1 states it will receive 3.8dB on the nosiest facade (from 45.7 to 49.5dB which is below the 55dB LOAEL threshold) which is to suggest that the road will be slightly audible. At time of submission of this response a query of clarification of Table 2 of Annex 15.5 in relation to Severn Hospice has been asked of WSP.

Note on operational Noise for all receptors:

The report does not consider meteorological conditions which affect noise. This is not part of methodology of determining impact of road noise. Apart from odour/ airborne particulate or ecological related applications the Regulatory Services Team is not aware of any noise related applications requiring meteorological parameters in noise modelling, suffice to say that the wind direction and other temporary conditions such as temperature inversions, can temporarily create an increased noise levels, from a noise source, on any receptors downwind of that noise source and also conversely that meteorological conditions can mask noise.

iii. Construction Noise:

Construction noise is an evitable consequence of such a major infrastructure project and is controlled largely by the CEMP. BS5228-2:2009 A1:2014 provides methodology and parameters. The noise assessment has determined that the SOAEL of 68 dB will be exceeded by some 13dB at some properties closest to the proposed construction, also non dwelling close to the roads will receive construction noise due to proximity. Main considerations to reduce the impact are the hours of work and other considerate actions such as liaison with communities to inform and act on concerns. Such noise would likely be accompanied by vibration as both can go hand in hand where compacting and earth moving equipment are involved. I note follow accepted guidance of 0700 -1900 Monday to Friday, 0700 - 1300 Saturday and no work on Sundays or Bank Holidays**. Where there are significant noise levels produced will they be maintained for a prolonged period? Is there scope for any noise breaks to provide some respite for residents, specifically for those right next to the proposed roadway such as on Shepherds Lane e.g. potential to ensure that occasional Saturdays have no work or start 0900 and modified start times in accordance to Shropshire Council guidelines given the level of interruption anticipated. Regulatory Services is aware of a formula to offer temporary accommodation where noise levels are significantly exceeded.** Barriers can be employed which according to BS 5228 afford 5-10dB attenuation dependant on height. There will be circumstances of extended beyond hours workings whereby prior notification and justification will be required by the development control, though it is anticipated that these would be towards the end of the scheme.

The adoption of Best Practicable Means (BPM) will be a fundamental mitigation measure. The manifestation of BPM will be a series of noise and vibration control measures, which will be incorporated within the Construction Environmental Management Plan (CEMP). Compliance with CEMP should result in noise and vibration impacts during construction being minimised or avoided.

iv. Construction vibration:

The construction method includes plant and methods which will give rise to vibration. Vibration is measured in Peak Particle Velocity (PPV) which is a tri-axis movement up/down, side to side, and forward and backwards or combinations thereof. BS5228-1:2009 A1:2014 provides methodology and parameters. It should be noted that human perception is very sensitive to vibration and when sensed, it is reasonable assumption that building elements may also be affected and manifested as cracks, cosmetic or structural damage. The threshold of the PPV to cause such manifestations is high, whereas perception to levels where is initially can be perceived and to levels to cause annoyance is low. Ground bourn vibration can also manifest itself as 'noise' within an established property. There is no indication that levels will be great enough to cause any cosmetic or structural damage, though indications are that will be perceptible. There is equipment, such as Vibratory Rollers, the models have which have an unknown vibration amplitude at this stage but are anticipated to exceeds the 1.0 PPV SOAEL at some properties in Shepherds Lane for the duration of their operation in the immediate vicinity and adverse effect on receptors can be mitigated by liaison, monitoring and CEMP protocols. **BS 5228 states that 'start up', 'Steady State' and 'Run Down' settings on various vibration amplitudes should be considered and submitted**. I note that the report anticipates levels not being close to cosmetic or structural damage levels, but vibration is alarming, so monitoring to set levels with cut-off action level and liaison will be required and action levels set and monitored on site with tri-axis monitoring equipment. No rock blasting is anticipated to make way for the road. Where piling is required it is noted that percussion vibration is not to be used and CFU (an augur type method which is considerably quieter than the hammering of piles will be employed) and the nearest receptor at this proposed piling site is over 50m away, therefore piling activities is not anticipated to be an issue.

20th October 2021

With reference to the Supplementary Environmental Statement Chapter 15–- noise report addendum and appendix B of the same report. Remodelling of operational noise (traffic noise) impacts has been undertaken based on the redesigned carriageway, a shortened viaduct span and design and removal of a crawler lane. The remodel of noise impacts has suggested very modest benefits of the noise impact of the proposed scheme and no increase in a detrimental impact.

The addendum description of the modelling outcome expresses that there are some very modest beneficial associated with the redesign, in that some few properties have moved to a lower adverse impact category within the baseline, opening year, future year with the same secondary mitigation requirements.

Secondary Mitigation (acoustic barrier and low road noise surfacing) is later applied and expressed in table 15-27 of the previous report and now in Table B8 of the August Addendum. Overall, the figure are tiny modest improvement over previously modelled figures.

401 dwellings will experience a noise increase of 1-2.9dB on current noise levels and be within the LOAEL (Lowest Observable Adverse Effects Level)

to SOAEL (Significant observed Adverse Effect Level) category. 7 properties will be above the SOAEL threshold because of the 1-2.9dB increase adding to already known noise levels. The 1 to 2.9 dB increase in road noise will be received by 3,149 dwellings, but they will still be under the threshold LOAEL category.

21 dwellings will experience a more significant noise increase of 3 – 4.9 dB on current noise levels and be in the LOAEL to SOAEL category. 1 property will be in the SOAEL because of that increase. This has been identified as Shelton Lodge.

330 Properties, in the short term, are modelled to have an increase greater that 5dB (though one has to look at the appendix map for specificity of by how much greater than 5dB). Of that 330, 310 dwellings will still be below the threshold of Lowest Observable Adverse Effects Level and 20 will be in the category range of above the LOAEL and below the Significant Observable Adverse Effect Level. These are the properties which will experience the notable increase in road noise.

(In the February report, 323 and 22 properties were considered in these categories, so there is a small reduction in the number of properties of residual large/significant impacts on 2 properties.)

The locations are anticipated as being at Shepherds Lane, The Copse, Shelton Gardens, Capel Close, Dalton drive, Beaufort Ridge and Mountwood Park.

The purpose of the addendum report is to modify the previously provided figures based on new circumstances triggering the re-model. As the new circumstances are relatively subtle, from an operational road noise perspective, the outcome is subtle. (There was no further information on construction phase noise which is likely to remain unchanged, but I note that due to the change of viaduct structure and material that CFU piling is to remain the method of piling which will reduce noise impacts of this element of construction.)

There is a small but beneficial impact and a very slight reduction in the adverse effect levels on some properties near the proposed road. However, overall there will be a direct, adverse and permanent road traffic noise increase and subsequent impact at 21 residential properties as seen in table B-8 (previously 23 in the initial report, as seen in table 15-7). Another 20 properties in the ‘greater than LOAEL but below SOAEL’ range, whereas in the initial report there were 22.

As would be expected, when looking at the appendix maps, those properties are located to the south of the proposed viaduct; Shelton Hall Gardens, Dalton Drive and Capel Close, Shepherds Lane, The Copse and others are more isolated areas of Berwick Road, Gravels Lane, Hencott Farm and Claybury House. Table B-8 and B-9 are important tables, worth reproducing here as it illustrates the traffic noise increases and decreases on properties.

13th September 2023

Environmental Protection has reviewed the latest noise information contained in the Supplementary Environmental Statement dated January 2023 (SEI Jan 23) which provides the following additional information:

1. An assessment of the night-time noise impact
2. An assessment of the effect of increasing the noise barriers from 2m to 2.5m.
3. Provides details of the noise level predictions at specific locations where noise is predicted to have a significant impact.

1. Night-time noise assessment

The WSP report concludes that the noise sensitive receptors impacted by night-time noise are in the same areas as those impacted by daytime noise and no changes to the findings of the original report have been highlighted or additional mitigation measures proposed.

Whilst the properties impacted by night-time noise are in the same areas as those impacted by daytime noise, there are some differences that should be highlighted.

Whilst overall there are less properties experiencing an increase in night-time noise there are more properties that are experiencing a significant adverse effect (i.e. where the increase in noise level is perceptible and the resulting noise level is above the LOAEL). When applying the night-time assessment, to the long-term change (2038 vs 2023), 111 more properties experience a significant adverse effect than there are in the daytime. When considering the short-term change (opening year 2023) there are 127 more properties that experience a significant adverse effect at night compared to in the day.

In summary when considering the results of the night-time assessment there are 127 additional properties that experience a significant adverse impact compared to the results of looking at the daytime results as presented in the original reports ES Feb21 Chapter 15 and SESA Aug 21.

2. Assessment of the effect of increasing the noise barriers from 2m to 2.5m

The report has assessed the effect of increasing the proposed noise barrier near Shepherds Lane from 2m to 2.5m, the report concludes that the increase in barrier height will only result in a 0.1-0.8dB increase in attenuation. This level of change would not be perceptible and therefore the increase in height is not considered beneficial when considering the increase costs and visual impact.

3. Noise level predictions at specific locations where noise is predicted to have a significant impact.

Predicted noise levels have been provided for a number of areas that are predicted to be significantly impacted. The impact for each area is summarised below:

- Shelton Hall Gardens/Dalton Close/Capel close/Brackley Drive/Pennywell/Holyhead Road – this is the largest area significantly impacted by noise 46 properties in this area have a major adverse noise impact with many having major increases in excess of 10dB and final night-time noise levels up to 51dB (which is 11dB over the LOAEL). One property on Shelton Hall Gardens would experience noise levels above the SOAEL in the night-time. Predictions indicate this property will have 3.5dB increase in noise level in the short term which will increase noise levels to 60dB (5dB above the SOAEL threshold). It should be noted that even if the road was not built this property is likely to experience noise levels above the SOAEL threshold due to its proximity to Holyhead Road.

- Shelton gardens – 4 properties have a long term moderate adverse impacts with noise increases up to 7dB and final night-time levels of 43dB only slightly above the LOAEL and daytime levels of 53dB are below the LOAEL.

- Alms Houses/Gravel Hill Lane/Ivy Cottage – 8 properties have a long term major adverse impact with noise level increases of up to 13dB and final night-time noise levels of 53dB and 63dB in the day (which is 13 and 8dB above the LOAEL).

- Coton Hill – Coton Mount, Corporation Lane and Berwick Road – specific data has only been provided for Berwick Road where 3 Properties will have a long term major adverse effect with noise level increases up to 10dB and final night-time levels of 51dB and 64dB in the daytime (which is 11 and 9dB above the LOAEL). Additional properties in Coton Mount and Corporation Lane are likely to have significant adverse impacts.

- Hencote, Cross Hill – 3 properties will have a major adverse impact with noise level increases up to 19dB and final night-time noise levels of 47dB and 59dB in the daytime (7 and 4dB above the LOAEL).

- Shepherds Lane - specific noise levels have not been provided for individual properties in this area but there are 5 properties which are likely to have a moderate adverse impact and 5 that are likely to have a major adverse impact.

Data was only requested for some areas but there are other areas that are predicted to have significant adverse impacts mainly some properties on the north side of The Mount (which are likely to have a major adverse impact) and some properties to the north of Mount Pleasant (which are likely to have a moderate adverse impact). Ideally a map showing all the properties that are categorised as having significant adverse impacts would make it clearer currently maps only show noise levels or increases but this does not necessarily relate to impact. A tabulated data listing every receptor predicted to experience significance adverse impacts – with both

absolute noise level and change – was provided in July by the applicant in response to this request.

Assessment of significance of adverse impact
When considering the data, it is important to understand how the significance has been assessed. The assessment considers both the effect level i.e., the effect the final noise level is likely to have and also the predicted change in noise level, to classify the significance of the impact. The noise effect levels were introduced by the Noise Policy Statement for England and can be summarised as

NOEL - No Observed Effect Level - This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise; (Day time <55dB)
LOAEL - Lowest Observed Adverse Effect Level - This is the level above which adverse effects on health and quality of life can be detected; (daytime 55-68dB, night 40-55dB) and
SOAEL - Significant Observed Adverse Effect Level - This is the level above which significant adverse effects on health and quality of life occur (daytime >68dB, night-time >55dB).

The combination of these effect levels and the magnitude of change results in an overall assessment of impact as illustrated below:

Noise Change dB LA10,18h		Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
Short term	Long term			
<0.9	0.1 – 2.9	Neutral (no effect)	Neutral	Slight – not significant
1.0 – 2.9	3.0 – 4.9	Neutral	Slight – not significant	Moderate to Large – further criteria to determine significance
3.0 – 4.9	5.0 – 9.9	Slight – not significant	Moderate to Large – further criteria to determine significance	Large – significant
>5.0	>10.0	Slight – not significant	Large – significant	Very large – significant

The effect is considered for the long term and short term for both the Do something scenario (i.e. if the road was built) and the do minimum scenario (i.e. if the road wasn't built). Some properties may experience a significant adverse impact even if the road wasn't built and hence this needs to be considered in the assessment.

Adding the night-time noise levels has resulted in additional properties categorised as experiencing significant adverse impacts, however it has not altered the proposed mitigation measures as the properties impacted are in the same localities. As more properties are significantly impacted at night

than in the day the night-time noise impacts are reported below to reflect the overall impact of the scheme.

Table 3.9 below shows the night-time short term impacts after all proposed mitigation is implemented.

Table 3-9 - Dwelling receptors – magnitude of residual night-time noise level changes in LOAEL and SOAEL bandings – Short Term Change (OY 2023) including secondary mitigation measures

Dwelling Receivers Predicted to experience residual night-time traffic noise level increases including secondary mitigation measures			
DSOY-DMOY change dB $L_{night, outside}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
<+0.9	1304	473	9
+1.0 – +2.9	2983	545	8
+3.0 – +4.9	264	52	1
>+5.0	155	115	0
Dwelling Receivers Predicted to experience residual night-time traffic noise level decreases			
DSFY-DMOY change dB $L_{night, outside}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
>-0.9	401	432	51
-1.0 – -2.9	170	535	97
-3.0 – -4.9	0	53	0
<-5.0	0	1	0

Table 3.7 below shows the impact of the long-term change.

Table 3-7 - Dwelling receptors – magnitude of changes in night-time LOAEL and SOAEL bandings – Long Term Change (2038 vs 2023)

Dwelling Receivers Predicted to experience night-time traffic noise level increases			
DSFY-DMOY change dB $L_{night, outside}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
<+2.9	4,251	1,376	26
+3.0 – +4.9	612	108	2
+5.0 – +9.9	181	112	0
>+10.0	0	54	0
Dwelling Receivers Predicted to experience night-time traffic noise level decreases			
DSFY-DMOY change dB $L_{night, outside}$	Noise Level < LOAEL	LOAEL < Noise Level < SOAEL	Noise Level > SOAEL
>-2.9	255	511	161
-3.0 – -4.9	0	4	0
-5.0 – -9.9	0	0	0
<-10.0	0	0	0

Proposed mitigation measures

The scheme proposes a quiet road surface over the entire scheme and additional measures are also proposed in some of the areas which are predicted to have a significant adverse impact as detailed below:

- Shelton Hall Gardens Area – a 2m barrier has been included in the scheme running from the new roundabout on Holyhead Road and finishes approximately in line with the end of Dalton Close. As the barrier finishes at this point it provides no protection for most of the properties in this area i.e. Dalton Close, Capel Close, Brackley Drive and Pennywell.
  The River Severn viaduct has parapets that are 1.5m high which will act as a barrier and have been included in the model. If the height of the parapets could be increased this could provide additional mitigation.
- Shelton Gardens – The section of road north of Shelton Gardens has a 2m barrier on the north side of the carriageway.
- Alms Houses/Gravel Hill Lane/Ivy Cottage – 8 properties have a significant adverse impact in this area. The entire road will have a quiet road surface, but no additional mitigation has been proposed in this area as a barrier would be ineffective as the distance between the source and receiver is very large.
- Coton Mount & Corporation Lane – the report advises that the distance between the source and receptor is very large and therefore a barrier would be ineffective. Furthermore, it would not be possible to build a barrier through the junction with Berwick Road.
- Hencote – the 3 receptors in this area have a major adverse impact with very large increases, the report advises that any barrier to protect these properties would need to be approximately 1.5km long due to the wide angle of view of the proposed scheme and distance from them. It is considered that the limited benefit is disproportionate to the engineering challenges.
- Oxon – The embedded mitigation included a 2m high barrier is proposed to the western end from the A5 Churncote roundabout to Holyhead Road (including the section adjacent to Oxon Touring Park) and the southern side of the Proposed Scheme carriageways to the east of Holyhead Road between the proposed B4380 Holyhead Road Roundabout and the Shelton Rough River Severn Viaduct.
  Additional secondary mitigation includes a 2m barrier on south between A5 Churncote roundabout and Little Oxon Lane these will provide mitigation to the proposed housing development between Calcott Lane and Shepherds Lane.

Summary

To sum up the overall noise impact of the proposed road scheme (including all proposed mitigation) when considering the latest report, in the short term (OY 2023) there will be 116 properties that experience a large adverse noise effect and 60 that experience a moderate to large adverse noise effect.

In the long term (2038 vs 2023) there will be 54 properties that experience a large adverse noise effect and 114 that experience a moderate to large adverse noise effect. In the long term no properties experience a significant improvement in noise levels.

5.3.15 **Environment Agency –** Not sufficiently reassured at this stage based on matters that need more detail and advise that the EIA needs to be robust, and risks/mitigation fully explored, prior to determination. However, as confirmed previously, should your Council be minded to grant permission we would consider potential conditions and other mechanisms proposed by the LPA.

26th April 2021

We have concerns, at this time, based on the information submitted within the Environmental Impact Assessment (EIA). The Environmental Statement (ES) is not sufficiently comprehensive. There are some gaps in key information and some aspects where detail/conclusions are not considered accurate. We consider the EIA is not robust. There are also suggestions about deferring some important considerations/issues until a future design phase which we would not agree with. We advise against the granting of planning permission.

Groundwater/abstraction protection**–**- one of the key constraints is the Shelton Source Protection Zone, associated boreholes and the Severn Trent Water (STW) Limited Shelton surface water intake on the River Severn. This is a critical, sensitive, water supply for Shrewsbury. The groundwater and surface water systems at Shelton, together with other groundwater assets in the area, provide a robust and resilient system that ensures continuity of supply to the area.

The road runs through Source Protection Zones (SPZ) 1, 2 and 3 for a public supply borehole. Given the location of the road through the highly sensitive SPZ1 we would raise concerns regarding the protection of the groundwater at this location – particularly the interchange around Shelton and the bridge crossing near the intake.

EIA Scoping Background

Our EIA scoping response advised that the ES should make an assessment of the measures envisaged to avoid (our preference through route location and design), reduce and remedy these effects.

We raised concern that there may be some impacts remaining and risks which could result in potential impact upon the majority of Shrewsbury's water supply. This will also be a key concern of Severn Trent Water Ltd as asset owner. We advised options to avoid this risk must be explored.

The first preference in order to avoid and protect these critical sources is for alternative routes to be selected.

As part of recent pre-application discussion, we advised that we had been involved in previous historical discussions about the proposed route (including environmental sensitivities) for the NWRR but based on our records, we were not formally consulted on the Options Assessment Report dated December 2017. It was confirmed that the EIA would pick up upon route and alternative design options and avoidance of environmentally sensitive sites such as the above. This will enable decision makers to take into account, linked to baseline data, the reasonable alternatives (including route) which are relevant to the proposed development and its characteristics, and an indication of the main reasons for the options chosen taking into account the effects of the development on the environment.

The current proposal still includes the roundabout within SPZ1 and the proposed route appears to have been re-aligned slightly further south at the Severn crossing point so has a slightly longer run through SPZ1/2.

We have always advocated an avoidance approach and one that selects the most sustainable option, with least environmental risk. But the current route appears to have been selected on other grounds and given that some route options, including those downstream of the intake, appear to be no longer available. That has left a situation where there is a likely significant risk at the chosen 'proposed' site.

The road design also includes the construction of a roundabout (where there is the greatest risk of collision and spillage) and attenuation basins, within SPZ1. In addition, the proposal includes hard engineering, deep piles and significant groundworks. With respect to spillage risk to groundwater and public water supply during operation, there could be irreversible impact. But the ES suggests that *the Proposed Scheme would result in a direct, temporary, short term not significant residual effect on groundwater. We would not concur with this conclusion.*

Our advice is in accordance with the following: Groundwater protection position statements
https://www.gov.uk/government/publications/groundwater-protection-position-statements

Shropshire Council Adopted Core Strategy 18: Sustainable Water Management which states that: "*Developments will integrate measures for sustainable water management to reduce flood risk, avoid an adverse impact on water quality and quantity within Shropshire, including groundwater resources, and provide opportunities to enhance biodiversity, health and recreation, by ensuring that*…. **New development enhances and protects water quality, including Shropshire's groundwater resources**".

Emerging Local Plan Review – (pre submission draft) DP19. Water Resources and Water Quality

Development must not adversely affect the quality, quantity and flow of both ground and surface water and must ensure that there is adequate water infrastructure in place to meet its own needs.

1. Development proposals which would lead to deterioration or compromise the ability of those water bodies covered by the Water Framework Directive to meet good status standards, both during construction and when operational, will not be supported.

2. Development proposals in a groundwater Source Protection Zones (SPZ) must show how they have:

a. Considered the potential to encounter shallow groundwater. If shallow groundwater is likely, the Council will expect the development to restrict the use of soakaways; and

b. Avoided direct discharge of hazardous substances to groundwater; and

c. Considered the potential for historic contamination to be encountered. Where historic contamination is likely, the Council will expect development to restrict deep penetrative foundation methods.

3. Proposals in Source Protection Zone 1 are not encouraged.

Groundwater protection

Notwithstanding the above, given the scale and environmental sensitivity of the development route, a number of significant data gaps remain. Within the EIA, we note that many of the reports are 'interim', relying on data to be provided by the delayed Phase 4 site investigation, or to be agreed at the detailed design stage. However, we would expect information to be provided as part of the EIA to give certainty on the principle of the proposal from a land use planning perspective. Therefore, at this stage we consider that further works are required before we are able to provide recommendations.

We have summarised the following technical comments which need to be addressed in future submissions. We would make further detailed comments upon the receipt of additional information:

1. We note from 10. 'Geology and Soils' Table 10-10 – Qualitative Risk Appraisal and Preliminary Conceptual Site Model "Low Risk Based on the lack of identified soil contamination and localised exceedances of limited contaminants in groundwater in Gis undertaken to date, no significant widespread sources of contamination are considered to be present. However, further site coverage is required particularly within the vicinity of the SPZs to confirm the depth to bedrock and any continuity between the superficial deposits and bedrock". Furthermore, the ES highlights that Phase 4 of the GI has not yet commenced and some aspects of design have not been advanced beyond a preliminary stage, particularly in the area between A5 Holyhead Road Roundabout and the Shelton Rough River Severn Viaduct; and, the proposed foundation piling works for the viaduct. Whilst the ES commits to further appropriate engagement with stakeholders (and we are aware from other correspondence that confirm the applicant is looking to produce further work within the planning determination period), we consider that

the data gaps are too significant at this stage. We therefore recommend that the outstanding Phase 2 and Phase 4 site investigation data are completed and the data assessed and used to inform the hydrogeological and conceptual site models.

2. We request provision of the completed (incorporating the Phase 4 SI data) hydrogeological model, including hydrogeological cross sections and showing groundwater levels recorded to relevant boreholes. From examination of the submitted documents it is apparent that the borehole logs for the site investigations have not been included. It would be helpful for a series of borehole plans breaking the route of the proposed road into sections, the relevant borehole logs for each section and the hydrogeological model for each section complete with recorded groundwater levels for each borehole to be provided.
3. Revision and completion of the piling report is required. From Section 5.3 of the WERA, “At this structure the present predicted safe piling depths and/or the levels of uncertainty regarding predicted depths to bedrock (or known depths of drift) present significant challenges to the detailed design of piled foundations. Accordingly, further GI (Phase 4) and/or refinement of pile design are required and planned. Piling of the viaduct presents Cont/d.. 4 the biggest construction risk (and potential significant impact) to the STW abstraction wells. In addition to the data gap of the Phase 4 SI, much of the detail remains to be confirmed at the detailed design stage, where it is proposed that the piling contractor will confirm the piling methodology. We appreciate the constraints around this, but particularly given the sensitivity and current uncertainty, we consider that there is a need for information to be provided as part of the EIA. We raise concerns in the absence of this. Involvement with piling contractors should be considered ‘upfront’, to confirm whether the proposal is feasible, for example whether CFA methodology will be utilised and how mitigation to avoid/prevent potential turbidity risks will be implemented. We note from the piling report that a 10m standoff from the base of the piles to the bedrock aquifer is proposed as a conservative measure, but again given the geological/SI data gaps it is uncertain how this will be achieved? This needs to be explored further.
4. Section 17.10.41 Road Drainage and Water Environment states “Given that the Phase 4 GI (scheduled early 2021) is outstanding, the aforementioned risks to groundwater receptors from cuttings and associated dewatering activities during construction will be assessed at subsequent stages, including the detailed design, of the project as the data becomes available. Risks to receptors and mitigations will be subject to review and updated accordingly.” Again we require completion of the Phase 4 data to inform these assessments as part of the EIA at the planning submission stage.
5. We do not agree with the decision to scope Midland Meres and Mosses Phase 2 Ramsar site / Hencott Pool Site of Special Scientific Interest (SSSI) out of the assessment (Section 17.4.2 Road Drainage and Water Environment), on the grounds of route alignment (south approximately 210m); and, no hydrological pathway. We consider that the SSSI must be included and all necessary SI required to inform this assessment should be undertaken. Whilst we agree that it is unlikely that there is a

hydrological connection, no evidence is supplied to demonstrate that there is no hydrogeological connection? The ground level around the road is c.80mAOD and the SSSI site surface is at c.75mAOD, so there is potential for groundwater flow towards it. Again consideration of geologies/borehole logs and provision of hydrogeological cross sections are required before this can be ruled out. This would inform the Habitats Regulations Assessment, WFD Assessment; route design and avoidance measures, potential mitigation.

6. We understand that a DQRA has been completed with regard to some operational incidents (i.e. multiple tanker collision at the Holyhead Road roundabout) based upon a suite of petroleum hydrocarbons. We flagged this at the EIA scoping stage. However, because of confidentiality concerns with STW, we have not been provided with this assessment and we are therefore unable to comment in detail at this time. This needs to be addressed and accommodation made around the confidentiality issues. Notwithstanding the above, we understand that the suite of chemicals assessed included petroleum hydrocarbons; however, it is not clear which fractions were included e.g. methyl-tert-butyl ether, which has high water solubility and persistence? As a conservative 'precautionary' (belts and braces) approach, we consider that further modelling for other mobile and persistent contaminants such as solvents (e.g. TCE) and chloride (e.g. road salting) should also be undertaken. Environmentally persistent perfluoroalkyl substances (PFAS) that might be used in fire retardant foams in the event of a vehicle fire should also be considered.

   What is the viaduct/detailed drainage design and plan for construction and operational phases, to demonstrate measures should a pollution incident occur?

   Drainage from the highway will represents one of the greater risks and will need greater scrutiny. Potential pollution of watercourses from road run off is to be mitigated by a number of attenuation basins containing retention separators and filters, some of which is subject to further work. This would rely on a comprehensive maintenance, management plan and monitoring programme to ensure that these attenuation basins continue to be effective in perpetuity.

7. Appendix 10.4 Borehole Decommissioning Plan, Table 2-1 – Borehole installation details, should be revised to give comprehensive justifications where the intention is not to decommission the borehole. A plan of the boreholes to be retained for baseline and post construction monitoring should be provided.

Water Framework Directive (WFD)

The Water Framework Directive (WFD) aims to prevent deterioration in the status of aquatic ecosystems, protect them and improve the ecological condition of waters.

The WFD assessment provides details of the catchments which are

relevant to the scheme. The River Severn is listed as Moderate status. It fails chemical status for WFD.

Development should aim to achieve ‘good status’ in water bodies. The objective is to achieve Good status by 2027. Planning Authorities have a duty under the WFD to take account of the River Basin Management Plans (RBMPs) and to help deliver WFD objectives.

Note - NPPG confirms that ‘where water quality has the potential to be a significant planning concern an applicant should be able to explain how the proposed development would affect a relevant water body in a river basin management plan and how they propose to mitigate the impacts. Applicants should provide sufficient information for the local planning authority to be able to identify the likely impacts on water quality. Where it is likely a proposal would have a significant adverse impact on water quality then a more detailed assessment will be required. The assessment should form part of the ES…’.

We have some comments below on the report submitted but in summary, we feel the final mitigation is not provided/certain and some further work is necessary to inform the overall assessment.

The WFD Compliance Assessment is appropriate and valid in its overall method. The Geomorphological Assessment adds a very helpful additional layer of findings, data and understanding (including the modelling) to validate the WFD Assessment. However, there is no detailed geotechnical design of the slope stability measures as part of the mitigation. We also do not concur with the Groundwater Waterbody conclusions based on the above groundwater comments (need for further GI work etc.).

Given that the River Severn fails Chemical Status for WFD, and the objective is to achieve ‘good status’, it is strange that 'Table 3-3 – WFD quality elements scoped into the assessment for each of the waterbodies…’ does not appear to consider any Priority substances or Priority hazardous substances?

Appendix 17.3 WFD Assessment (Feb 2021)

In terms of the WFD Groundwater Waterbody(s), the key points are that:

- Hencott Pool SSSI and RAMSAR site – from Appendix 17.3 Table 6-6 “For Hencott Pool there is no credible hydrological/ hydrogeological pathway between the Proposed Scheme and the GWDTE.” So no mitigation required. We have already raised that further investigation is required to demonstrate that there is no hydrogeological connection? Should connection be established then the site will need to be scoped into the WFD assessment for further investigation and review.

- Road salting is an operational activity that can lead to aquifer deterioration. Further WFD assessment is required and we have already flagged that it should be considered as part of the revised DQRA.

- Update based on groundwater assessment revisions is necessary.

On the fluvial/surface water Waterbodies the main comments at this stage are as follows: 2.4.4 - here it is stated that Phase 4 GI has not yet commenced therefore not all relevant info is available for the Ground water

Body units.

Table of WFD quality elements scoped in. Here Alkmund Park Stream and Bagley Brook west are scope for Fish, Benthic inverts, Aquatic flora, and Phytoplankton due to the watercourses drying up last spring and being seen as discontinuous.

4.2.3 - the current scheme hasn't been active since 2006 as implied. Up to page 26 the collected field data and observations (due to the work on the Geomorphological assessment) exceeds the minimum required for the 'surface water' WFD Waterbodies.

5.2.6 - in this section it states that the hard engineering impacts on the banks will be mitigated by an equivalent length of habitat. It is not clear what and how this will be achieved. Please see our comments on biodiversity and net gain, in relation to the need for clear mitigation and enhancement of an equivalent length of habitat.

6.3.2 - Table 6-7 WFD compliance for scoped in waterbodies. We can comment further upon production of further groundwater assessment.

Appendix 17.6 Geomorphological Assessment (Optimised) Feb 2021

1.1.2 - importantly mentions the Western Bluff (Shelton Rough) Left Bank which has some instability and needs re-profiling. This is reinforced by an awareness of recent slumping and lubrication planes causing a land slip nearby, at this location.

1.3.3. – We acknowledge this application focuses on assessing and evaluating the existing river process and regime within the local reach.

Whilst we have some minor queries over some of the assertions, the methodology, assessments (especially the field work and modelling), and findings go beyond the minimum required for the proposed road scheme, on the viaduct. Again, we would advise that for mitigation/compensation of hard bank engineering, the scheme should be demonstrating enhancement and a compensation ratio so as to achieve Biodiversity Net Gain (ideally on river but could be wetland related).

We would advise you consider and seek advice about geo-technical issues including the re-profiling of Shelton bank but also to inform wider proposals and ensure that the groundworks and infrastructure e.g. attenuation pool at the top of the slope are feasible and will be appropriately constructed, monitored and maintained.

Linked to the Flood Risk Assessment and the observation that most of the area affected by the road has high or medium susceptibility to groundwater flooding, we would also recommend you seek advice from your Flood and Water Management team (Lead Local Flood Authority). This is in relation to potential groundwater flooding and bank stability, the appropriateness and feasibility of attenuation basins/infiltration systems/drainage channels. The EIA suggests this is subject to further evaluation.

Biodiversity

We have been consulted on the scope of the species and habitat surveys that were conducted for the EIA and are satisfied with the approaches and methodologies that have been used. As some of the surveys were conducted two or three years ago (i.e. assessment of some waterbodies for

GCN 2017, breeding bird survey 2018) it will be important to undertake new surveys of habitat and species if there are any delays with the planning permission, or any redesign of the scheme, as well as being required immediately before site clearance and construction in order to ensure that no legally protected species are harmed.

Table 8-3 lists elements scoped into the environmental impact assessment. The Severn Estuary Ramsar, SAC and SSSI which needs to be scoped into the assessment due to the potential impacts of the scheme on migratory fish has not been included in this table, however it is noted that the Severn Estuary designated sites have been included in the Habitat Regulations Assessment and that mitigation measures have been proposed.

Fish

It is disappointing that the fish survey report doesn't include details of the fish habitat walkover survey of the main River Severn. We had asked the ecological consultants to survey the habitat available to fish at different life stages (i.e. spawning, juveniles and adults) within the zone of influence of the scheme and to assess the potential impact that the scheme may have upon fish, but this has not been presented. It is also stated that crayfish e-DNA and a lamprey survey was carried out in September 2020, yet the fish report does not include these results. We would like to see these results to ensure that these surveys were undertaken and so that we can offer comment on the results.

Mitigation for impacts of noise, vibration, lighting and water flow changes during construction and operation have been included in the design and draft Construction Environmental Management Plan (CEMP) to ensure that there are no residual adverse effects on the fish populations in the River Severn at Shrewsbury which are integral to the Severn Estuary SAC and Ramsar sites. The critical fish spawning and migration periods should be amended to; 1st May to 15th July inclusive and 15th September to 31st December inclusive to include critical timing for shad as well salmon.

Impacts to wildlife sites and biodiversity

The Biodiversity Chapter of the EIA concludes that there will be impacts of: increased nitrogen deposition on two local wildlife sites and ancient woodland; mortality risk for amphibians on the carriageway, risk of collision of bat and birds, badgers, amphibians and otters; the loss of eight veteran trees, which are considered to be an irreplaceable habitat, 29 high quality trees, 34 moderate quality trees, wet woodland south of Alkmund Park Wood (a priority habitat for conservation as defined by the NERC Act) and 4.03km of established hedgerow which in this arable dominated landscape will be a significant loss of biological diversity, loss of habitat and fragmentation of corridors for birds, invertebrates, bats and mammals.

Looking at species and issues within our remit, the proposed 'biodiversity mitigation' measures highlighted in chapter 8 of the EIA and the CEMP are broadly acceptable e.g. monitoring by an ECoW, minimisation of noise and lighting during the construction phase, landscape planting, mammal underpasses. However these measures do not mitigate for all of the permanent loss of habitat, severance of wildlife corridors, or increased nitrogen deposition.

Despite the proposed provision of underpasses and fencing to mitigate for

the severance of habitat and to offer measures to avoid traffic for badger and otter it is known that highways in the area cause death and injury to these legally protected species. We collect otter mortalities for post-mortem on the existing minor and major roads in the area most years, particularly when watercourses are in spate. Badgers and otters will not always choose to use underpasses that have been designed for them, so despite these mitigation measures the new road scheme is very likely to cause further casualties. Considering that otters only have two or three offspring a year, are not sexually mature until two and a half years old and require on average 18km of territory the death of one otter every few years on the proposed road, or potential associated infill development, would likely have a significant impact on the local area otter population.

It is stated in table 8-8 that the attenuation basins will provide standing shallow waterbodies with a grassland edge as mitigation for collision risk to wintering wading birds. Whilst new wetland habitat is always to be welcomed these attenuation basins will be lined to ensure that groundwater is not contaminated etc. The attenuation basins are not likely to provide the muddy, wet pond edges that wading birds require to forage invertebrates in and the attenuation basins or increased flood attenuation areas will not compensate for the impact of vehicle collisions from the new road which is highlighted in the table as being an impact. Whilst hop overs and carriage planting may mitigate some collisions they are unlikely to prevent all collisions.

Opportunities to replace ‘wet woodland’ are to be pursued as part of detailed landscape design. This contrary to what we previously advised in terms of the potential to improve an existing area of wet woodland which could be further enhanced as part of the scheme, any BNG proposals. Unplanned replacement of this priority habitat is not considered acceptable. We would welcome provision for this habitat to be included. Again off site locations could be used in accordance with Biodiversity Net gain principles of the Government’s 25 Year Environment Plan, NPPF policy and your Policy MD12 (adopted SAMDev).

Biodiversity Net Gain (BNG)/enhancement

The Government’s 25 Year Environment Plan, and NPPF requires developers to achieve net environmental gain. The Environment Bill is due to legislate for the provision of a mandatory 10% ‘Biodiversity’ Net gain from development. This is in line with NPPF Policy 118 requirements to achieve “net environmental gain” from development, NPPF Policy 170 “to protect and enhance valued landscapes, sites of biodiversity and geological value and establish coherent ecological networks”, and Policy 175 (d) – “development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity”.

A Biodiversity Net Gain Calculation has been undertaken for the scheme and the results are presented. However a detailed explanation of the methodology used and the results have not been provided. We would have welcomed a more in depth review of this, as well as one plan and list of all of the proposed provision of environmental enhancements. The information

presented is not too clear.

Section 8.13 – Enhancement Measures, of the ES concludes that overall the proposed scheme will not deliver BNG. If BNG cannot be achieved within the footprint of the development then off site provision could be used to deliver it. Further detail and a summary of enhancement should be presented as part of the EIA.

Linked to our comments on the WFD Assessment, Section 5.2.6 states that the hard engineering impacts on the banks (Shelton Rough) will be mitigated by an equivalent length of habitat. We would advise that additional bankside habitat enhancement as well as the mitigated length should be provided for in the plans.

Hencott Pool Midland Meres and Mosses (Phase 2) Ramsar site We would defer scrutiny of the assessment of the potential impacts to this site to Natural England.

Climate Change

Our EIA scoping encouraged consideration of climate change. In the face of climate change, EIA and SEA should translate global or national mitigation and adaptation targets to project and plan levels of decision-making. Integration of climate change and its impacts development of projects is critical (consideration of climate change risks and adaptation measures), infrastructure projects are particularly sensitive due to their long lifetimes.

Paragraph 2.1.5 of the EIA Scoping Report suggested that the proposed scheme will help reduce carbon emissions, and will improve air quality in areas where people shop, work and live.

As part of strategic climate change objectives, we previously suggested some analysis of the carbon and air quality emissions associated with the building and use of the road etc. Carbon emissions and air quality can impact human health directly as well as exacerbating climate change. Climate change will impact local weather patterns which will impact vegetation and the water levels and temperature of local water features and the species that depend upon those habitats. An analysis of the impact of carbon and air quality produced by the road construction on notable habitats (priority habitats for conservation as defined under the NERC Act 2006, rivers and streams, standing open water, purple moor grass, rush pasture, lowland fen, deciduous woodland, hedgerows, wood pasture and parkland) should be included in the EIA.

We understand that Air quality assessment should be part of the Habitats Regulation Assessment for Hencott Pool Ramsar site. We wouldn’t formally comment on that.

Carbon calculation

The Environment Agency has pledged to become a carbon neutral organisation by 2030 to combat the climate crisis which risks increased flooding and drought events and loss of biodiversity and we encourage other organisations and plans to be carbon neutral. A calculation of the carbon output from the construction and operation of the road does not appear to have been provided to understand the potential impact of the

scheme, compared to alternatives.

Works affecting the construction (including temporary works) and post construction/operational phases

I also refer to an Email of 30 March 2021, from WSP (the applicant's consultant), requesting a meeting with us to discuss some issues (some included below) including working methodology for the River Severn floodplain/other requirements.

Some of these will be joint planning and permitting matters e.g. those aspects that might be 'controlled' through another Environmental Permitting Regulation (regulatory) regime. At the pre-application stage we confirmed the need to consider the appropriateness of the development and for the EIA to provide sufficient detail on such matters in so far as the works affecting the construction (including temporary works) and post construction/operational phases (including maintenance and monitoring of…what if scenarios and remedial options). Information is required to assess the level of risk and inform design mitigation measures. We note the email suggests discussions may also inform any subsequent addendums to the planning application.

For example, the Flood Risk Assessment (FRA), further comments below, should confirm impacts of temporary works and whether any mitigation is necessary, what and how that will be delivered. It should provide details on how the permanent flood mitigation area would be constructed and implemented, normally prior to any other work in/on the floodplain. It should provide commitment and detail of a Flood contingency plan. How are haul roads on the floodplain being dealt with? (Levels, type of hardcore) etc.

Piling and pile caps – These should be picked up in the EIA:

- Piling methodology
- Requirements for piling plant – Biodegradable oils etc.
- Movement of piling plant in the event of a flood
- Temporary caissons for piling/ pile cap construction, can these be raised above the flood level to avoid excavations being flooded
- Can multiple locations be constructed simultaneously?
- How to deal with any water during / piling excavation or following a flood event
- Pier construction o Requirements for scaffolding on the flood plain
- Concrete construction on the floodplain
- Steelwork erection
- Crane location and crane pads
- Delivery of steel work on to site and fabrication on the flood plain
- Temporary works during beam lifts

The Outline Construction Environmental Management Plan, 4.7 (Appendix 3.1) suggests Method statements "would also be submitted to the enforcement agencies for information". This approach is not adequate to protect controlled waters/WFD and we need to see further detail up front

linked to the above.

Flood Risk

Parts of the route are located within Flood Zone 3. We note the FRA as submitted. The fluvial flood risk modelling work provided, including climate change analysis (up to 70%) for the proposed road infrastructure is considered acceptable, as a baseline for the FRA/EIA. We have previously highlighted to you that new fluvial Climate Change allowances for Peak River flows are to be published (planned this year) but without prejudice that looks relatively similar to existing older modelled information for this part of the Severn, for the relevant design events.

We welcome the proposals for two flood storage compensation/enhancement areas, one around Shelton and the other towards Alkmund Park stream. From a fluvial perspective they offset some nominal impact but offer some flood risk reduction in line with planning policy objectives. The storage volumes should be maximised and aim to offer 'level for level, volume for volume' benefit at all return periods. Linked to biodiversity, these could be designed to provide wider multi-functional benefits i.e. there is scope for these flood storage areas to be new wetland habitat to offer water quality and ecological/biodiversity enhancement.

Similar to groundwater flooding, we would recommend that you seek the comments of your Flood and Water Management team (LLFA) on surface water 'quantity' with reference to peak rainfall allowances.

Summary

In summary, whilst we have had some pre-application discussions with WSP on elements of the proposal, some of the assessments are ongoing. There are a number of areas where information is lacking and there is uncertainty and risk. We would recommend you seek further information to ensure a robust EIA and assist decision making.

21st October 2021

The main change in the latest submission appears to be the shortening of the viaduct with an extended earthwork embankment. We have reviewed the information, as submitted, but unfortunately there are still some gaps in the assessment work and points from our previous reply (26 April 2021) that have not been addressed. The amended plans have not removed the need to address these previous fundamental points but the revisions have opened up some further questions.

On that basis we would maintain our previous concerns and recommend that further information is necessary to be submitted, including some critical assessment work, to inform a robust EIA, some of which is still being produced.

We would recommend that you seek further information from the applicant to address these points and help remedy deficiencies in the current Environmental Statement (ES).

Groundwater

The comments in our letter of 26 April 2021 on Groundwater/abstraction

protection still stand. We have made it clear that we expect this information to be provided to inform a robust EIA and confirm the appropriateness of the proposals etc.

We would reiterate Points ‘1 to 7’ in our ‘Groundwater protection’ section of our previous response.

In addition, we understand that borehole assessment work is ongoing but we haven’t formally seen a scope of work or methodology for the drilling.

Phase 4 site investigation data should be completed and the information assessed and used to inform the hydrogeological and conceptual site models. Given the scale and environmental sensitivity of the development route, a number of significant data gaps remain. We would expect to see some relevant cross sections and information from borehole logs as part of the further information.

Hencott pool SSSI Ramsar site

We have seen a scope of works for Hencott investigation drilling and understand that work is looking to commence to assess the potential impacts of the scheme on Hencott Pool SSSI. As suggested previously, this is essential to the assessment of likely significant effects. We are aware of Natural England’s concerns and would comment further upon receipt of the assessment relating to groundwater and hydrogeological linkages/effects. Whilst a relevant consideration for you, we would not comment on air quality impacts/Nutrient Nitrogen deposition, to the site.

We have advised that, in terms of the Site Investigation (SI) the applicant intends to produce as part of the planning application (concerns we raised previously in relation to hydrological/ hydrogeological supply mechanisms to the SSSI/Ramsar); there is mention (Page 3 of the scope) of the intention to collect undisturbed samples and undertake in-situ Standard Penetration Testing (SPT). Based on the location of the SI, this seems to be focussed on investigating the geotechnical aspects of the road crossing (over the Hencott overflow stream). We would also expect targeted SI to be undertaken (we haven’t seen a full scope of works for this element) to look at the SSSI receptor and address the concerns raised. We note the document refers to potential ‘Hydrological effects’. We would expect the results to inform the EIA conclusions and associated HRA considerations.

DQRA

We previously commented that this was not formally submitted. Separate to planning, we have just received and are in the process of reviewing the DQRA, under a non-disclosure agreement. This is substantive information and we will look to share some comments with you on that as a follow on response.

For information, in terms of potential contaminants, we are aware that WSP have also been in touch with Shropshire Fire & Rescue Service for confirmation of the use of PFAS containing firefighting foam. It has been confirmed that they are moving away from these types of foams to fluorine free Moussol Foam.

Constructional phase and temporary works

We previously sought some information regarding the potential impacts and

mitigation etc. for construction activity and temporary works. These were not part of the original EIA. We have some comments on those aspects below and have highlighted where they cross over with other assessments/matters.

Supplementary Environmental Statement Chapter 14: Materials and Waste Addendum, further details are still required regarding stockpiling of materials for reuse on site and details of the criteria for re-use of materials. It is noted that material will need to be imported for fill. Please provide details of the criteria to assess suitability for use.

Linked to the groundwater investigation work, we would seek further information in this section relating to the construction works and crane pad for bridge construction (including any associated piling detail/pollution controls). This would be informed by the Ground Investigation works.

Fluvial Flood Risk

The additional embankment will reduce the capacity of the flood plain and as such following previous discussions the development is required to demonstrate how this lost capacity will be compensated, with flood risk betterment (using 100 year plus 70%). The Flood Risk Assessment (FRA) addendum (August 2021) demonstrates this in Table B-1. This shows that in all but the 51.2 to 52mAOD level envelope (a negative) the compensation increases the capacity of the floodplain. The revisions to the design of the length of the embankment has been allowed for with a re-profiling of land north and south of the road to increase the flood storage. Increase in velocity and water level is shown in Table B-2 of the amended FRA.

Previous discussions also expressed a concern that the temporary works would be significant for a project of this scale and we expected the EIA to include detail of such. The build of the viaduct would require both access and working platforms, piers and coffer dams, within the floodplain.

The FRA addendum states that the access road will be at ground level by removing the topsoil and replacing with 400mm of hardstanding material. This is a suitable approach from a flood risk perspective as it poses no obstruction to the flood flow.

The construction of the viaduct will require the installation of temporary working platforms and sheet pile cofferdams within the design floodplain. These will be raised above the floodplain and so will both pose an obstruction to flood flows and reduce capacity for the period of time they are in place. This could be for some considerable period of time (note our work exclusions, related to our permitting). The FRA doesn’t fully detail but suggests that the work programme allows for this work and associated necessary working platforms to be in place between March and September in the drier months of the year. The FRA also states that Phase 1 of the works will include the excavation of the planned flood storage compensation. This ordering of the works is acceptable.

The FRA states that the temporary works will increase the level of the 1 in 100 year flood upstream by up to 0.1m during Phase 5b, where the temporary works will be establishing a larger working platform. During phase 1 this level increase will be no greater than 2mm in all return periods.

The only property projected to be potentially impacted by these level rises is the River House property upstream. This property is 900mm above the 1 in 100 year flood level and so the increase of 100mm is not seen as a significant additional risk to the property.

However, in line with latest climate change guidance, we would expect the FRA to utilise some climate change allowance for temporary/construction works. Whilst it may not significantly affect the FRA conclusions, in this instance the 1 in 100 year with a 17% increase (peak river flows) should be applied, to cover this management catchment, noting the likely duration and construction period for works. The FRA should be amended accordingly on this basis.

We also recently received a copy of the supporting Flood Modelling, from WSP, we are currently reviewing this in relation to the River Severn and Alkmund Park stream assessment.

Our previous reply outlined that some of the working methodology for the River Severn floodplain/other requirements are joint planning and permitting matters and some aspects might be 'controlled' through another Environmental Permitting Regulation (regulatory) regime. https://www.gov.uk/guidance/flood-risk-activities-environmental-permits

For example, Flood Risk Activity Permit(s) would be necessary for any works/activity (such as the haul road, Shelton viaduct crossing works, piling, bank stability, construction); on/over or within 8 metres of a Main River channel (River Severn) or within the design 'floodplain'

Comments relating to impact on fish and noise mitigation are in our previous reply. With regard to the large floodplain on the left bank, when rivers are in spate fish will enter the floodplain area to avoid flows and seek food and/or spawning habitat. Fish need to be able to get back to the water and this could be prevented by the construction or landscape works during (or post) construction. We would expect a clear pathway for fish to return to the river as water levels recede.

Geomorphology/Bank Stability/Water Framework Directive (WFD) assessment

Some additional information, to cover the revised design, is provided in the Geomorphological supplementary evidence 17.6. We note the conclusion that there is 'no notable' change to stream power, bed shear, erosion/deposition etc. either during the build or on completion. Given the minor amendment, in terms of the revised design, we feel this is reasonable conclusion subject to no dramatic change/impact from the Shelton Rough and bank engineering solutions. However, we would reiterate comments in our previous reply, in that there are still outstanding matters within this section of the ES in terms of the geotechnical solution for Shelton Rough. Until a solution (following appropriate investigations into the issues) is provided we cannot comment on appropriate compensation and mitigation. The same is also true for any hard engineering to the banks of the river beneath the bridging point which would have to be considered along with the geotechnical slope stability issues as they may well interact/influence one another.

The WFD report is representative for surface waterbodies but there are still data gaps to inform the ground waterbodies (our previous comments on

Appendix 17.3 WFD Assessment, Feb 2021). This relates to considerations for the potential interaction between the piers and the groundwater bodies and the supporting waterbodies for Hencott Pool RAMSAR site, as part of that overall WFD assessment. We consider that the applicant needs to fully test their assumptions about the relationship between the groundwater and surface water of this site and any proposed works that may interact with it. Some outstanding points:

- No design or detailed design options for Shelton Rough geotechnical treatment/solution(s); piers.

- No finalised design for required engineering/protection to the banks of the River Severn beneath the bridge/viaduct and the proposed compensation/mitigation measures that relate to these.

- Links to BNG and water environmental improvements. We previously advised that additional bankside habitat enhancement as well as the mitigated length should be provided for in the plans.

Biodiversity Net Gain (BNG)/enhancement, Ecology

We previously provided comments on BNG and enhancement opportunities and these still stand. We would expect this application to maximise opportunities and provide a comprehensive suite of BNG given the scale and nature but also as a Council exemplary, flagship scheme.

We previously noted Section 8.13 – Enhancement Measures, of the ES concluded that overall the proposed scheme will not deliver BNG. If BNG cannot be achieved within the footprint of the development then off site provision could be used to deliver it. Further detail and a summary of enhancement should be presented as part of the EIA.

We would suggest BNG needs to be re-calculated using metric v3. The BNG report needs to include details of the habitat classification and condition assessment chosen so that they can be scrutinised as well as the overall metric score. BNG calculation needs to include the extension of the application boundary for additional habitat creation. Provide details of the locations of the Modular River Physical (MoRPh) cross sections used to assess the riverine BNG. What options are there?

We note the current reports focus on trees and some additional clearance of trees, e.g. at willow pool for a haul road. We previously commented on opportunities to replace ‘wet woodland’ being pursued. This is contrary to what we historically have advised in terms of the potential to improve an existing area of wet woodland which could be further enhanced as part of the scheme, any BNG proposals. Unplanned replacement of this priority habitat is not considered acceptable. We would welcome provision for this habitat to be included. Again off site locations could be used in accordance with BNG principles of the Government’s 25 Year Environment Plan, NPPF policy and your Policy MD12 (adopted SAMDev).

No proposed mitigation options for loss of wet woodland are details of replacement and some enhancement need to be incorporated.

There is also no proposed mitigation and BNG for linear river habitat/water based, this is not considered acceptable.

The potential of the new (revised) design i.e. bridge piers, embankment,

any changes to lighting, any overhead cables, tree and hedge loss should be considered at landscape scale for impacts relevant to foraging and commuting protected species, including otter.

The temporary excavation will remove the in-situ soils to the north of Shelton Lane, in the area of the proposed attenuation pond at the crest of the bluff, and across the southern and central portion of the bluff slope to allow the temporary track to be constructed. The environmental impact of these changes if any, don't appear to be in the additional biodiversity EIA amendment.

3rd May 2023

Still have some concerns as detailed below, including some deficiencies/omissions within the EIA report. We request that further information is submitted, and could not advise you to grant planning permission, subject to planning conditions, at this time.

We have previously raised concerns on the information submitted in relation to several key elements of the proposal in this location. Please refer to our formal 2 letters of response dated 26 April 2021 and 21 October 2021 in response to formal consultations.

We have had pre-application discussion (prior to re-submission of further information) and reviewed some documents with the applicant's consultant WSP since our last formal reply. Discussions have also been held with Severn Trent Water Limited (STW).

Groundwater and water supply

Having reviewed the key supplementary environmental documents evaluating the potential risk posed by the application to the groundwater environment, our outstanding concerns remain focused on the proposed development within the Drinking Water Protected Area and Source Protection Zones designated around the Severn Trent Water public water supply sources. This reflects our concerns about the sensitivity and criticality of the Shelton potable water supply, which is a strategic resource, on which continuity of Shrewsbury's drinking water relies.

We have previously commented on alternative route provision for part of the route and advocated an 'avoidance' approach, one that selects the most sustainable option, with least environmental risk to avoid impact, under EIA principles. In line with EIA and precautionary principle, impacts can be avoided by feasible alternatives, including certain site or design elements, to identify and ensure the best possible environmental option. We advised that progression of the current route in this would be complex, it is highly sensitive and there are risks that need to be fully understood/accepted if this is to be pursued.

The road design includes the construction of a roundabout (where there is the greatest risk of collision and spillage) within Source Protection Zone 1 and attenuation basin in Source Protection Zone 2. In addition, the proposal includes hard engineering, deep piles and significant groundworks. With respect to spillage risk to groundwater and public water supply during operation, there could be irreversible/significant impact.

The main outstanding concerns of the EA in relation to the scheme can be summarised as follows:

- Conceptual Hydrogeological Understanding - Clarification is sought over the use of Welsh Bridge river level data to establish comparative river stage to groundwater head elevation relationship at Shelton. Site specific river level data at Shelton needs to be collated to re-evaluate the comparative river stage to groundwater head elevation relationship at this location. Uncertainty therefore remains about the precise proportion of river water entering this (surface water to groundwater) source pathway receptor linkage at this location and some of the pathway assumptions considered under the DQRA.
- Piling Works Risk Assessment - We disagree with the EIA conclusion that overall, risks attributed to piling works for Shelton Rough River Severn Viaduct are considered **very low to negligible** at Pier 1 (critical support foundations within source protection zone 2 penetrate the Basal Sand and Gravel deposits in hydraulic continuity with the sandstone aquifer and most proximal to the public water supply abstraction). This ‘very low to negligible’ risk designation is inconsistent with the recognised need to develop the additional monitoring boreholes within source protection zone 1 and 2. Furthermore, WSP acknowledge the sensitivity of the public water supply and stringent regulatory turbidity limits and state that further reassurance is required with the need to deploy, develop and adopt the turbidity sondes and protocols. This reflects a perceived level of potential risk at Pier 1 incompatible with the very low to negligible risk stated here.

The outline principles in Section 9 of the Piling Works Risk Assessment (Revision 4) provide a good initial framework. However, these need to be expanded upon to draw out and agree in detail the proposed Piling methodology, monitoring protocols, trigger criteria and contingency action plans (including costings/sources of funds for the initial investment in and recurring expenses for implementing the specified proposed measures). There must be a clear and concise set of triggers and contingency action plans agreed for all reasonably foreseeable scenarios identified from the piling risk assessment. This document needs to be developed by the applicant, in consultation with Severn Trent Water, as the public water supply asset owner and operator, and the Environment Agency as Environmental Regulator.

We consider and have previously advised, that sufficient detail should be provided within the EIA on this.

We see this as the key document in which risk and mitigation control is being vested to provide assurances for the continuity of public water supply

sources for Shrewsbury in context to the proposed development at Shelton.

We therefore raise concerns in the absence of sufficient certainty and the potential significance of impact/risk to the public water supply.

- Detailed Quantitative Risk Assessment (DQRA) - Further consideration of the surface water- groundwater interaction is required and whether additional potential pollutant pathways (PPL) need to be included in the DQRA/dispersivity modelling.

DQRA parameter input ranges and outputs require further detail, justification and/or sensitivity analysis before the model output can be accepted.

The overall risk categories result in moderation of the sensitivity of the ultimate receptors. The DQRA and drainage strategy allude to several key mitigation measures for which we require further clarification/detail at this stage. These are primarily the road drainage design (requirement for sealed drainage in source protection zone 1 and 2), a proactive preventative maintenance/road operational manual including securing funding requirements and an emergency response plan including details of emergency funding contingencies.

- Dispersivity - We seek some clarification around the model parameters. No information is provided on hydrodynamics around the drinking water intake, or how well the model replicates the change to river flow patterns that would be expected to be generated by the abstraction in the vicinity of the intake. There is potential for pollution/spillage to affect public water supply. In the event of an accident, the most desirable mitigation measure would require the retention of any vehicles on the viaduct. Any resulting pollution spill must also be retained on the decking area and within the sealed road drainage system to prevent impact on the river directly below. Further clarification is sought on the containment level design proposed for the viaduct barrier system. Given the sensitivity of the setting and the immediacy of the potential risk to the public water supply, we seek assurances that the barrier system is of a ‘high containment level’.
- Road Drainage - Based on the drainage layouts submitted, it is not clear how the Drainage Strategy specification for sealed drainage systems is to be implemented in Source Protection Zone 1 and 2 for Shelton. Filter drains and soakaways also appear to be present within these zones. On this basis we have significant concerns and further details should be provided to demonstrate that the drainage proposals are in line with the Drainage Strategy and higher engineering specification demanded by this environmentally sensitive location. There is potential to impact Severn Trent Water’s Public Water Supply.

In addition to the above matters, ensuring the long-term integrity of the proposed road drainage systems is a fundamental mitigation measure in term of protection of the surface water and groundwater environment and ultimately water supplies. We would therefore require details of a proactive preventative maintenance plan, including how funding will secured in the long term to support its implementation.

The remedial response to any spillage event (short, medium and long term)

is also key to managing risks to the water environment. We would therefore wish to see more site-specific detail included in Shropshire Council's Multi-Agency Recovery Plan (2014) and/or similar bespoke document for the Shelton Drinking Water Protected Area; including emergency funding being available if required.

Further details to avoid or mitigate risk might include reduction of speed on approach to the roundabout and use of appropriately worded signage to delineate the Drinking Water Protected Areas and incident response actions, should be considered.

Other matters:

Geomporphology

SEI App 1.P. Bank Protection and SEI App 6. F Geomorphological Assessment The latest river bank protection design iteration has been informed by our discussions and is generally acceptable. The modelling and assessments within the Geomorphological Assessment have demonstrated that the degree of encroachment and influence on river processes is not significant in terms of the local river energy and natural processes (bed shear, stream power, and velocities) generally occurring within this reach of the river. We are generally satisfied with the design and the scope of the assessment and the methodology/evaluation procedure, the consequent findings and conclusions. Links to Biodiversity Net Gain and water environmental improvements. We previously advised that additional bankside habitat enhancement as well as the mitigated length should be provided for in the plans.

Water Framework Directive (WFD) Assessment (SEI App 6)

The Water Framework Directive (WFD) (England and Wales) Regulations 2017, aims to prevent deterioration in the status of aquatic ecosystems, protect them and improve the ecological condition of waters. The WFD assessment provides details of the catchments which are relevant to the scheme. The River Severn is listed as Moderate status. It fails chemical status for WFD. Development should aim to achieve 'good status' in water bodies. The objective is to achieve Good status by 2027. Planning Authorities have a duty under the WFD to take account of the River Basin Management Plans and to help deliver WFD objectives. In terms of the groundwater setting, the proposal area falls within the Shropshire Middle Severn Permo-Triassic Sandstone East Shropshire Groundwater Body. Under WFD this groundwater body is classed as poor status and 'at risk' of deterioration from both a quantitative (water resources) and qualitative (water quality) perspective. We must therefore ensure that development doesn't result in any further decline (deterioration) of the current poor status and where possible, work towards achieving 'good status'.

Note - NPPG confirms that 'where water quality has the potential to be a significant planning concern an applicant should be able to explain how the proposed development would affect a relevant water body in a river basin management plan and how they propose to mitigate the impacts. Applicants should provide sufficient information for the local planning authority to be able to identify the likely impacts on water quality. Where it is likely a proposal would have a significant adverse impact on water quality then a more detailed assessment will be required. The assessment should

form part of the ES…'.

We broadly agree with the updated reports findings/conclusions on the altered bank protection and support the design which substantially reduces the level of hard engineering to that necessary to protect and stabilise the immediate river bank.

The geomorphological modelling adequately assesses the likely changes/risks as and appears in line with natural geomorphic activity. The conclusion in WFD terms as presented in the report for this particular element only appears compliant.

However, the groundwater monitoring and conclusions from the associated reports (as listed in the WFD assessment), discussed elsewhere in our technical comments, will inform the report/findings on the WFD Groundwater Bodies. At this stage we are unable to confirm compliance with WFD based on the information presented.

The EA has a duty under the WFD to designate Drinking Water Protected Areas (DWPAs) including all water bodies (both surface water and groundwater) from which water is abstracted or intended to be abstracted in the future, for human consumption (in excess of 10 m3 /day as an average or which serve more than 50 persons).

WFD can require measures are implemented to protect supply and prevent deterioration in raw water quality due to pollution of DWPAs caused by human activities.

Drinking Water Protected Areas are identified as 'at risk' in River Basin Management Plans.

The WFD requires measures to meet quality standards and prevent deterioration of raw water quality sources within DWPAs. There are also related requirements in the Drinking Water Directive. WFD aims to protect and prevent deterioration of the status or potential of surface waters and groundwater, and to achieve good status.

The WFD assessment needs to demonstrate with a high level of confidence that your activity supports these objectives. As discussed elsewhere in this response, factors that affect uncertainty are the scale, complexity and risk of the proposed activity as well as the sensitivity of the local WFD receptor (DWPA).

Bank stability

We don't have any specific comments to make on wider land stability issues but recommend you are satisfied with the related level of analysis, including the geology and geomorphological evolution, ensuring that the structures/infrastructure built on and around Shelton Rough need to achieve a suitable level of stability and resilience for the design life of the project.

Biodiversity

Protected Species and Updates to Mitigation

We note the detail in the update to chapter 3, including the ecological surveys for signs of water voles and otters which have been conducted on the watercourses, Oxon Pool and Willow Pool. We would also recommend monitoring of the potential holts/couches/laying-up sites especially within

the month of the proposed start of the works, to determine use and to determine/implement potential species-specific mitigation. If mitigation is required, Natural England will need to be consulted. Appendices 1.J and 3.J. outline recommendations and potential mitigation measures with regards to otters, which should be delivered.

Further mitigation (outlined in Chapter 3) has been proposed following consultation responses to previous documents. We acknowledge the installation of measures to lower the risk of road collision, including the fitting of two mammal ledges on the Oxon Culvert, the extension of badger and otter fencing, the inclusion of mammal underpasses and the installation of amphibian exclusion fencing. These measures would help to lessen the impact of the new road on otters, badgers, great-crested newts and other non-protected species.

Local Wildlife Sites (LWS)/Trees and aquatics

We note some enhancements have been suggested in Appendix 3.E. In particular, relevant to our remit, it good to see that the planting of aquatic emergent, submerged and floating vegetation has been proposed at Oxon Pool to improve the LWS and the aquatic habitat. We note that the removal of several trees is planned. Your Ecologist and/or Natural England would comment further on this and the replacement/species mix requirements. We agree with the proposal to remove invasive and non-native species (such a Himalayan balsam).

Biodiversity Net Gain (BNG)/ Enhancement

Our prior responses on BNG and enhancements still stand. In in our previous response, we advised that it be recalculated using Defra metric v3. It is disappointing to not receive a BNG assessment, using the appropriate metric, as part of this document review. Similarly, it is also disappointing to not see a proposed mitigation plan for the loss of wet woodland priority habitat, or a plan for enhancements.

The Government's 25 Year Environment Plan, and NPPF requires developers to achieve net environmental gain. The Environment Bill is due to legislate for the provision of a mandatory minimum 10% 'Biodiversity' Net gain improvement from development. This is in line with NPPF Policy 118 requirements to achieve "net environmental gain" from development, NPPF Policy 170 "to protect and enhance valued landscapes, sites of biodiversity and geological value and establish coherent ecological networks", and Policy 175 (d) – "development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity", to ensure sustainable development.

A detailed explanation of the methodology used, and the results have not been provided. We would have welcomed a more in-depth review of this, as well as one plan and list of all of the proposed provision of environmental enhancements. The information presented is not too clear.

Section 8.13 – Enhancement Measures, of the ES concludes that overall, the proposed scheme will not deliver BNG. If BNG cannot be achieved within the footprint of the development, then off site provision could be used to deliver it. We have previously sought further detail and a summary of

enhancement should be presented as part of the EIA. We would refer you to your Ecologist and Natural England who would also make comments on this aspect.

Flood Risk

The River Severn and Alkmund Park stream modeling assessment is appropriate. Two Annexes within the Flood Risk Assessment (FRA) have been updated to incorporate our previous comments on hydrology for the two watercourses. The FRA is acceptable subject to conditions to secure some construction/temporary works, post/operational impact e.g. for flood storage provision and mechanisms for fish passage back to the river channel. These comments are made with best intentions to ensure infrastructure proposals are delivered in a sustainable manner, informed by a robust EIA.

Our comments are made with that environmental protection in mind. Should your Council be minded to grant permission we would consider potential conditions proposed by yourselves. However, that would not infer support for such an approach.

6th July 2023

• Letter dated 21 June 2023 'WSP response to EA comments of 3 May 2023'.

This information follows on from an earlier discussion with you as the Local Planning Authority (LPA) on 26 May 2023.

Also, at our further joint meeting of 13 June 2023 with Officers of the Council – as both Applicant and LPA, your consultant WSP and Severn Trent Water, we understand that you are minded to take the application, to planning committee on 18 July.

At our meeting we discussed the Environmental Impact Assessment (EIA) and separately your duty under regulation 17 of the Water Framework Directive (WFD), of which we are the competent authority on under the Water Environment Regulations. Should your Council be minded to approve the application we advise that you be satisfied on the adequacy of the environmental information provided.

With regard to the 'source protection zone' concerns, we would advise that you should proceed in full awareness of the risk and consequences of any potential future impacts of the development on the Shelton Supply zone.

From the letter dated 21 June 2023, it is noted that no further work is intended to be undertaken prior to going to committee in July to address the detailed points raised in our letter of 3 May 2023. If you as Shropshire Council are content with the standard of the EIA submission/assessment and are minded to manage risk by conditions to be submitted later that is a matter for you to decide. We are not sufficiently reassured at this stage based on matters that need more detail and advise that the EIA needs to be robust, and risks/mitigation fully explored. We would not advise you to grant planning permission, subject to planning conditions, at this time.

The below provides some further comment on the letter of 21 June 2023 and should be read in conjunction with our letter of 3 May 2023.

I trust that this clarifies our position.

GENERAL EIA COMMENTS

We note the Council's proposal to defer development of the Turbidity Protocol and emergency plan to suitably worded planning condition. No further information is provided – please see our previous letter.

As we have confirmed, some elements including turbidity mitigation is not something that has been fully assessed/properly considered. There is a level of uncertainty around the potential impacts or efficacy of current proposed mitigation.

We disagree with the EIA conclusion that overall, risks attributed to piling works for Shelton Rough River Severn Viaduct are considered very low to negligible at Pier 1. This 'very low to negligible' risk designation is inconsistent with the recognised need to develop the additional monitoring boreholes within source protection zone 1 and 2. Furthermore, WSP acknowledge the sensitivity of the public water supply and stringent regulatory turbidity limits and state that further reassurance is required with the need to deploy, develop and adopt the turbidity sondes and protocols.

There is currently a lack of sufficient detailed commitment on specific trigger levels and agreed mitigation actions etc should construction activities have a detrimental impact on the Shelton public water supply sources.

It is also plausible that at the point any potential impacts are observed there may already be short term, long term (some years of impact/loss), or potentially irreversible impact, particularly in relation to any abstraction/intake feature. Such mitigation options, including corrective action, have not been fully explored within the EIA, but for impacts to public water supplies it could include provision of alternative supplies potentially including alternative mains water supply provision, at someone's cost.

See previous comments including uncertainties from modification of piling methodology and materials following the proposed trial test piles.

We are advising as part of the EIA for the applicant to assess and consider necessary measures and as developer to make a commitment to provide financial reparation options for any foreseen and unforeseen impact arising from the construction and future operation of the proposed application.

We also raised concerns that the Multi-Agency Recovery Plan may be too generic. The EIA should inform a bespoke emergency response plan which identifies all scenarios.

<u>GROUNDWATER AND WATER SUPPLY</u> –

The applicant considers the 'risks to strategic water supplies are extensively covered within the Water Environment Risk Assessment (WERA), Piling Works Risk Assessment (PWRA) and Detailed Quantitative Risk Assessment (DQRA)'.

In terms of our position on the EIA, 'Extensively covered' doesn't necessarily equate to having sufficiently addressed the concerns raised in our response dated 3 May 2023, including related 'assessment' of such

matters.

- KEY POINT 1 – CONCEPTUAL HYDROGEOLOGICAL UNDERSTANDING (River – groundwater interaction aspects).

Data collation from the 'new' Shelton River Intake monitoring site commenced in March 2022. This should have been included in the 2023 revised submission, not after. We disagree with WSP's view that the groundwater – surface water is essentially/persistently decoupled. Over the 2022/23 autumn to spring period the river stage was elevated above the groundwater head for approximately 2 to 3 months during this observed period. The BH4 response mirrors the river stage providing evidence that river water is surcharging into river side sediments under in high river stage events. This temporary flux exchange in the sediment does support a localised temporary pathway that is likely to only influence sediments immediately around the river under elevated river stage conditions.

- KEY POINT 2 – PILING WORKS RISK ASSESSMENT

We understand that Severn Trent Water Limited (STWL) have made some suggestions on conditions in relation to controls around the piling risk assessment. Our position remains unaltered in that the development of the Turbidity Protocol and monitoring is key to monitoring and controlling the short risk posed by the proposed construction activity within the Shelton Water Supply zone.

- Key Point 3 – Detailed Quantitative Risk Assessment (DQRA)

We understand that further modelling has and is being undertaken at the request of STWL, outside of the planning process.

The DQRA ultimately guides the mitigation measures required and indeed provides magnitude of risk/context in terms of EIA/WFD and the acceptability of a proposal. We are concerned that the outcome of this work will not be available or considered as part of the planning committee determination.

Whilst the hydrocarbon spill on the roundabout is considered the most likely incident occurrence and WSP modelling has indicated that this will be mitigated due to the presence of underlying cohesive deposits. STWL have challenged the reported nature of the deposits/pathways in this area due to lack of site investigation, hence the request for further modelling. There is also no mention of the outcome of the chlorinated solvent scenarios, which have the potential for more significant and persistent impacts on receptors due to their chemical properties. We have previously sought details on this and any remediation options and feasibility/repercussions/costs.

- KEY POINT 4 – DISPERSIVITY

No further assessment information is provided, to inform decision making. Notwithstanding that, WSPs response to provide more details and assurances on the robustness of the design proposed for the viaduct barrier system over the River Severn was limited to 'A viaduct parapet consisting of containment level H2 steel structure, for vehicle restraints, and solid in-fill panels, for runoff and spill containment'. This is quite a basic commentary and provided no reassurance on the robustness of the consideration for this critical design feature, linked to the potential pollution

issue and remedial options. We advised you seek assurance that sufficient containment of vehicles on the road deck has been incorporated in the design to control the risk of vehicles (including HGVs) and pollutants from entering the river immediately downstream of the water supply river intake, based on appropriate assessment.

- KEY POINT 5 – ROAD DRAINAGE

The applicant acknowledges that 'Any proposals to incorporate non-sealed drainage features within SPZ1/2 have been presented in error and conflict with the intended Drainage Strategy for the Proposed Scheme'. To rectify this error and for the avoidance of doubt we seek assurance that revised engineering drawings be produced and re-submitted for the relevant road linkages to demonstrate compliance with providing adequate sealed drainage with SPZ1 and 2 prior to determination. No assurances are provided on contingencies and funding mechanisms to adequately maintain the drainage network.

Water Framework Directive (WFD) assessment

With regard to WFD, and potential deterioration from the development impacts, we have consistently advised on the need for a WFD assessment.

WFD can require measures to be implemented to protect supply and prevent deterioration in raw water quality due to pollution of Drinking Water Protected Areas (DWPA) as caused by human activities. DWPA's are identified as 'at risk' in River Basin Management Plans. There are also related requirements in the Drinking Water Directive. WFD aims to protect and prevent deterioration of the status or potential of surface waters and groundwater, and to achieve good status. The WFD assessment needs to demonstrate with a high level of confidence that your activity supports these objectives.

Environmental objectives include – to prevent deterioration, protect and enhance and prevent/reduce pollution to groundwater/controlled waters.

Under WFD any activity considered likely to compromise environmental objectives must undergo a thorough assessment before they can be permitted under regulation 19 and must also ensure other related objectives are not compromised as a result of the proposed (human) activities. All the requirements of the WFD Regulations must apply. An assessment must provide evidence to satisfy the following conditions:

• all practicable steps are taken to mitigate (including effective implementation) the adverse impact on the status of the water body

• the benefits to human health or human safety or sustainable development outweigh the benefits of achieving the environmental objectives or the activity is of overriding public interest

• there are no other means of providing the services offered by the activity that are technically feasible or of a proportionate cost and provides a significantly better environmental option.

We have previously said the WFD assessment isn't compliant (informed by other related assessments including those referred to above) focusing on groundwater and potential deterioration.

The proposal includes a human interaction (viaduct over within the 'drinking

water protected area'/SPZ within the WFD catchment). At the June meeting, the applicant/WSP disagreed on the need to further consider an impact from their piling works or a pollution incident from the road, in this regard.

Other matters:

We have previously confirmed that we are satisfied with flood risk impacts. The Flood Risk Assessment is acceptable subject to conditions to secure some construction/temporary works, post/operational impact e.g., for flood storage provision and mechanisms for fish passage back to the river channel.

Similarly, regards geomorphological considerations in terms of the River Severn bank mitigation options. We are generally satisfied with the design and the scope of the geomorphological assessment and the methodology/evaluation procedure, the consequent findings and conclusions. This has links to Biodiversity Net Gain (see separate comments in our previous letter on the applicant's inability to further deliver BNG) and further water related environmental improvements. We previously advised that additional bankside habitat enhancement as well as the mitigated length should be provided for in the plans.

These comments are made with best intentions to ensure infrastructure proposals are delivered in a sustainable manner, informed by a robust EIA. Our comments are made with that environmental protection in mind. As confirmed previously, should your Council be minded to grant permission we would consider potential conditions proposed by yourselves.

1st September 2023

We have previously commented that should the LPA be minded to approve the application we advise that it is satisfied on the adequacy of the environmental information provided.

With regard to the 'source protection zone' concerns, we advised that should you proceed, this would be in full awareness of the risk and consequences of any potential impact(s) of the development on the Shelton water supply sources.

From the latest letter of 31st July 2023, it is noted that progress has been made in the exchange of technical rebuttals. We acknowledge that WSP have taken a number of our comments on board, and we are thereby building common ground across a number of the SEI documents.

However, it is our understanding that no further comprehensive work is intended to be undertaken on some key areas, to address the detailed points raised in our letter of 3rd May 2023 and 6th July 2023, prior to going to planning committee.

We acknowledge that the applicant is intending to seek planning conditions to cover a number of outstanding issues. Regarding some outstanding matters and options, subject to the level of information you think is acceptable, the imposition of conditions or section 106 might be appropriate. In the absence of any new or revised substantial information provided by the applicant, if you (as Local Planning Authority) are content with the standard of the EIA submission/assessment, the level of detail submitted, reassurance and ability to manage and mitigate risk through the

imposition of planning conditions to be submitted later, then that is a matter for you to decide.

We have previously commented on alternative route provision for the southern end of the route and advocated an ‘avoidance’ approach. One that selects the most sustainable option, with least environmental risk. We advised that progression of the route in the Shelton area would be complex, as it is highly sensitive and there are risks that need to be fully understood/accepted if this were to be pursued.

We would reiterate our previous position, in that, we are not sufficiently reassured at this stage based on matters that need more detail and advise that the EIA needs to be robust, and risks/mitigation fully explored, prior to determination.

However, as confirmed previously, should your Council be minded to grant permission we would consider potential conditions and other mechanisms proposed by yourselves.

General Comments

Outline Construction Environmental Management Plan (CEMP) – We note and welcome applicants’ acknowledgment that our comments on the outline Construction Environmental Management Plan will be adopted.

We understand from applicants’ response that a revised document may have already been generated. However, we have not had sight of this at this stage. Further refinement may be necessary to inform a final detailed CEMP. This may form part of a planning condition.

Piling Works Risk Assessment – We reiterate our position that we see the development of a written Turbidity Protocol and monitoring plan as key to informing any piling methodology, monitoring protocols, trigger criteria, and contingency action plans for all reasonably foreseeable scenarios.

This is required of the applicant to demonstrate accountability, control and response to any risk(s) posed and realised by the proposed construction activity to the water supply sources at Shelton.

Any decision to defer to a post determination Planning Condition should ensure the Protocol is developed in consultation with Severn Trent Water and the Environment Agency. Regarding the ‘source protection zone’ concerns, we would advise that should you proceed then you are in full awareness of the risk and consequences of any potential impacts of the development on the Shelton water supply sources.

Our last response pointed you towards our previous comments including uncertainties from modification of piling methodology, design and materials following the proposed trial test piles.

We suggested that it is also plausible that at the point any potential impacts are observed, arising from any foreseen or unforeseen impacts from the proposed development on the Shelton water supply sources, mitigation options should consider appropriate financial reparations to fund/implement any necessary corrective actions.

It is unclear what Mitigation options may be necessary and how this would be secured. We recommend that you seek the comments of Severn Trent Water on this element to ensure they are satisfied with options, potential

risk and effective control measures.

If the LPA are minded to approve the application, the general Piling Works Risk Assessment (notwithstanding some current uncertainty, and in the absence of test piles) must be suitably controlled, including but not limited to, an appropriately worded Turbidity Protocol and monitoring plan.

Supplementary Environmental Information Chapter 6: Road Drainage and Water Environment – We note the proposal to progress matters as a "Planning Condition which will cover both (i) maintenance of road drainage system and (ii) the setting up of appropriate and specific emergency response mechanisms for incidents within the SPZ (Source Protection Zone) under the umbrella of the MARP (Multi Agency Recovery Plan)". Further to our previous comments, we understand that WSP have held preliminary discussions with Shropshire Council with a view to develop a 'bespoke' emergency response within the framework of the Multi Agency Recovery Plan.

Given the sensitivity and potential risk to receptors defined by the source protection zones (SPZ) and Detailed Quantitative Risk Assessment modelling at Shelton, we would seek a commitment to an immediate and timely remediation clean up strategy for any pollutant spill within the SPZ and specifically highly sensitive SPZ 1 and 2 as part of the emergency response. Taking into consideration the proximity to the sensitive receptors, an emergency contingency fund must be made available to expedite the rapid deployment of remedial measures and/or corrective actions.

We would also seek reassurances that appropriate mechanisms are put in place to fund the maintenance plan of the road carriageway drainage attenuation system, for the life span of the roads use.

Proposed Road Drainage Strategy–- Sheets 1 to 5 (January 23), Drainage Layout Sheets 1 to 30 & Drainage Strategy (Report no. 70056211-wsp-hdg-as-rp-cd-00001 p02) dated July 2021 – The applicant has acknowledged the error of having included non-sealed road drainage systems in SPZ 1 and 2, contrary with their intended Drainage Strategy for the Proposed Scheme, and have provided assurances that these errors will be rectified and updated. We have not seen updated plans since drawing this to your attention in May 2023. We recommend that these are updated accordingly prior to any planning committee as part of any approved plans/any scheme for final drainage approvals.

Viaduct Barrier System – No further comment has been provided here regarding our request for more details and assurances on the mitigation and robustness of the design proposed for the viaduct barrier system over the River Severn. In applicant response dated 21 June 2023 this was limited to 'A viaduct parapet consisting of containment level H2 steel structure, for vehicle restraints, and solid in-fill panels, for runoff and spill containment'.

We reiterate our view that this is quite a basic commentary and provides no further reassurance on the robustness of the consideration for this critical design feature, linked to the potential pollution issue, mitigation, and remedial options. We advised you seek assurance that sufficient containment of vehicles on the road deck has been incorporated in the design to provide mitigation and deter the risk of vehicles (including HGVs)

and pollutants from entering the river immediately downstream of the water supply river intake.

5.3.16 **Severn Trent Water – Conditional Acceptance**

22nd April 2021

STW have now completed a review of this application and have some specific concerns as to how the proposed development could potentially impact our public water supply (PWS) assets at Shelton. Whilst we do not have any objection to the principle of the development, we would like you to give appropriate consideration to the concerns we have summarised.

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As detailed in the application you will be aware that the proposed road will pass across the source protection zone of our Shelton boreholes and will run close to the South of our river intake facility. The construction of a road through this area therefore needs to carefully consider the operation of these assets to ensure that the significant construction activities of the road, and potential pollution events during its operation, do not affect our operational activities in the short, medium and long term. We will not accept any unacceptable risk that threatens our ability to provide safe drinking water to our customers.

3rd May 2023

We have now completed our review of the updated application, which continues to propose a new road through a groundwater Source Protection Zone (SPZ) close to several important public water supply assets. For us to be comfortable that the road can be built and operated with an acceptable level of risk to these assets, we need to see:

1. A definitive turbidity protocol, and

2. A Road Drainage Preventative Maintenance and Emergency Plan.

If these two requirements are addressed satisfactorily, we would be able to remove our concerns from the application. If this is not possible, then further work would be required to assess several outstanding concerns we have around the conceptual model and the Detailed Quantitative Risk Assessment (DQRA) for the scheme. The key requirements above should be addressed in advance of determination and not via the use of pre-commencement planning conditions.

At Shelton Water Treatment Works (WTW), the boreholes and River Severn together provide the principal public water supply to Shrewsbury and a large part of Shropshire. Therefore, we must consider the NWRR development carefully to ensure these supplies are protected. Any construction or operational activity associated with the proposed development should not cause any increase in risk to the operation of the WTW assets in the short, medium and long term.

If there was a need for us to shutdown Shelton WTW due to a water quality issue caused by the construction or operation of the new road and roundabout, that could not be mitigated by the existing water treatment processes, recovery of the supply so that we can continue to provide

wholesome water to our customers could be very difficult.

We expect the design and construction activities associated with the NWRR scheme to consider and provide the necessary mitigation for all of the potential risks and impacts. Where residual risks remain, the design will have to quantify the severity and likelihood of these as well as the degree of the associated uncertainty. We will not accept any residual risk that is not accompanied by sufficient, supporting weight of evidence.

We explain below why we need to see a defined turbidity protocol and commitment to maintenance of the road drainage infrastructure.

Piling and the need for a Turbidity Protocol

There is significant reliance put upon construction, environmental and pollution incident management plans to mitigate the risk of turbidity affecting the groundwater abstraction at Shelton WTW. It is acknowledged in the Piling Works Risk Assessment (SEI App 5.D) that a turbidity protocol is required including appropriate trigger levels and responses that we can endorse. We accept that at the time of submission, trigger levels had not been defined due to the ongoing collection of baseline data. However, we have not currently been presented with a detailed protocol that we can rely on during the construction of the road.

The piling work involved poses notable risks to our groundwater abstractions, and we must have absolute clarity now on how the applicant will manage these risks during construction, as we need to be able to continue to supply our customers during this period. As we have seen through the recent Phase 4 Ground Investigation, we have confidence that a suitable protocol can be agreed, but this should be provided up front and a planning condition prepared that would require compliance with it. Whilst we accept that a planning condition could request a turbidity protocol being put in place before construction commences, we believe this to be a notable issue that should be addressed in advance of determination.

Therefore, the applicant should be asked to provide a suitable protocol in consultation with us and the Environment Agency (EA) before this application is taken to determination.

Road Drainage – Need for a Preventative Maintenance and Emergency Plan

When we commented in April 2021, we requested information about the plans for the long-term management of the proposed drainage basins, as any failure of the proposed drainage system following a spillage event could lead to contamination of the aquifer and have long-term consequences. We remain concerned about the arrangements for maintenance of the drainage infrastructure proposed for the road in perpetuity.

Whilst we of course welcome the design of the attenuation basins to capture pollutants from any spill on the road and roundabout, we have no

certainty at present that these will be regularly inspected, tested, and maintained. We acknowledge that the highway authority will be duty bound to maintain the road as part of its network, but with the proposed route and Holyhead roundabout to be constructed within SPZ1 of our groundwater sources, we need to demand more certainty than merely an expectation they will be managed by the responsible authority. We need to be confident that not only is the scheme designed to mitigate any risk to our sources and assets, but that there is a specific plan and/or formal commitment including an appropriate budget for the relevant infrastructure to follow an agreed maintenance and remedial plan, e.g. periodical inspections, condition assessments and reviews with ourselves and the EA. Furthermore, an emergency plan is also required so we can understand how a suitable response will be made to any pollutant spill.

We note that serious spillage rates are three times higher for roundabouts than other junctions (Design Manual for Roads and Bridges, 2019) and would also suggest that further consideration is given to the type of junction and to what can be done on the approaches to the junction in SPZ1. We know that in similarly sensitive situations elsewhere (e.g. Germany) appropriate signage is erected in a bid to encourage motorists to be aware of the need for particular care as they drive through the area, and who to immediately call (in addition to the emergency services) should there be any sort of pollutant spill. We also ask whether the highway authority could be requested to carefully consider the speed limits on the approaches to this area, in a bid to do all that is possible to minimise the chance of accidents.

Therefore, before this application goes to determination, we need to have confidence that the drainage infrastructure will be appropriately maintained and managed to ensure any spillages are contained. In addition, we must be provided with assurance on what will happen in the event of an emergency. Until this time we maintain serious concerns over the presented risks posed by this drainage system in the medium to long term.

In the case that we do not have assurance that any spillage is completely contained by a regularly inspected and maintained drainage system, we have the following secondary concerns relating to the conceptual model and DQRA.

a) Lack of Ground Investigation at location of Holyhead Roundabout

In the absence of assurance on a management regime for the proposed drainage of Holyhead roundabout, we also refer to the lack of ground investigation in this area.

There is no site-specific investigation data for the proposed roundabout area, and we understand that access has not been possible for ground investigations due to the presence of badger sets. However, due to the variable nature of the geological setting, the lack of data is considered a vulnerability to the risk assessment as it could lead to inaccurate assumptions on geological properties that could affect the results of contaminant transport models.

During our own field visits we have observed coarse gravel strata and near vertical uncemented joint sets in a local outcrop, and we are obliged to consider the possibility that in places there may be higher conductivity in the unsaturated zone than is typical for the superficial as it is defined. The DQRA acknowledges the substantial heterogeneity in the area and duly applies a range of unsaturated zone conductivity. However, the range is based on glacial till parameters albeit with rich sand and silt content and may be too narrow to include worst-case.

There is also a partial reliance on the East Shropshire Groundwater (ESGW) model to validate the parameters used in the DQRA model. As referred to in section 4.2.9 of Annex D, App. 6.3, the ESGW is a regional model and does not necessarily give the resolution required for a local setting. In addition, the defined groundwater gradient in the DQRA uses flows that are not sufficient to sustain peak pumped volumes at the Shelton boreholes. Therefore, the gradient could be underestimated for the modelled contaminant pathway between Holyhead roundabout and the abstraction. Considering these factors, the scenario of a spill at the roundabout could present a higher risk than estimated in the DQRA.

We request that contaminant transport models are repeated using worst case model parameters in terms of groundwater gradient at peak flows and in the absence of ground investigation data, use a worst-case conductivity value for drift deposits. This is particularly pertinent given 1) the shallower depth to the bedrock at BH1, 2) the presence of a critical fracture zone in the upper section of the bedrock and 3) the location of the proposed roundabout between both of our abstraction boreholes.

b) Relationship between Groundwater and Surface Water

The hydraulic gradient between groundwater and the River Severn has been assessed by the applicant to be upward concluding that the river is gaining in the Shelton reach. However, in the documents submitted, groundwater levels in boreholes have been assessed against the river level gauge at Welsh Bridge, which is too distant to give an appropriate comparison. In other documents submitted by the applicant, a surveyed river level approximately 1.5m higher suggests that the gradient is in reverse and that the river could be losing to ground in that reach. If true, this could make a difference in the level of risk to our boreholes as it affects the proportion of river water contributing that is assumed in the risk assessment to be no more than 2%.

Since the most recent documents were submitted, the applicant has informed us that they agree there is low confidence in the surveyed river level provided in some of their documents. The river level has since been reassessed (outside of the official submissions but shared with Severn Trent) using a second stage gauge installed locally. This new gauge shows close alignment with the level defined at Welsh Bridge. This additional validation allows re-assessment and demonstrates a seasonal flux in the hydraulic gradient, where during extended dry weather periods there is an upward gradient to flat gradient but in wetter periods there is a downward

gradient. However, the dataset collected to date does not cover a long enough period to determine the typical distribution between these two hydraulic states. The new assessment appears to show a degree of connectivity between groundwater and surface water.

We recognise that with seasonal flux and the contribution from the river to the borehole abstraction potentially increasing during wetter periods, the scenario of a contaminant spill in the river mobilising to the boreholes would be subject to greater dilution and dispersion effects. However, this scenario has not been modelled with the broad range of parameters that the data shows.

We would recommend that the period of data collection is extended and assessed until there is comprehensive evidence to support the relationship between groundwater and surface water. In addition, we would recommend that a localised groundwater abstraction model (IGARTH or similar) is created to provide greater resolution and assurance on the contribution proportions to the abstraction from river and groundwater. Following longer term assessment, a contamination pathway can then be modelled based on a worst-case scenario seen in the GW-SW interaction data.

c) Assessment of Potential Impacts on Secondary Abstraction Borehole

The applicant has understandably focussed attention on the potential impacts on our main operational borehole. However, we also remain concerned about potential impacts on the second borehole which is also an essential supply asset.

None of the risk assessments to date have considered the secondary borehole as a receptor. Connectivity between that borehole (to the West of the river) and observation boreholes on the Eastern side of the river has been observed. However, the scenario of a spill on either side of the river with the second borehole as a receptor has not been modelled. Furthermore, there is no discussion in the risk assessment of the pumping effects observed to the East of the river in the signal test results.

Summary

Overall, we recognise and appreciate the amount of work that the applicant has done to assess various issues associated with the NWRR scheme. Nevertheless, there are two significant concerns that should be addressed before the application is determined by the Council. In summary, the applicant should be asked to:

• Provide a detailed Turbidity Protocol to include well defined trigger levels and appropriate responses to be endorsed by both Severn Trent and the EA; and

• Provide a preventative maintenance and emergency plan for the relevant road drainage in the medium to long-term. If our concerns on drainage management are not resolved, to address our secondary concerns and to increase our confidence in worst-case scenario modelling we would recommend that that the applicant:

• Repeat contaminant transport model scenarios using an extended range

of conductivity in the drift and a groundwater gradient consistent with Shelton abstraction rates in peak years,
• Undertake local modelling (IGARTH or similar) with the resolution to assess the proportional flow contribution to the groundwater abstraction at a finer scale, also extend the period of data collection on groundwater and surface water levels to develop the conceptual model and provide a reassessment of the groundwater surface water interaction based on localised modelling and extended datasets; and
• Provide assessment of potential impacts to the secondary abstraction borehole including a scenario of accidental spill on the eastern side of the river. We remain keen to work with you and the applicant to address these issues.

We recognise how long this application has been in consideration and appreciate that there will be a requirement to determine as quickly as possible. However, we must fully understand potential impacts to our supply assets and customers and be confident that appropriate plans and mitigation are in place to deal with identified risks.

6th October 2023
Since we last commented on the application (3rd May 2023), we have received a response to our comments from the applicant (7th June 2023) and had further discussions with them, the LPA and the Environment Agency (EA).

I note that the EA has recently written to you (1st Sept 2023) explaining their views on current progress where they refer to issues particularly relevant to our interests. This letter sets out our response to the applicant's letter noted above, details the conditions needed to give us the safeguards we require and reiterates some of the comments made by the EA in its recent response.

As you know, we need to be confident that the construction and operation of the road will not result in unacceptable risk levels at water supply assets that our customers rely on. We must ensure any contaminants that could occur from the construction or operation of the road are prevented from entering the environment and particularly the groundwater. Without such safeguards, we would have to object to the application.

In our previous response to the application, we explained that although we have several concerns about the assessments made by the applicant, we could agree to disagree on some outstanding technical items if certain safeguards were secured prior to approval. Therefore, we requested the provision of a turbidity protocol and a road drainage management plan to be prepared ahead of the determination of the application. These would, as far as is practicable, reduce the risk of contaminants to enter groundwater and protect supplies for our customers.

In the response from the applicant, confusion was expressed about our desire to see the turbidity protocol and road drainage plan agreed in advance of the application being determined. Given the sensitivity of our assets you will appreciate that we have sought to ensure as much work is

done as possible in advance of a decision on the application being made. We think it is clear why we would want these matters to be addressed ahead of determination, so all stakeholders can clearly see how our concerns would be mitigated. We were also of the view that addressing our concerns in advance of planning committee would have been an appealing prospect to the applicant, to show thoroughness in approach and to avoid the need for onerous pre-commencement condition.

However, following further discussions with the applicant and yourself, we have sufficient comfort that planning conditions will provide the necessary safeguards. Indeed, reference is made in the applicant's letter that an appropriate condition will be discussed for provision of a turbidity protocol to provide the required safeguards. The response also states, with reference to the requirement for a road drainage maintenance plan, that:

"The Applicant and WSP can assure STWL we are fully committed to further developing the existing Multiagency Recovery Plan to the satisfaction of key Stakeholders. As previously mentioned, SC and the LPA seek to further discuss this matter imminently with both the EA and STWL to see if there is an acceptable way of progressing the determination via the implementation of appropriate Planning Conditions which will ultimately provide all the safeguards sought".

With further commitment given from yourself that the planning authority will act accordingly to ensure that the Council will approach any such conditions with the required rigour, we are prepared to accept planning conditions to provide the safeguards we need in advance of any decision being made. We are accepting this approach due to the status of the applicant as the incumbent highway authority, and therefore we expect that the process for dealing with the conditions is completed thoroughly and in consultation with STW and the EA.

The draft conditions have been shared with you and the applicant and accepted.

Notwithstanding the approach being taken here to ensure the groundwater system is protected via planning condition requirements, we feel we must also respond to the comments made by applicant in response to the concerns we expressed in our letter of 6th June 2023.

<u>Lack of Ground Investigation at location of Holyhead Roundabout</u>
We accept that attempts have been made to conduct site-specific investigations around the proposed roundabout location. We do believe alternative investigative methods could be employed, especially the use of geophysical surveys to review subsurface heterogeneities. We reiterate that the proposed MW5 posed an acute risk to our operational boreholes whilst OBH1 provided an appropriate ancillary. We also accept that sensitive sites prevented other deep boreholes being drilled.

The applicant's conceptualisation of the subsurface at the Holyhead roundabout concludes that any granular lenses in the sub-surface will be localised and disconnected. This is demonstrated through the limited

borehole log data available, especially BH1 and OBH1, but does not necessarily allow representation of a larger area where the superficial deposits are known to be highly heterogeneous in nature. Irrespective of this incongruity, we largely agree that the additional highly conservative DQRA assessments show most potential contaminants do not show breakthroughs. However, vinyl chloride in incident 2 (PPL4) vastly exceeds the prescribed concentration value at an unknown time between 50-150 years post spill (e.g. VC at 3.27 mg/l at 150 year projection, PCV is 0.0005 mg/l).

Relationship between surface and groundwater We note that the applicants continue to provide contextual support for their conceptualisation in our weekly calls. However, these are informal discussions aiding bi-lateral discussions on the complex issues aimed to be addressed in the Supplementary Environmental Information report. Our official commentary relates to formal submissions through the planning process only.

We disagree the hydrographic evidence shows hydraulic decoupling of river and groundwater, for substantial times during the year the river stage is above groundwater level.

We accept that the applicant has corrected the river stage monitoring location present in the original submission, and that is acknowledged in our response. This further supports our conceptualisation that there is hydraulic connection between the two systems.

As with the discussion around conceptualisation disagreements at Holyhead roundabout, we can ‘agree to disagree’ on these points if we consider there to be a robust drainage and maintenance plan in place. This is based on the Source-Pathway-Receptor model of risk analysis, whereby removing the source component negates any concern to the receptor via the uncertain pathway.

Assessment of potential impacts on our second abstraction borehole (BH2)

The evidence presented within the SEI does not suggest no connection between the construction area and BH2, in-fact many of the hydrographs suggest there may be a greater connection to specific locales to BH2 over BH1. It is accepted that the lateral distances are greater in most instances but the clear relationships to certain investigation boreholes hint at the possibility of faster pathways here. There has been no contaminant modelling conducted regarding this receptor.

In addition to the comments above, we would also like to take the opportunity to highlight and support several points made by the EA in their response dated 1st September 2023

• Need for rapid clean up – whilst we will be expecting to see a commitment to immediate and effective clean up (following any kind of contaminant spill) in compliance with the agreed condition above, we think it is worth highlighting the point made by the EA on this matter. Whilst the drainage system is to be designed to contain any spill, it must be the case that such contaminants are removed as quickly as possible to remove the potential

for these to permeate/find any weakness in the defence. We have discussed the likely development of a bespoke Multi-Agency Recovery Plan, and this will be expected as part of the package when the above condition is discharged.
• Confirm sealed road drainage – the EA makes a request for drawings to be amended to show sealed drainage systems in SPZ1 and SPZ2 for the STW Shelton boreholes. As this requirement is at the very heart of the agreed approach for us to rely on a condition requiring a long-term road drainage maintenance plan, it is of the upmost importance that this comment is addressed and that the applicant confirms this approach/sealed drainage design in advance of determination.
• Design of Viaduct Barrier System – We agree that further assurance is sought on the capability of the barriers on the road bridge to contain vehicles in an accident situation i.e. is sufficient resilience going to be built in to prevent vehicles from entering the river in an accident scenario. Suitable design here is of course one of the ways to mitigate one of the risks of pollution/contamination of water supply presented by the project.
• Preventative Control Measures – in previous discussions we have requested that consideration is given to control measures that could be put in place to further limit the potential for accidents and spills within the source protection zones. In other countries (e.g. Germany) there are examples where bespoke speed limits and signage are in place to warn drivers of the sensitivity of the environment they are passing through. Warning signage that informs drivers they are entering a protected zone, with associated speed limits, would be an effective and simple way to further reduce risk. We urge the Council to consider these measures further in discussion with ourselves and the EA.

As the applicant has sought to build a road through such a sensitive landscape, it is essential that all precautions are taken to reduce the risk of impact to our supply of water to customers. We are satisfied that planning conditions as proposed can ensure the necessary protections are put in place, and we will be reliant on the Council dealing with these matters appropriately as both applicant/developer and planning authority.

We commit to continue to work closely with the applicant and yourself to define the necessary plans required to appropriately deal with these important conditions.

5.3.17 **Shropshire Council Drainage – No Objections in principle**

30th April 2021

Provided conditions and the following comments;

1. The comprehensive use of filter drains is commended which will in addition to providing additional storage, will provide some treatment to improve quality water. Where filter drains are being considered, the water quality will be further increased if vegetated filter strips can be incorporated into the detail.

2. The use of pre-treatment sediment forebays ponds should be considered

to further remove silt from the system. Such ponds should be located to be easily accessible to ensure regular maintenance can be carried out.

3. Paragraph 4.2.4 of the FRA states that *catchments where the highway drainage joins an existing road drainage network, there is no restricted rate at the point of connection*. Shropshire Council's "Surface Water Management: Interim Guidance for Developers, paragraphs 7.10 to 7.12" requires that flows for events up to and including the 1% AEP plus CC should not contribute to surface water flooding of any area outside of the development site. Connections to the existing systems should have restricted discharge rates and be agreed with local Highway Managers, demonstrating there would be no adverse flooding effects downstream to point of outfall.

4. Also in paragraph 4.2.4 of the FRA, it is stated that the discharge rate for Attenuation Basin 3 has already been agreed with the LLFA through the David Wilson Home's Development (Planning Reference: 14/00246/OUT). This agreed discharge rate and volumes needs to be confirmed and provided in order to assess the combined flows associated with the housing development.

5. Catchment 4 of the realigned Clayton Way outfalls to an existing pond which appears to have no identified outlet. Confirmation is required of the ponds outfall and that there is sufficient capacity to accommodate the flows.

6. The existing Holyhead Road highway drainage network is believed to have capacity issues and therefore a through survey should be carried out. The proposed drained area requires attenuation. It is understood that a private pumped system has recently been in installed in existing Holyhead Road highway boundary.

7. As outlined in the Technical Note, catchment 11 is proposed to outfall to the existing Berwick Road highway drainage network. The existing network is part of a catchment which contributes to property flooding further downstream at Gravel Hill Lane and therefore in its current condition, it is not suitable as an outfall. Should this outfall be required, a full assessment of the network to the point of outfall will be required and an upgrade is considered necessary.

8. Surface water from the highway, footpaths and paved areas falling towards the carriageway, spacing calculations will be based on a storm intensity of 50mm/hr with flow width of 0.75m, and be in accordance with DMRB CD526 Spacing of Road Gullies. Gully spacing calculations must also be checked in vulnerable areas of the development for 1% AEP plus climate change 15 minute storm events. Storm water flows must be managed or attenuated on site. Vulnerable areas of the development are likely to be where a sag curve in the carriageway vertical alignment coincides with a cutting slope or where ground within the development slopes beyond the development boundary.

5.3.18 **National Highways– Conditional Acceptance**

Recommend that conditions should be attached to any planning permission that may be granted.

Based on our review of the Transport Technical Note (TNN) dated August 2021, we note that design changes are proposed. As the proposed changes are outside the National Highways boundary and are mainly limited to the area between Holyhead Road roundabout and east of the viaduct towards Berwick Road roundabout, we do not consider these to have any significant change in traffic impact on the SRN in the area. Additionally, a strategic model assessment has also been undertaken to understand the difference in traffic flows on the section of NWRR between Holyhead Road roundabout and Berwick Road roundabout. Based on the model outputs, removal of the climbing lane from the viaduct resulted in a reduction in traffic flow of less than 5 PCUs only in the forecast year of 2038. Therefore, we have no concerns to raise regarding traffic related matters. In view of the above, the previous conditional response issued by National Highways (attached) remains valid.

Based on our review, we note that the applicant has uploaded a Transport Technical Note (TTN00002), dated 5th December 2022 in response to comments provided by the Local Highway Authority in July 2021. We note that the Technical Note primarily addresses the comments related to the local roads and junctions. While we acknowledge that a trigger point assessment has now been undertaken at the A5 Woodcote Roundabout in support of the mitigation proposed at the B4386 arm, we do not consider this assessment to have any significant change in our earlier conclusions made with regard to the anticipated traffic impact on the SRN in the area. In view of the above, we have no traffic-related concerns to raise and National Highways' previously issued conditional response dated 22nd March 2021 remains valid.

5.3.19 **Shropshire Council Highways – Supportive in principle 6th July 2021**

Transport Assessment

Section 1 – The application has been submitted by Shropshire Council on behalf of the Highway Authority, on this basis it is considered that the principle of the development has been accepted and the following comments will relate only to technical details with regard to the submission.

Section 2 – no observations

Section 3. It is noted that the majority of base data was collected 2017 and further data was collected as appropriate in 2019, pre-covid which is acceptable. The submitted Traffic Forecast Report TR003B issued May

2020 outlines the growth factors added, which appears appropriate based on the information submitted.

NMU surveys were undertaken in October 2019, which is considered to be an acceptable neutral month. These have been compared to previous surveys undertaken in July 2017, which provides a robust assessment of Autumn to Summer factors.

Passenger transport opportunities.
Table 3-27–- Annual Passenger Numbers for P&R Buses (2013-2018), the table indicates that there has been a trend/reduction in patronage. It is unclear however, why the 2018/19 data Or 19/20 data has not be provided and outlined within the table. It is assumed that this data was not available, clarification is sought with regard to this matter.

3.7.20. Personal Injury Accidents–- additional data have been obtained from October 2019 to December 2020 for the study area. Due to the reduced traffic flows and exceptional traffic conditions from March 2020 as a result of COVID-19 restrictions, this collision analysis has been reviewed separately to the analysis undertaken for the five years, September 2014 to September 2019. This approach is acceptable.

Section 3.8–- Local plan review is ongoing and pre-examination, whilst it can be taken into account the allocation of sites at this time are not confirmed. The proposed approach as outlined with Section 3.8 is acceptable.

Other Committed developments 3.8.9. A series of other committed developments have been included in the assessment of the Proposed Scheme, including: SUE South (912 dwellings; 26 ha employment land); Land Between Preston Street & London Road, Shrewsbury, Shropshire (600 dwellings). Section 3.18..13 states that the full list of committed developments that have been included are outlined within the SATURN Forecast report – Appendix F. Whilst this provides a summary and update, it is unclear the level of occupation at the time has been taken into account of the surveys undertaken, or the occupation rate is 100% based on the expected year of completion. Further clarification with regard to this matter or confirmation where in the documents submitted further information can be found is sought.

Section 4

Section 4.3.5 – identifies that the scheme will include the Stopping up of Calcott Lane and Shepherd's Lane with connections provided for pedestrians and cyclists to the NWRR shared-use facility, it is unclear how this will be achieved from a legal perspective, and we would be grateful for the applicant to confirm. It is also unclear at what point the NWRR will become adopted Highway and added to the list of streets. It is assumed that Shropshire Council Head of Property and Development will notify the intention for the NWRR and added to the list of streets and there after maintained as Highway maintainable at the public expense.

Section 4.4.16–- Land at Ellesmere Road Roundabout

There is no reference on the submitted drawings to the downgrading of the current highway within the vicinity of the proposed roundabout at Ellesmere Road. It is assumed that existing highway areas surplus to requirements will remain Highway, and have full highway status?

Section 4.5.5 – underpass near B4380 Holyhead Road. An underpass will be provided for pedestrians, cyclists and equestrians in order to maintain access to PROW 0408/144 (Bridleway), and PRoW 0443/112/1 (Footpath). Underpasses when well designed can offer improved safety for vulnerable road users and in this case provide wider benefits from an ecology perspective.

Where possible any design should maximise forward visibility to improve user confidence as shown below. Additional width also improves users' confidence.

Construction Programme

As outline within Section 4.6.5,it is recommended that a planning condition is attached to any permission granted that requires a Construction Management Plan (CMP). This is to be submitted prior to commencement, once a principal contractor has been appointed. Any Construction Management Plan should reflect the phasing of the construction and subject to review at agreed intervals. Throughout the construction period, temporary works access will be constructed. Clarification is required If planning permission is granted in order to form temporary vehicular access, or this is not required as Shropshire Council are Highway Authority.

Table 4-2 – Indicative Construction Vehicle Traffic provides breakdown of potential movements, but it is unclear how these figures have been derived. It is recommended that further information is submitted, or any detailed CMP provides details as to how it can be mitigated. Section 4.6.10 states that the number of construction works and associated employees is unknown at this time. It is recommended that any submitted CMP provides further clarification with regard to this matter and assurances made that any contract awarded there will there be a requirement for the contractor to have a travel plan and promote sustainable travel for workers.

5 IMPACT OF DEVELOPMENT

All assumptions are based on opening year of 2023, with the road being fully completed in Spring 2024. We would seek clarification with regard to whether this is a realistic assumption.

Due to the scale of 5.3 -5.6 figures it has not been possible to fully assess the content, it is possible for the applicant to provide a larger scale diagram and associated tables. It is noted however that there appears to be an

increase in number of vehicles using A5124 Ellesmere Roundabout to Battlefield Roundabout but overall reduction on A49 south – Preston boats/Emstrey. Is it assumed that this Is because vehicles traveling north to west will reroute along NWRR, we would be grateful for further clarification with regard to this matter and the potential reasons for the increase in vehicles along A528 Ellesmere Roundabout to Plex Lane.

5.5 DETAILED JUNCTION ASSESSMENTS

The junctions assessed within the Transport Assessment are considered acceptable. However, we would seek clarification if there has been any analysis of Harlescott Lane and A458 junction, due to the proximity of the NWRR route.

It should be noted that for the purpose of clarity, Figure 5-18: Ellesmere Roundabout, shows incorrect image, and Table 5-28 Ellesmere Roundabout – Summary of 2038 Modelling Results refers to Churncote Roundabout arms not Ellesmere Roundabout. it is recommended that Table 5-28 is resubmitted so it can be considered.

Table 5-33 – Enterprise Roundabout – Summary of 2038 Modelling Results, indicates that A5124 (WB) is getting close to capacity in the afternoon peak. In view of the available highway land at this location, further clarification is sought with regard to if consideration had been given to any localised improvements at this location, in order to ensure this arm does not go above capacity.

Table 5-34 – Battlefield Roundabout – Summary of Base 2017 Modelling Results, indicates that Battlefield Roundabout is not over capacity in either the morning and afternoon peak. Site observations note that this junction in the peak hours can have significant queue lengths. Further clarification is sought with regard to whether any further junction analysis has been undertaken to further the validate the base model at this location.

On the assumption the base model at this location is accurate, Table 5.36 indicates that the A49(S) arm is over capacity in both scenarios, with and without the NWRR. On this basis mitigation works are proposed. Section 5.6.39 Indicates that mitigation is only required on this arm and closer to 2038. It is unclear from the information submitted what the likely trigger point for these works should be, further clarification is sought with regard to this matter and who the works are likely to be delivered. Table 5-37 indicates that with proposed mitigation and NWRR scenario, the A49(S) is still likely to operate over practical reserve capacity and therefore sufficient to address capacity issues at this location. The NWRR needs to be attractive in terms of journey time to ensure drivers select it as the most appropriate. Any perceived delay along the route may discourage drivers to select the NWRR and not change their current travel behaviour.

It is noted that no mitigation is proposed for the A5112, even though the capacity of the arm is reduced as a consequence of the NWRR In the afternoon peak and is over practical reserve capacity. Consideration should

be given whether there are any opportunities to make any localised improvements can be made to this arm to improve capacity and journey time through this junction. It is noted that whilst the proposed mitigation slightly improves capacity on the A49(S) arm, RFC on the A5112 arm in the afternoon peak with the NWRR increases from 0.89 to 0.92.

Table 5-70 – A5/B4386/B4386 Mytton Oak Road (Woodcote roundabout) – Summary of 2038 Modelling Results

Indicates that with the NWRR B4386 arm of the junction is over capacity and therefore mitigation is proposed. It is unclear however, the rational for implementation nearer 2038, it is suggested that further testing is undertaken to establish the most appropriate trigger point. Whilst the proposed mitigation improves the theoretical capacity on the arm and the queue length, the proposed mitigation does not bring the capacity to below practical reserve capacity. Consideration should be given to further localised improvements to ensure that the proposed NWRR does not have a detrimental impact on the local highway network at this junction (B4380 East and West).

Table 5-74 – Mytton Oak Road / Gains Park Way – Summary of 2038 Modelling Results
Indicates that Gains Park Way (left turn) will operate above practical reserve capacity. Whilst queuing along Gains Park Way does not raise a safety concern it is recommended that this junction is monitored to assess the overall impact of the NWRR, in addition to any allocations within the forthcoming Local Plan Review.

Junction 17
Table 5-75 – Racecourse Lane/Mytton Oak Road Roundabout – Summary of Base 2017 Modelling Results

It is noted that the base model for Junction 17, B4386 Mytton Oak road was based on 2017 data. The vehicle flow at the roundabout has significantly changed over the last few years since the opening of through traffic along Squinter Pip Way, between Hanwood Road to Mytton Oak Road in 2019. Further clarification is required to establish if the opening of Squinter Pip Way has been taken into account when assessing the capacity at this junction.

Junction 19 – Sundorne Roundabout

Analysis at this junction indicates that with and without the NWRR the junction is likely to operate over theoretical capacity, the operation of the junction is forecast to improve in 2038 with the NWRR compared to without. It is therefore not appropriate for the NWRR to specifically fund any localised improvements. However, the capacity of the junction is a matter Shropshire Council as Highway Authority will need to monitor with potential improvements being required in the future.

Junction 20 – NWRR / Holyhead Road

Table 5-85 – Summary of 2038 Modelling Results indicates that whilst the proposed new roundabout is not over practical reserve capacity by 2038, it is close on the NWRRI) and Holyhead Road (S). Consideration should be given to monitoring the capacity of this roundabout in the future, and ensure that sufficient land is available that in the event the roundabout reaches capacity, localised improvements can be undertaken.

Junction 21 – NWRR /Berwick Road

As above, by 2038, it is likely that this junction will operate over practical reserve capacity on the Berwick Road (S) arm and close to practical reserve capacity on the NI (E) arm. As this is a new junction, constructed in association with the NWRR, it is recommended that sufficient land is secured to ensure localised improvements can be made if the junction does operate above capacity in the future.

Section 6 – Transport Mitigation Strategy

Section 6.1.2 outlines proposals for the delivery of traffic calming measures along Welshpool Road, however it is unclear the timing of these works, there is no reference within Table 4.1 of any proposed mitigation works, it is therefore recommended that a highways mitigation plan/table is provided so it is clear the proposed timing of any mitigation works.

Figure 6-3 and 6-4, It is assumed that swept path analysis has been undertaken at Calcott and Shepherd's Lane to ensure there is sufficient turning area for refuge vehicles.

Other matters/documents submitted.

PRoW – it is assumed that it has been established that sufficient rights can be established over existing PRoW, for example, existing Bridleways that will form proposed access/maintenance tracks.

Stage 1 Safety Audit – 20/04/2020

No issues have been raised within the Stage 1 Safety Audit that have not been resolved. It is assumed that a Stage 2 Safety Audit will be completed prior to construction. Stage 3 and Stage 4 post completion if permission is granted.

Appendix 3.1 Outline Construction Environmental Management Plan

No further comments at this time, it is assumed that a full Construction Environmental Management Plan will be submitted prior to commencement once a Principal contractor has been appointed.

Traffic Forecast Report – update

No comments

General Arrangement Plans

General arrangement plans have been checked for planning purposes, no significant issues with regard to the design have been identified.

On general arrangement Sheet 24 of 32, is it possible to clarify the purpose of the steps and gate proposed? Is it assumed that it is to accommodate the diversion of the Footpath, and that it will form part of a PRoW and not full highway status?

Offsite Works

Welshpool Road – Proposals for Welshpool Road are welcomed to discourage the use of the existing route. Consideration should be given to extending the 20mph zone to incorporate Racecourse Lane and the entrance to Oxon Primary School.

Signing and markings plans

Ellesmere Roundabout/Existing Ellesmere Roundabout

It is noted that the application has been subject to a Stage 1 Safety Audit. However, no issues have been raised with regard to the proposed road markings at proposed Ellesmere Roundabout. It is considered that the proposed markings on the eastern of the Ellesmere Roundabout might lead to driver confusion, as road markings indicate that driver can use both lanes to exit onto the NWRR. There does not appear to be any filter system in place to accommodate this movement.

Signage on the existing highway

Whilst drawings have been submitted for signing and lining within the vicinity of the NWRR, we have been unable to locate any proposals for wider signing schemes on the local or strategic network that will direct drivers to use the NWRR. In addition, there appears to be no proposed 'No through route' signs at the junction of Calcott Lane/B4380 Holyhead Road and Shepherds Lane. We would seek clarification with regard to this matter.

22nd December 2021 –
This note looks to review the Public Rights of Way only. The text below provides a narrative of the review undertaken for the section of the TA on PRoW with comments highlighted in BOLD. However below are the common comments repeated in the review.

Summary of Main Comments
The counts show one direction of Non Motorised User (NMU) counts. Can it be confirmed if two-way counts be provided.

▪ Could a copy of video footage and survey spreadsheets be provided for review purposes.
▪ Could a plan clearly showing existing PRoW routes, the new diverted PRoW routes with calculation of new distance and time be provided.
▪ Can further details for the Stopping Up orders for Calcott Lane and Shepherds Lane.
▪ Can further details of new infrastructure i.e. Shepherds Lane Overbridge and Clayton Way Overpass be provided in terms of access to these.
▪ It is considered that NMU Audit should be undertaken to review the NMU proposals This should be split into smaller sections for ease.

1) The request for further information outlined within Note 3 regarding the need to undertake an NMU Audit to review proposed pedestrian diversion and infrastructure are suitable. Further information should be submitted in relation to the increase (or decrease) in journey time and distances for NMU's as a result of the proposed development, specifically in relation to the severance of Calcott Lane and Shepherds Lane. This should include further robust assessment of the likely impact of users of Calcott Lane, which based on an assessment will result in pedestrians will have to walk 500 metres each way totalling 1km which is approximately an extra 14 minutes walking time.

2) Proposed infrastructure at Holyhead Road roundabout in relation to the suitability of the proposed underpass for proposed users. Based on details submitted the proposed underpass will be 36 metres in length, and a width of 4 metres and a height of 3.950 metres. In terms of width this is below the recommended 5 metre width by the British Horse Society.

3) Future proofing of new infrastructure to be delivered as part of the NWRR. Whilst it is anticipated that the majority of new junctions provided as part of the proposed development will operate within theoretical capacity in 2038. All assessments do not take into account the proposed allocation with the Local Plan review. A number of proposed junctions, to include Holyhead Roundabout and Berwick Road Roundabout are anticipated to be close to or over practical reserve capacity in 2038. As this is a Shropshire Council promoted scheme it would be desirable that a degree of certainty is provided that localise improvements to these junctions can be provided in the future to promote and facilitate future growth up to 2038 and beyond.

4) Proposed intervention Harlescott Lane. Further clarification should be provided with regard to any proposed intervention at Harlescott Lane/Ellesmere Road junction. The submitted assessment indicates that as a result of the NWRR, the capacity at the junction of Ellesmere Road/Harlescott Lane will be severely impacted in the PM Peak, Do Something scenario. The RFC value for right turning vehicles in 2023 increases from 0.69 (2.1 PCU's) without NWRR to RFC 1.17 (36.4 PCU's) with the NWRR.

In 2038, in the afternoon peak rises from 0.69 RFC (queue length 7.7 PCU's) without NWRR to 1.39 RFC (Queue length 70.6 PCU's) with

NWRR. Notwithstanding that Shropshire Council are currently undertaking a wider assessment of the key junctions within the area that may put forward interventions at this junction, it considered appropriate that further consideration is given to whether it's appropriate for the NWRR project to deliver interventions at this junction to restrict the right turn movement prior to opening.

5) Further clarification with regard to the proposed 'Monitor and Management' strategy. The proposed level and intervals of monitoring and triggers for intervention.

9th October 2023

Further to the submission of the Technical Note 9, dated 22nd August 2023, Shropshire Council as Local Highway Authority has now had an opportunity to review the responses provided by the applicant. Whilst a number of issues have been raised within previous submitted comments on behalf of the Local Highway Authority to include those contained with the attached appendix's, the attached technical note seeks to address the five main points for consideration and other key queries raised on behalf of the Local Highway authority. These matters are considered the main issues raised and therefore responses have been provided below. At this time, we are not proposing to respond to the comments contained within the appendix's.

Shropshire Council as Local Highway Authority would respond as follow to the comments provided;

Main issues

1) **The impact on pedestrian and cycle movements within the vicinity of Calcott Lane and Shepherds Lane as a result of the NWRR.**

The applicant has confirmed the following;

"It is not practical or feasible to make provision for grade separated crossings for all footpaths, routes and roads to continue on their existing lines. Constructing grade-separated crossings involves substantial costs and the expenditure would be disproportionately high when compared to the potential benefits given the surveyed low number of users of the existing routes (especially on Calcotts Lane and Shepherd's Lane). Establishing grade separated crossings also necessitates a significant amount of space as highlighted by the proposed Shepherd's Lane Overbridge, as the ramps required to ensure accessibility for all users in accordance with design standards requires a lot of space and would not be practical".

Analysis has been submitted with regard to additional journey times as a result of the NWRR. It is considered that the overall benefits of the project must be assessed in relation to the viability of the project.

2) Holyhead Road underpass

The suitability of the underpass is a matter for Shropshire Councils Public Rights of Way team to determine. It is noted that the submitted safety audit has not raised any issues with regard to pedestrian cycle infrastructure. Annex 1 contains a response to the Stage 1 Safety Audit completed July 2020, prior to submission of the planning application. It does not appear a copy of the original audit has been submitted, it is therefore unclear which drawings and details have been considered.

Comments provided by the British Horse Society are dated 27/4/21. The initial planning application submission did not include details of the underpass, these were subsequently provided with a Technical note in response to Highway Authority comments 14th October 2021. The design of the underpass has now evolved to include daytime lighting, however it is under clear if the British Horse Society are satisfied with the design changes as they did not respond to the last round of consultation. It is noted that no issues have been raised within the Stage 1 Safety Audit , however as outlined above it is unclear if the specific details of the proposed underpass have been subject to the Stage 1 Safety Audit or any subsequent safety reviews. Prior to determination it is recommended that the applicant provides a copy of the Stage 1 Road Safety Audit and confirmation Shropshire Councils Public Rights of Way team and the British Horse society have commented and approved the details of the proposed underpass.

3) Future proofing of proposed new infrastructure

!t is understood it is not appropriate or reasonable for the proposed scheme to over provide for future development and secure additional land surplus to requirements. The proposed scheme is a Shropshire Council promoted scheme and therefore as an authority need to demonstrate that proposed future growth can be facilitated. It is a fundamental principle of the scheme that if the proposed route is an attractive route in terms of journey time and driver experience, any delay may lead to drivers using alternative routes. Whilst it might not be required to make this development acceptable it is considered that the authority is clear how future growth to include capacity at junctions can be facilitated. Whilst the authority can require developers to undertake works to mitigate the impact of any future development, these works are also subject to legal requirements and have to meet the appropriate legal test in terms of proportionate, reasonable and directly related to the development. It understood that the project team are considering the wider implications of the scheme and are preparing a statement to clarify matters.

4) Harlescott Lane intervention

In response to concerns raised, the applicant is now proposing intervention at the Harlescott Lane/Ellesmere Road junction. This

will restrict the right turn movement out of Harlescott Lane. These proposals are welcomed, not specific details of the intervention, to include signing, road marking and junction alignment have been submitted, it is therefore recommended that a planning condition is placed on any permission granted that requires details to be submitted and agreed. All works should be implemented prior to opening of the Ellesmere Road/Battlefield Way roundabout.

5) **Monitor and Manage Strategy**
As suggested by the applicant, it is recommended that a pre-commencement condition is placed upon any permission granted that requires a detailed Monitor and Manage Strategy to be submitted for approval. The submitted document should include specific reference to mitigation, to include general arrangement drawings identifying the location and scope of works. Specific details with regard to the level of monitoring surveys to be undertaken and proposed trigger points for intervention.

It is noted that WSP have responded on behalf of the applicant, to other queries within technical note 9. A response to these points are as follows, those that require additional information are highlighted;

Shropshire Council Items 1 and 2 are noted and no further comments are required.

Shropshire Council Item 3 – Updated passenger numbers are welcomed to provide clarity with regard to the current position. It is likely that the future of Oxon Park and Ride will be a matter for consideration. Therefore, it is recommended that a statement with regard to the future of Shrewsbury Park and Rides is prepared.

Shropshire Council Items 4, 5 and 6 – no further comments

Shropshire Council Items 7 – Stopping up of existing highway. Comments are noted, if there is any further clarification with regard to the status of this process it should be made available.

Shropshire Council Items 8

Annex 1 – provides response to Stage 1 Road Safety Audit but does not provide a copy of the safety audit completed, it is therefore unclear which drawings and details were subject to the Safety Audit. The safety audit appears to have been completed July 2020, prior to submission of the planning application. The design of the project has evolved, to include the removal of the overtaking lane, and therefore it is unclear if any further safety reviews or audits have been completed. This matter requires further clarification as any comments and observations from the Stage 1 Safety Audit will need to be taken into account within Stage 2 Safety Audit.

Shropshire Council Items 9- No further comments

Shropshire Council Items 10 – please refer to Item 5 of the main issues above for comment regarding the Holyhead Road underpass.

Shropshire Council Items 11 – Construction Management Plan should be submitted prior to commencement. Any submitted plan should reflect the phasing of the works and provide details of stakeholder engagement and communication strategy.

Shropshire Council Items 12, 13 and 14– no further comments.

Shropshire Council Items 15 and 16 – please refer to comments in relation to item 4 – main items above. Issue has now been resolved with proposed intervention.

Shropshire Council Item 17– no further comments

Shropshire Council Items 18 and 19 – no further comments, the operation of this junctions and the highway network will be monitored through annual surveys and post scheme monitoring.

Shropshire Council Item 20 – please refer to comments in relation to item 4 – main items above. Issue has now been resolved with proposed intervention.

Shropshire Council Item 21– no further comments

Shropshire Council Items 22 and 23 – no further comments at this time, the operation of Battlefield Roundabout junction and the wider highway network will be monitored through annual surveys and post scheme monitoring and has been included in the Monitor and Manage strategy.

Shropshire Council Item 24 – no further comments, the operation of this junction and the highway network will be monitored through annual surveys and post scheme monitoring. The junction is also primarily within the control of National Highways.

Shropshire Council Item 25– no further comments, the operation of this junctions and the highway network will be monitored through annual surveys and post scheme monitoring.

Shropshire Council Item 26– no further comments

Shropshire Council Item 27– no further comments, it is considered Shropshire Council as Local Highway Authority will continue to monitor the operation of this junction as part of the wider improvements to the network.

Shropshire Council Item 28 – no further comments

Shropshire Council Item 29 and 30 – please refer to comments in relation to item 3 main items above.

Shropshire Council Item 31 and 32– no further comments, works along Welshpool Road will be subject to Monitor and Manage strategy and implemented at agreed trigger point.

Shropshire Council Item 33 – details should be submitted for consideration

Shropshire Council Item 34 – no further comments, applicant has noted concerns raised.

Shropshire Council Item 35 – Copy of the Stage 1 Safety Audit should be provided, as outlined in response to Item 8 above.

Shropshire Council Item 36 – no further comments, please refer to Item 11 above.

Shropshire Council Items 37 and 38 – no further comments

Shropshire Council Item 39 and 40 – no further comments

Shropshire Council Item 41 – no further comments, design will be subject to Stage 2 Safety Audit, any concerns will be raised by Audit team.

Shropshire Council Item 42 – it is recommended that a scheme detailing wider signing strategy is submitted for approval prior to commencement and this is subject to a planning condition.

5.3.20 **Shropshire Rights of Way Officer – OutstandingOustanding concerns in relation to severance**

There are numerous rights of way that cross the application area and they have been acknowledged by the applicant, the diversion of these footpaths as a result of the development will need to be addressed through a pre-commencement condition.

5.3.21 **Shrewsbury Ramblers Association – Object**

The NWRR, for most of its length, would run through countryside and the result would be degradation of a large area because of noise, pollution and visual intrusion. The NPPF and the Council's own Core Strategy have been ignored. Of special note is that the NWRR would cut across the 'green wedge' of rural landscape which is a particular asset to Shrewsbury. Not many towns can boast such a fine green riverside approach to the town. One of the Ramblers' principles is to work with nature by supporting and restoring habitats and species. The NWRR will be in direct opposition to this with the loss of irreplaceable veteran trees and mature hedgerows. Suggested mitigation proposals are unconvincing. Our view is that the planned NWRR would undoubtedly degrade our walking environment.

5.3.22 **British Horse Society – Object**

25th April 2021

We were hopeful in the early stages of planning the North West Relief Road (NWRR) that a new green corridor of routes for equestrians and all other vulnerable road users would be opened up but are disappointed this

has not materialised. We welcome the addition of a new bridleway (BW) along part of the north side of a short section of the route between Calcott Lane and the Holyhead Road roundabout with a short road link at Clayton Way. We also acknowledge the provision of the underpass for the BW at the roundabout with Holyhead Road. However, we are very concerned that in other respects equestrian needs have not been taken into account in spite of the wealth of information that has been submitted by equestrians over the past years.

Specific Concerns are the Shepherd's Lane Overbridge, the poor Road Crossing on the Holyhead Road and the lack of BWs to the North East of the River Severn.

7th October 2021
We have commented extensively on the 2020 consultation for the North West Relief Road (NWRR) and are disappointed that, during the modifications to the plans presented in this latest consultation, our comments have not been taken into account.

A further consultation was sent on 11th March 2023, but no further response was received.

5.3.23 **Shropshire Council Landscape – Conditional Acceptance**
22nd March 2021
The Landscape Visual Impact Assessment has been carried out in a clear, evidenced manner in compliance with GLVIA3, however we have some concerns that the effects on landscape character have been understated, and we have recommended that these assessments be reviewed. It may just be a case that more justification is made for the assessments made in accordance with the LVIA methodology.

6th October 2021

The revised Landscape & Visual Impact Addendum concludes that the proposed design changes will not result in any changes in predicted landscape and visual effects and officers consider this is an appropriate judgement.

Revised landscape planting plans have been reviewed and changes to the landscape proposals arising from the proposed design changes have been appropriately made.

As a result of the above, no revisions to our May 21 Review are proposed.

6th March 2023
Information (SEI) report (January 2023) and Figure 1.3 Proposed Scheme Design Changes. The implications of the proposed scheme changes on the landscape and visual resource are set out in Table 6-1 of the SEI and having assessed the proposed changes against the LVIA for the project,officers conclude that the effects on landscape character will not change and that no additional significant residual visual effects have been identified.

Revised landscape plans which, subject to detailed design, appear to satisfactorily address the scheme revisions.

The recommendations in officers LVIA review (May 2021 Rev A) in relation to conditions for a Soil Resource Plan and landscape details remain.

5.3.24 **Natural England - no objection subject to appropriate mitigation being secured**

7th October 2021

As submitted, the application could have potential significant effects on the Midlands Meres and Mosses Phase 2 Ramsar site, Hencott Pool SSSI and Old River Bed SSSI. Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation. The following information is required:

-A Habitat Regulations Assessment

-Clarification to the Information to Inform a Habitats Regulations Assessment

-Additional information in relation to indirect impacts on the Old River Bed Shrewsbury SSSI

-A strategy for mitigating effects

Without this information, Natural England may need to object to the proposal. Please re-consult Natural England once this information has been obtained. Natural England's further advice on designated sites/landscapes and advice on other issues is set out below.

27th March 2023

Without appropriate mitigation air pollution from the application is likely to adversely affect the integrity of the Hencott pool SSSI component of the Midland Meres & Mosses Phase 2 Ramsar Site. The mitigation proposed has the potential to fully mitigate for these impacts, but more information is required on how this mitigation will be delivered in practice. More information is also required in relation to the in-combination assessment and in relation to air-quality monitoring.

We are concerned that the appropriate assessment contains very little data and evidence. We are aware of the data that has been used to inform this appropriate assessment because we have discussed it with WSP as part of our pre-consultation advice, and this has enabled us to formulate the advice provided in this letter. However, when the final appropriate assessment is produced, we would strongly encourage it to be fully transparent, and either include the data and evidence within the assessment itself, or alternatively provide clear references to the relevant sections of a separate air-quality report.

23rd June 2023

Without appropriate mitigation air pollution from the application is likely to adversely affect the integrity of the Hencott pool SSSI component of the Midland Meres & Mosses Phase 2 Ramsar Site. The mitigation proposed has the potential to fully mitigate for these impacts, but more information is required on how this mitigation will be delivered in practice.

The table significantly helps with cross-referencing the information in the air quality chapter with the information to inform a HRA document. We would recommend including this table when Shropshire County Council produce/adopt the final HRA.

NE welcome the clarification of what activities will be allowed and prohibited. We agree that the lists of activities are appropriate. We would recommend also including a blanket prohibition on the application of any inorganic or organic nitrogen-based fertilisers. We again point out that woodland planting may not be appropriate near to a wetland but we note that a HRA will be conducted if this option were to be pursued.

Some of the information we have requested is yet to be provided and we list this again below. We would recommend that this information is produced ahead of Shropshire Council producing/adopting the final HRA. The information consists of a) timescales, b) duration of legal agreements, c) will landowners be compensated? d) enforcement regime. The monitoring regime proposed is considered satisfactory.

14th July 2023
Without appropriate mitigation air pollution from the proposed new road is likely to adversely affect the integrity of the Hencott Pool SSSI component of the Midland Meres & Mosses Phase 2 Ramsar Site. The mitigation proposed has the potential to fully mitigate for these impacts, but more information is required on how this mitigation will be delivered in practice.

Natural England notes that your authority, as competent authority, has undertaken a Habitats Regulations Assessment of the proposal in accordance with regulation 63 of the Conservation of Species and Habitats Regulations 2017 (as amended). Natural England is a statutory consultee on the appropriate assessment stage of the Habitats Regulations Assessment process, and a competent authority should have regard to Natural England's advice.

The applicants appropriate assessment concludes that your authority is able to ascertain that the proposal will not result in adverse effects on the integrity of any of the sites in question. Having considered the assessment, and the measures proposed to mitigate for any adverse effects, it is the advice of Natural England that it is not possible to ascertain that the proposal will not result in adverse effects on the integrity of the site in question.

Natural England advises that the assessment does not currently provide enough information and/or certainty to justify the assessment conclusion, particularly in relation to the deliverability and certainty of the proposed mitigation measures, and that your authority should not therefore grant planning permission at this stage.

<u>Specific comments</u>

Screening assessment (section 2 of the Habitats Regulations Assessment):We concur with the conclusions of the screening assessment

however in paragraph 2.2.1 nitrogen deposition needs to be added as a pollutant alongside ammonia and NOx.

Impact of the proposed new road alone (paragraphs–3.1.1 - 3.1.32 of the Habitats Regulations Assessment)

We confirm that this section contains an accurate reflection of our previous advice and we concur with the conclusions of this stage of the assessment.

Impact of the proposed new road in-combination (paragraphs –.1.33 - 3.1.41 of the Habitats Regulations Assessment)

It would be helpful if this section could present the criteria that were used to identify the plans or projects that could act in-combination with the proposed new road. This would provide assurance that the search for potential plans or projects was conducted thoroughly. We confirm that the assessment of the two projects that have been identified has been conducted appropriately. We concur with the conclusions of this stage of the assessment.

Securing mitigation measures (paragraphs –.1.60 - 3.1.66 of the Habitats Regulations Assessment)

This section is presented after the conclusions of the appropriate assessment. However, as we have previously advised it is an essential component of the assessment itself. The proposed mitigation technique is novel, complex and will take time to deliver. A level of detail is necessary to provide sufficient certainty that the mitigation technique can be delivered in practice.

Some of the information we have requested is yet to be provided and we list this again below:

a. Overall timescales. We note that the land-use change will be achieved via negotiated section 106 agreements or compulsory purchase powers if negotiations fail. We agree that these are effective mechanisms of achieving land-use change, but negotiations in relation to the former can be protracted and use of the latter is subject to legal challenge. It is essential that the land use change is achieved ahead of impact. At the moment some key information in relation to this is missing, such as whether the land-use change will occur in one go or whether it will be phased, and whether there will be a time lag between the change in land use and the reduction in ammonia and nitrogen deposition reaching Hencott Pool. Finally, information on the duration of section 106 agreements (paragraph 3.1.62) is currently vague. The first sentence of this paragraph states that the duration will be 80-100 years whereas the second sentence states that the duration will be informed by the anticipated lifetime of the use of the road. to rectify this uncertainty, we have previously recommended that the developer should provide an outline project plan which sets out realistic timescales for delivering the mitigation scheme.
b. Funding. Key information on how the mitigation scheme will be funded

continues to be lacking. In particular, we don't know if landowners will be compensated for having to desist from agricultural activity, and whether funding for the alternative land management activities will be made available. In relation to the latter, agri-environment schemes administered by the Rural Payments Agency may not be applicable as a pre-requisite of such schemes is that land must be available for grazing. To rectify this uncertainty, we would recommend that the project plan referred to above includes the full costings of delivering the mitigation scheme. A fully costed plan for how the fields are to be managed in the future would also be helpful.

c. How will the aim of the mitigation be enforced? We welcome clarification at paragraph 3.1.66 that there will be compliance checking but we feel that more details are required, particularly on the resources that will be allocated to this activity and who will carry it out in practice. This uncertainty could be rectified by a compliance plan.
d. Monitoring. We welcome the commitment to undertake further air quality monitoring and modelling. The document states that this may allow a reduction in the area of land on which agricultural activity will be prohibited if the mitigation technique performs better than expected. However, it is also possible that the opposite may occur (i.e. the mitigation technique performs worse than expected and additional land is required to be brought into the mitigation scheme). For this reason, we would recommend full details of the proposed monitoring and modelling are provided to give certainty that it will detect any shortcomings in the mitigation technique.

25th August 2023
No objection - subject to appropriate mitigation being secured

We consider that without appropriate mitigation the application would:
- have an adverse effect on the integrity of the Midland Meres & Mosses Phase 2 Ramsar Site
- damage the interest features for which Hencott Pool Site of Special Scientific Interest has been notified

In order to mitigate these adverse effects and make the development acceptable, the following mitigation measures are required:
- mitigation and monitoring scheme
- a planning condition obliging the developer to deliver the mitigation and monitoring scheme
- section 106 agreements obliging the applicable landowners to comply with the mitigation and monitoring scheme

We also have the following recommendations:
- revision of the timeline for securing mitigation
- further clarity on monitoring

<u>General Comments</u>

Natural England notes that your authority, as competent authority, has undertaken a Habitats Regulations Assessment of the proposal in accordance with regulation 63 of the Conservation of Species and Habitats

Regulations 2017 (as amended). Natural England is a statutory consultee on the appropriate assessment stage of the Habitats Regulations Assessment process, and a competent authority should have regard to Natural England's advice.

Your appropriate assessment concludes that your authority is able to ascertain that the proposal will not result in adverse effects on the integrity of the Midland Meres & Mosses Phase 2 Ramsar Site if the proposed mitigation can be secured. Natural England concurs with this view.

Natural England notes your comments at paragraph 3.1.19 of the Habitats Regulations Assessment that (i) further air quality monitoring surveys have been undertaken during 2023 which demonstrate that the application of mitigation will be more beneficial than originally presented, and (ii) as such changes to mitigation are being considered. Your organisation may wish to seek legal advice on this as Habitats Regulations Assessments do need to be based on the "best available scientific information". Paragraph D.7.2. of "The Habitats Regulations Assessment Handbook" states "To conclude no adverse effect on integrity, the competent authority must be confident that no reasonable scientific doubt remains as to the absence of such effects. … scientific evidence which has become outdated or superseded by improved approaches would introduce reasonable doubt as to whether the competent authority is using the best available information." Natural England have responded to this version of the assessment in the interest of expediency but if the underlying data and/or approach to mitigation substantially changes we would recommend that you conduct an updated assessment and consult us on it.

Specific comments Screening assessment (section 2 of the Habitats Regulations Assessment)

We concur with the conclusions of the screening assessment.

Impact of the proposed new road alone (paragraphs–3.1.1 - 3.1.34 of the Habitats Regulations Assessment)

We confirm that this section contains an accurate reflection of our previous advice and we concur with the conclusions of this stage of the assessment.

Impact of the proposed new road in-combination (paragraphs –.1.33 - 3.1.44 of the Habitats Regulations Assessment)

We confirm that the assessment of the two projects that have been identified has been conducted appropriately. We concur with the conclusions of this stage of the assessment. It should be noted that a contribution of "<3% of the critical load" is not in itself "a level where any changes (changes to species composition/competitiveness) would be negligible/ imperceptible" (i.e. in all cases). However, in this case, the reasoning at 3.1.32 applies and it was concluded that an adverse effect on integrity could be excluded (as a result of the project alone). We concur that the additional ammonia concentration/ N deposition identified within the in-combination assessment would not undermine this conclusion – but this is

not because the contribution (of N deposition) remains under 3%.
Securing mitigation measures (paragraphs –.1.53 - 3.1.64 of the Habitats Regulations Assessment)

The proposed mitigation technique is novel, complex and will take time to deliver. We have previously advised that a level of detail is necessary to provide sufficient certainty that the mitigation technique can be delivered in practice. Whilst we are now of the view that sufficient information has been provided, we have the following recommendations:

a. Overall timescales (paragraph 3.1.60). We are concerned that the timescales for negotiating section 106 agreements are unrealistic (three months). Our experience of using section 106 agreements to achieve land use change is that negotiations can be protracted. There is also no mention in this timeline of the proposed use of Compulsory Purchase Orders if negotiations fail to reach agreement. Conversely the timescales between preparing the final mitigation plan and commencing it on the ground appear to be quite long (two years). The timeline should be rebalanced to reflect this advice.

b. Monitoring. Whilst we welcome the monitoring proposals the assessment currently mixes up the different types of monitoring that have been proposed (especially in paragraph 3.1.62). The three types of monitoring that will be undertaken are:
Air quality monitoring - to investigate the amount of air pollution emitted by the new road and the amount that is being reduced by the mitigation scheme Vegetation monitoring - at Hencott Pool to investigate any changes to the botanical communities of the SSSI
Compliance monitoring - to ensure that agricultural activities are not being undertaken within the fields that are part of the mitigation scheme. We recommend clearly distinguishing between these three types of monitoring in the mitigation and monitoring scheme.

5.3.25 **Shropshire Council Ecology Team – Objection in principle**

17th June 2021

SUMMARY

This is a summary of the broad points which need to be considered with regard to ecological impact assessment and mitigation requirements for this proposed development, the explanations for which are detailed below in the response. These points need to be addressed prior to any planning decision.

1. Survey methodology used to assess trees for bat roosts needs to be clarified.
2. Further information on the status of common toad within the vicinity of the Proposed Development is required.3. Further survey is required for the following: roosting bats (trees and buildings) and otter.
4. Further survey may be required for the following: bats (landscape monitoring transects), GCN and dormouse.
5. Further information is required regarding air quality impacts and

hydrological impacts on selected sites.
6. Interpretation of survey results needs to be presented graphically for badger.
7. The evaluation of the importance of birds needs to be accompanied by a robust rationale, utilising relevant available assessment methodologies.
8. Mitigation for bats, (foraging and commuting) and badger needs to be presented on species specific plans.
9. Lighting levels at proposed wildlife crossings need to be reviewed.
10. Mitigation options for the loss of wet woodland and linear river habitat should be explored.
11. Justification for mitigation proposed for bats, badger and otter needs to be provided, demonstrating why it is considered to be effective for the species concerned.
12. Licences are required for badgers, roosting bats and great crested newt. For the latter, if District level Licence is to be utilised, in principal permission would need to be secured from Natural England prior to planning permission.

2nd June 2023
SUMMARY

Objection. The Proposed Development will lead to the direct loss of veteran/ancient trees which are irreplaceable assets. In addition, there are no details submitted to mitigate or compensate for the loss of wet woodland, a UK priority habitat or for impacts to river habitat.

As required by Regulation 63 of the Conservation of Habitats & Species Regulations 2017 (as amended), before Shropshire Council (the competent authority) can grant planning permission for a project that has the potential to affect an internationally designated site, the council has to undertake a Habitat Regulations Assessment.

A Habitats Regulations Assessment has been prepared by the LPA pertaining to the Midland Meres and Mosses Phase 2 Ramsar (constituent site - Hencott Pool) and the Severn Estuary Special Area of Conservation and Ramsar.

Natural England have confirmed their agreement with the conclusions of the HRA; that the proposed development will not adversely affect the integrity of the Midland Meres and Mosses Phase 2 Ramsar (constituent site - Hencott Pool) and the Severn Estuary Special Area of Conservation and Ramsar.

Planning obligations will be required to be entered into to secure mitigation for impacts to Hencott Pool Ramsar and also to secure a suitable compensation strategy for impacts upon irreplaceable assets.

Detailed comments

Since June 2021, much additional work has been undertaken to inform the

application which is included in updated ES chapters and in a whole host of Supplementary Environmental Information (SEI) documents and accompanying appendices.

HENCOTT POOL – HYDROLOGICAL IMPACTS

It is noted that further ground investigations have been undertaken and information to Inform a Habitats Regulations Assessment has been provided which concludes that the evidence collected demonstrates that there is no hydrogeological connection between the Proposed Development and Hencott Pool SSSI/Ramsar and therefore this impact pathway is not present and is screened out from further consideration.

The Environment Agency have considered the information and conclude in their response dated 3 May 2023 that 'based on the current known design and road alignment it appears the proposed scheme construction and final use is unlikely to pose a significant detrimental impact to the groundwater environment supporting the RAMSAR/SSSI feature'.

HENCOTT POOL – AIR BORNE EMISSIONS

It has been identified that, during operation, the Proposed Development may be likely to cause an air quality impact to the Midland Meres and Mosses Phase 2 Ramsar Site (constituent site - Hencott Pool) and therefore, as required by Regulation 63 of the Conservation of Habitats & Species Regulations 2017 (as amended), before Shropshire Council (the competent authority) can grant planning permission for a project that has the potential to affect an internationally designated site, the council has to undertake a Habitat Regulations Assessment.

SEVERN ESTUARY – CONSTRUCTION IMPACTS

It has been identified that, during construction, the Proposed Development may be likely to cause a physical impact to functionally linked habitat and disturbance through noise, vibration and lighting to the Severn Estuary Special Area of Conservation and Ramsar and therefore, as required by Regulation 63 of the Conservation of Habitats & Species Regulations 2017 (as amended), before Shropshire Council (the competent authority) can grant planning permission for a project that has the potential to affect an internationally designated site, the council has to undertake a Habitat Regulations Assessment.

OTHER DESIGNATED SITES – AIR BORNE EMISSIONS
Supplementary information on the impacts of airborne emissions on irreplaceable habitats and features (ancient woodland and veteran/ancient trees) as well as Local Wildlife Sites has been submitted.

Those subject to negative effects of increased ammonia concentrations and increased rates of nitrogen deposition are:

Moderate adverse:
Alkmund Park Wood Ancient Woodland

42 ancient/veteran trees

Slight adverse:
Hortanlane Coppice Ancient Woodland
Woodcote Coppice Ancient Woodland
Oxon Pool Local Wildlife Site
Shelton Rough Local Wildlife Site
No sites would exceed the annual mean NOx Critical Level.

Appendix 3.E has been provided as ‘a suitable compensation strategy’ under the NPPF. There is a lack of any proposed compensation measures for Hortanlane Coppice or Woodcote Coppice, both of which are ancient woodlands, although it is also acknowledged that effects on these as a result of the proposed development are assessed as being of only slight adverse significance. Nevertheless, it would be expected that some outline of proposed measures to compensate for effect enhance be identified, in the absence of any proposed mitigation.

There appears to have been a lack of consideration given to woodland planting adjacent to or linking to affected woodlands. This would also be a welcome increase in woodland cover as a result of the proposed development.

Concerns are raised with regards the general lack of detail at this stage with regards to compensation for effects on ancient woodland and veteran trees. It is not clear as to what measures or indeed, suite of measures must be secured in order to ensure that the compensation strategy is ‘suitable’ as per the NPPF. The acceptability of this approach together with the level of detail supplied at this stage, should therefore be considered for compliance with the NPPF and in line with published planning practice guidance.

COMMON TOAD: Toad Assessment Technical Note has been submitted which have been considered with regards to previous comments about the lack of information on the presence/likely absence of this species in waterbodies in the vicinity of the Proposed Development and potential impacts upon them.

Common toad has been incidentally recorded in five waterbodies across surveys undertaken in 2017 and 2018. In 2021, GCN presence / likely absence surveys and eDNA surveys were undertaken in which common toad was incidentally recorded in one waterbody during eDNA surveys.

The data supplied has not identified any large ‘notable’ population of common toad in the vicinity of the road and with the proposed habitat enhancement measures for GCN as presented in Appendix 1:B and Appendix 1.V of the SEI it is considered that the proposed development will also provide suitable mitigation / enhancement for common toad.

GREAT CRESTED NEWT
Update surveys for GCN presence/likely absence in ponds within 250m of the Proposed Development were undertaken in 2021 and an overview

assessment of the status of GCN within the impact zone of the proposed development has been undertaken. Proposed habitat enhancement measures for GCN will provide enhancement for GCN above that which will also be secured through the DLL scheme (see below). There are however questions over the inclusion of a long length of permanent GCN fencing at the western end of the proposed development. In order to ensure it remains an effective barrier to GCN entering the carriageway from the north and east, the vegetation immediately adjacent to it would need to be regularly strimmed/sprayed during the growing season, with the associated knock-on environmental effects associated with this. It also has the added disbenefit of actually trapping animals (and not just GCN) if they venture onto the road from the south or west. It is not considered that the fencing is either required to ensure that GCN are maintained at a favourable conservation status or that this is a sustainable mitigation measure. It is therefore recommend it is not included in detailed plans going forward.

The applicants have confirmed that they intend to utilise the Shropshire Great Crested Newt (GCN) District Level Licensing (DLL) scheme to ensure that the proposed development will not be detrimental to the maintenance of the population of GCN at a favourable conservation status in their natural range. A counter signed Impact Assessment and Conservation Payment Certificate has been submitted to the LPA as evidence that Natural England has confirmed acceptance of the Proposed Development to enter the GCN DLL scheme.

A a European Protected Species 3 tests matrix has been undertaken for GCN and Bats.

BADGER
Badger surveys (including bait marking) have been undertaken across the proposed development between 2017 to 2022 to build up a picture of badger activity and sett locations/use within the impact zone of the proposed development.

As previously reported in the 2021 ES, badger activity in the area appears to be relatively low, and only one main sett is assessed as being directly impacted by the proposals., as well as a subsidiary sett which is thought to be associated with it from the bait marking results. In addition, two outlier sett, highly likely to be of another clan, will also be lost. The SEI now correctly identifies that the closure of the four setts will require a licence from Natural England.

A replacement sett for the loss of the main sett is proposed which appears suitable as it will be within the same conjectured clan territory based on the bait marking results.
As requested, separate badger mitigation plans have been provided which makes it much easier to see all the measures proposed and assess them against recorded badger activity for their suitability/likely effectiveness. Tunnels are provided in key locations to allow badgers (and other wildlife) to cross the new road safely as well as accompanying badger fencing to direct badgers to the crossing points. Maintenance of badger fencing must

be included in the landscape management plan for the Proposed Development, which should be conditioned.

Mammal ledges have now been shown on the Oxon Pool Culvert together with detail showing how it will be accessed from the surrounding ground level, however, nonew information appears to have been submitted with regards to previous concerns re Wlllow Pool Culvert and its accessibility for wildlife. Cross section D-D does not show how wildlife would access the mammal ledge provided from the surrounding ground level at its southern end. This information should be submitted.

Officers are satisfied that the mitigation measures shown will adequately mitigate for adverse impacts upon badger as a result of the proposed development except in two details: 1. Badger tunnels should be a minimum of 600mm in width. 2. Details of how wildlife will access the mammal ledge provided through Willow Pool Culvert must be provided on an updated plan.

ROOSTING BATS
Update surveys of West View have been undertaken in 2021 and 2022 which re-confirmed use of B3 (now referred to as B1 in the latest reports) as a bat roost. Both common pipistrelle and soprano pipistrelle were recorded during emergence surveys in low numbers, indicating that the building supports summer roosts of these species which are of a low conservation value. Hibernation surveys did not record any bats, however a detector deployed in the roof space recoded calls of common pipistrelle in March, indicating possible use as a transitional roost. Mitigation in the form of boxes in suitable habitat that is ecologically connected to the existing roost location is proposed which is considered suitable and the SEI now identifies that the demolition of B1 will require a licence from Natural England.

A refreshed assessment of the garage has also been undertaken which confirms it as having negligible potential for roosting bats.

The applicant’s consulting ecologists have confirmed that the roost classification for trees was indeed undertaken in accordance BCT Best Practice Guidance (Collins et al 2016) and that the incorrect categorisation criteria were erroneously reproduced in the previous report.

Since previous comments relating to concerns about lack of surveys of some trees shown to be removed, the latest SEI states that all trees within the survey area proposed for removal have now been surveyed for their bat roost potential. Having examined the information , the ecology team are satisfied that sufficient survey effort has now been expended to identify tree roosts and that previously omitted trees (which are subject to removal) have now been surveyed appropriately.
Four trees have been identified as supporting bat roosts, although as bats switch tree roosts frequently, surveys can only ever be a snapshot in time. Realistically bats will utilise a woodland or group of trees or indeed more isolated trees as a whole resource so as correctly identified in the bat Tree

Report and Bat Roost Mitigation Strategy, precautionary measures (such as pre-works inspections and section felling should be implemented during tree clearance works, on trees with bat roost potential.

For the bat roosts identified in West View and in the four trees it is considered that the mitigation and compensation proposed would maintain the populations of noctule, common pipistrelle and soprano pipistrelle bat at a favourable conservation status in their natural range. A mitigation licence from Natural England will be required to allow the removal of West View and the four trees identified as being utilised by bats for roosting.

COMMUTING AND FORAGING BATS
Automated detector surveys were undertaken on land at the western end of the route in 2021, although transect surveys were not undertaken. Surveys also did not include the spring period, In 2022, automated detector surveys were undertaken at positions along the whole route, as well as updated crossing point surveys at 6 locations. The applicants have provided a justification as to why they consider that limitations would not affect the EIA, and they have applied professional judgement and a precautionary estimate of roosts in the area. It is not considered that further survey would alter this evaluation.

The conservation importance of the populations of bat species utilising the land within the redline boundary recorded during surveys between 2017 and 2022 has been assessed utilising Wray et al (2010) with Barbastelle and Myotis bat populations being assessed as being of regional importance, soprano, common and Narthusis' pipistrelle, noctule and lesser horseshoe bat populations being assessed as being of county importance All other species recorded have been assigned a local level of importance.

As requested, separate bat mitigation plans have been provided which makes it much easier to see all the measures proposed and assess them against recorded bat activity for their suitability/likely effectiveness.

Two plans have been submitted which show the bat mitigation measures proposed along the route, including culverts and an underpass (which will also provide passage for people and land mammals). Use of bat hop-overs is promoted as a mitigation measure at various locations. These will involve the retention of existing tree and hedge vegetation, which bats use as flight paths, as well as the planting of standard tree stock as close to the carriageway as possible to provide a small as gap as possible without vegetation over the road. This measures would also improve over time as trees mature.

There is a paucity of evidence on the effectiveness (or not) of mitigation measures for commuting bats impacted by new roads, however, the Proposed Development is not a dual carriageway and at three locations, culverts and an underpass will provide safe passage for bats, which have, in a few studies, been shown to use such features, particularly if vegetation is planted or retained to guide bats to them.

Hop overs and culverts/underpasses are reliant on an effective Construction Environmental Management Plan (Ecology) (including tree and hedge protection) being in place and adhered to throughout the construction as well as detailed landscaping plans, both of which are recommended be conditioned.

Lighting in the vicinity of these key crossings is also an important factor and it is noted that the bat mitigation plans include proposals to limit light spill onto proposed hop-over crossing points. Where LEDs are used, to limit impacts upon bats, amber or red emitting LEDs should be used, as blue spectrum light has been shown to deter light sensitive species. It is proposed that the underpass east of Holyhead Road has passive infrared sensors, positioned so as to not activate when badger or other land mammals travel through.

Details of lighting will be conditioned.

MONITORING OF BATS
2022 surveys of crossing points where proposed mitigation for bats is to be provided have been undertaken as well as update linear transect surveys in response to my previous comments. These have informed the bat impact assessment and mitigation provision. Updated linear transect surveys have not been undertaken since the previous comments however, as these are not designed to inform mitigation, only to monitor impacts of the proposed development pre-and post-construction on bats, it is considered that a condition can be applied for landscape transects to be undertaken before, during and after construction at specified timeframes. Up to date baseline (pre-construction) surveys should be undertaken in the whole summer directly preceding the onset of any groundworks or vegetation clearance.

BIRDS
An updated breeding bird survey of Survey Area was undertaken between April 2022 and August 2022 and the assemblage(s) of breeding species recorded have been assessed against the Fuller criteria to arrive at a value for the bird assemblage of ‘local’. This is also the case for wintering birds.

Impacts during the construction phase identified are vegetation clearance and disturbance which would be mitigated for by undertaking essential vegetation clearance outside of the bird breeding season and the use of soft start techniques, low piling and directional lighting. This will be detailed in a Construction Environment Management Plan (Ecology) which will be conditioned.

No measures have been provided in the ES or SEI to mitigate for the loss of nesting opportunities provided by mature woodland and trees which are to be removed and a condition to secure nesting boxes to mitigate for this loss, prior to the landscaping maturing is recommended

DORMOUSE
Update dormouse surveys were undertaken between April and September 2022 at locations previously assessed as having some potential to support dormouse and which were surveyed in 2019/20. Surveys were lead by

suitably experienced surveyors (licence holders).

The update 2022 surveys did not record any hazel dormouse presence in the areas of suitable habitat, as was the case in the previous surveys. Hazel dormouse are therefore considered to be likely absent from the area and not to be affected by the proposed development.

OTTER
Update surveys for otter were undertaken in 2021 and 2022, including deploying camera traps along the river Severn and a survey by boat to assess sections of the river which were inaccessible from land.

The river Severn supports suitable habitat for foraging and commuting otter and they are well known to use the river. Surveys confirmed their use of the river and banksides, with spraints and footprints found.

Within the survey area (which included the Proposed Development redline and 30m either side up and downstream) evidence of use of the bankside by otter was limited. It is considered that with the inclusion of mitigation measures to limit disturbance to otters during works and post construction (as identified in the submitted documentation) that an otter mitigation licence would not be required.

A Construction Environmental Management Plan (Ecology) will be conditioned which would detail working practices which would be adhered to, to ensure impacts to otters are avoided.

BIODIVERSITY IMPACT METRIC
A net loss of 0.62ha of wet woodland and 347m of watercourse are noted in the biodiversity metric.

No details of wet woodland enhancement or creation or river improvements to mitigate or compensate for these impacts have been included in the new environmental information. In the absence of this information, the proposed development is not in accordance with policy MD12.

DIRECT LOSS OF VETERAN AND ANCIENT TREES
A number of irreplaceable assets (veteran / ancient trees) are identified as being removed as part of the Proposed Development, so the BNG report correctly identifies that enhancement of biodiversity (ie a measurable net gain) cannot be demonstrated for the proposed development. The development therefore does not accord with policy CS17 of the Local Plan or NPPF paragraphs 174 or 180 (d).

Compensation is proposed in the strategy for the direct loss of nine veteran trees is planting of oak trees, in suitable locations, at a ratio of six planted for every one lost. The details of this would need to be included in detailed management plans and landscaping plans, which would need to be secured by condition.

16th October 2023

These current comments are made in light of the most recent version of the Draft Compensation Strategy (Supplementary Environmental Information Appendix 3.E: Draft Compensation Strategy for Ancient Woodland, Veteran Trees and Local Wildlife Sites Revision 2, WSP, October 2023), submitted by e-mail on 12/10/2023 together with commentary provided in e-mails from WSP dated 12/10/2023 and 13/10/2023.

WET WOODLAND PRIORITY HABITAT
In the e-mail from WSP dated 12 October 2023 an update was provided on the proposed strategy for compensating for the loss of 0.62ha of wet woodland, a priority habitat.

The consultant ecologist has provided commentary on the effort made to identify suitable locations for wet woodland compensatory habitat within 2km of the proposed development, although the end result is that no suitable locations have been found. The applicant therefore proposes to compensate for the loss of wet woodland by the planting of broadleaved woodland within the redline boundary of the scheme as well as a 0.75 ha buffer of planting to the south of Hencott Pool Ramsar site.

No additional planting to compensate for the loss of wet woodland habitat has been identified by the applicant, rather the compensation suggested is what is already being delivered as compensation for the loss of other types of woodland habitat, therefore, it cannot be double counted and promoted as compensation for the loss of wet woodland.

Therefore, compensation for the loss of wet woodland, a priority habitat is still required as per the previous consultation response.

A condition requiring the planting of the requisite units of broadleaved woodland, to compensate for the loss of wet woodland units should be attached to any permission, if it is considered that like for like compensation has been demonstrated as not reasonably possible to deliver.

WATERCOURSE HABITAT
In the e-mail from WSP dated 13 October 2023 information was provided on watercourse mitigation. This is to be provided within the scheme by way of reedbed and marginal planting in the flood storage area south-east of Alkmund Park Wood as well as riparian habitat creation including wet grassland seeding along the cut-off ditch which feeds into the flood storage area.

This is considered acceptable to mitigate for the loss of watercourse habitat, which is unavoidable, due to rerouting the road to avoid loss of ancient woodland at Alkmund Park to the north.

A condition is recommended to ensure this is provided as part of the design and landscaping.

COMPENSATION STRATEGY

Paragraph 1.3.1 of the Compensation Strategy and Table 4-1 of 'SEI Appendix 3.B: Air Quality Impact Assessment on Designated Habitats' goes someway in explaining the rationale for identification of significance of effect on two ancient woodlands – Hortonlane Coppice and Woodcote Coppice. It is noted that they will be subject to lower levels of nitrogen deposition than the other sites within the Compensation Strategy (below 0.4 kg N/ha/yr though above 1% of the critical load for nitrogen deposition) and over a smaller extent of each site (ie 50% of Hortonlane and 11% of Woodcote), whereas for the other three sites included, impacts are modelled to cover the entirety of each site.

It is therefore acknowledged that these two ancient woodlands would be subject to a significance effect at a lower level than the other sites included in the compensation strategy.

In accordance with DMRB LA105 Air Quality (Highways England, 2019) air quality impacts upon these two sites are deemed to be insignificant for all but a 10m depth of Woodcote Coppice, closest to the road, however, it is not accepted that this conclusion can be drawn solely on the basis of the metric of "loss of one species" as detailed in LA 105 Air Quality. This is consistent with Natural England's approach when considering impacts upon internationally and nationally designated sites, as well as Shropshire Council's Guidance Note with regards to assessing the impacts of ammonia emitting developments.

Therefore, the applicant should provide further information on the other factors which have been taken into account to come to the conclusion that the scheme will not result in the deterioration of either of these two ancient woodlands, and therefore why they can be excluded from requiring mitigation or compensation. Factors such as the permanence and/or reversibility of the impact, the extent and magnitude of the effect and information on the nature and condition of the resource affected could be important factors to include.

20th October 2023

COMPENSATION STRATEGY
An updated Compensation Strategy has been submitted which now includes a proposed 1.9ha of broadleaved woodland planting to be delivered on Shropshire Council owned land to compensate for the slight adverse effects identified on the two ancient woodlands named Hortonlane Coppice and Woodcote Coppice as a result of the scheme (as detailed in Appendix 3.B: Air Quality Impact Assessment on Designated Habitats in SEI Jan 2023).

The area of proposed woodland compensation planting equates to the extent of significant air quality impacts modelled on these two ancient woodlands.

This compensation is considered suitable. These ancient woodlands would not be lost as a result of the proposed scheme and air quality effects would decline over time as the shift in fleet from petrol and diesel vehicles to

electric increases. In addition, there is much uncertainty about the ecological effects of air quality on woodlands, particularly small incremental changes. Both woodlands have been assessed as already experiencing significantly high background nitrogen deposition rates (40.9 kg N/ha/yr, 4.2 µg/m3). This indicates that any further potential changes as a result of air quality due to the proposed scheme would be unlikely to result in a reduction in species richness. The threshold of 0.4kg/N/ha/yr as suggested in Table 21 of NERC210, beyond which it is considered a habitat with background levels of only 5kg N/ha/yr would experience a reduction in species richness, are only exceeded for a small area of Woodcote Coppice.

The applicants have also committed to exploring opportunities for enhancement of these two woodlands which would be subject to landowner agreements. If it is possible to include adequate enhancements, such as those presented for Alkmund Park Wood, in the Final Compensation Strategy then the need for this compensatory planting would be reviewed.

A condition to secure a Final Compensation Strategy is required, as would be accompanying S106 agreements for any non-council owned land included in the Final Compensation Strategy.

Shropshire Wildlife–Trust - Object
The Wildlife Trusts see the climate and ecological emergencies as two inextricably linked crises. We cannot solve one crisis without tackling the other – nature's recovery is vital for tackling climate change. Thriving habitats can safely lock up vast amounts of carbon, while providing other vital benefits that help us adapt, such as flood prevention, clean water and improved health and wellbeing. But nature in the UK is in a damaged, fragmented state. It is much less able to limit or adapt to climate change, and declining habitats are less able to sequester and store carbon.

Nationally the Wildlife Trusts have three priority areas of action:

- The climate and ecological emergencies
- Creating and strengthening a Nature Recovery Network
- Addressing the disconnect between people and nature

The proposed scheme has a negative impact on all these themes and therefore we strongly object to the application.

The committee of the Shrewsbury Branch of Shropshire Wildlife Trust object to planning application 21/00924/EIA for the Shrewsbury North West Road.

There is a climate emergency and biodiversity crisis; Shropshire Council has declared a Climate Emergency and aims to reach net zero. We assess that the road is environmentally destructive, leading to further pressure on and fragmentation of habitat along the proposed route, passing near Hencot Pool SSSI and four local wildlife sites. Enclosing the town in a "ring of steel" will degrade wildlife habitat whist decreasing access for pedestrians and other active travel options. The PA is neither compatible nor consistent with the Council's declarations.

Our main aim is the protection and enhancement of wildlife habitat in and

around our beautiful town. Wildlife is in decline in this country, county and town. Many volunteer conservation groups are working tirelessly to reverse these declines and we are seeing more and more local people support and encourage our work. The habitat destruction and interference that this road will cause will more than wipe out the hard-won gains we have made in recent years.

Members of the Planning Committee should consider the legacy they will leave for future Salopians who should be able to observe and enjoy rich, diverse and flourishing local habitats for our precious wildlife. Some vague and distant notion of economic growth and disingenuous arguments about reducing traffic, pollution and congestion do not justify environmental destruction on this scale, particularly when there are other more effective, environmentally sound and sustainable means of achieving these objectives.

5.3.26 **The County Arborist – Objects**

17th May 2021

Review of the submitted documents and visits to parts of the application site raised a number of concerns on various points that are requested to be considered prior to determination of this application. In considering the arboricultural impacts of the proposed scheme, the question is raised as to whether it would be feasible to marginally amend the alignment of the road or alter the location of associated works at a number of specific locations, so as to avoid or reduce impacts on several important and notable trees and hedgerows. These issues are discussed in the remainder of this consultation response;

Veteran Trees

The NPPF defines ancient woodland and ancient or veteran trees as irreplaceable habitats. 37 veteran trees are identified within the Tree Survey Schedule to the Arboricultural Impact Assessment (AIA) (Appendix 8.20 to Chapter 8 [Biodiversity] of the Environmental Statement). 9 of these veteran trees are proposed to be removed: trees T2, 3, 48, 50, 52, 58, 65, 99 and 382, with a further 8 subject to potential root encroachment and damage: trees T5, 14, 16, 28, 42, 44, 61 and 165.

The Natural England and Forestry Commission (NE-FC) standing advice on ancient woodland and veteran trees provides guidance for decision makers who are responsible for major infrastructure projects such as road or rail schemes. The standing advice is clear that decisions on planning applications should be made in line with paragraph 180(c) of the NPPF, as follows:

‘*When determining planning applications, local planning authorities should apply the following principles:*

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable

compensation strategy exists;'

'Wholly exceptional reasons' are defined in the NPPF as: '*For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat*.'

The Tree Team asks whether the NWRR scheme qualifies as 'wholly exceptional reasons' and whether a suitable compensation strategy exists. Section 7.2.2 of the AIA (Landscape Mitigation) references the planting, amongst a variety of arboricultural features, of 16 individual trees specifically to compensate for the loss of the identified veteran trees. However, section 7.2.3 appears to contradict this by noting that 'trees planted to compensate for the removal of veteran trees cannot mitigate their loss nor would they reduce the associated adverse effects'. The NE-FC standing advice stresses that ancient woodland and ancient and veteran trees are irreplaceable. Consequently, 'proposed compensation measures for loss of or damage to these features should not be considered as part of an assessment of the merits of the development proposal'.

Ancient Woodland

As with veteran trees, for the purposes of the AIA, ancient woodland is regarded as part of a high value finite resource which is of national importance. Chapter 8 of the ES (Tables 8.6 and 8.7) identifies that the proposed scheme would involve works within 10 to 15 metres of the plantation on ancient woodland at Alkmund Park Wood (site W180 in the tree survey schedule). This is a minor incursion into the minimum buffer zone described in the NE-FC standing advice. However, as detailed within the AIA, no works are proposed within the root protection zone of trees that form part of the ancient woodland. Therefore, with the maintenance of an exclusion zone between the application boundary and woodland edge, there should be no significant direct physical effects of construction upon the woodland.

However, operational air quality is predicted to show potentially significant adverse effects for increased nitrogen deposition at Alkmund Park Wood, over approximately 2.6% of the total area of the woodland, as well as a further 37 individual veteran trees. Additional modelling is recommended, if possible, prior to determination of the application, to calculate the distance of buffer needed to separate the NWRR from ancient woodland and individual veteran trees (and other affected important sites and habitats), in order to avoid potentially damaging effects of increased nitrogen deposition once the scheme is in operation. Collective Impacts on Trees, Tree Groups and Wooded Areas

Discrepancies are noted in the figures quoted within the AIA and those given in Table 8.7 (Operational Impacts) of Chapter 8 (Biodiversity) to the ES, for overall length of hedgerows to be removed and total areas of tree groups and woodland to be felled. Clarification over the figures is requested accordingly.

The use of group and woodland area descriptions in the AIA belies the full scale of tree loss in terms of overall numbers, which is likely to be in the

order of at least a thousand trees. It also fails to record several notable trees (large and/or with veteran characteristics) that are 'hidden' within the group or woodland areas (notably W122 and G277). Analysis of the survey data shows there are 27 trees identified for removal that are > 90cm diameter at breast height (dbh) and as such likely to be at least 100 years old or more. 17 of these have a d–h of 100 - 150cm and as such may well be o– the 200 - 250year-old age range. Three trees to be felled have a dbh of >150cm, suggesting they may well be over 300 years old. The largest tree to be felled, T58 has a dbh of 221cm, which suggests it might be 500 years old or more.

Hedgerows

The submitted Hedgerow Survey Report (Appendix 8.3 to Chapter 8 of the ES) does not include survey details for the hedgerows west of the B4380 Holyhead Road, as they were previously surveyed as part of the Oxon Link Road (OLR) Legacy Scheme. This is considered to be an omission within the ES and it is recommended that the hedge survey for the OLR should be incorporated within the current application, to present a complete picture of the hedgerows within the study area for the whole NWRR.

A further deficiency in the hedgerow survey is that only the landscape and wildlife criteria within the Hedgerows Regulations were used to determine 'importance'. Other criteria relating to the historic and archaeological values of the hedgerows should also have been considered, in order to gain a full understanding of the quality and 'importance' of the hedgerows potentially affected by the scheme. The historic value of hedgerows is important in the context of ecological continuity and connectivity, particularly where they contain veteran and other notable trees. It is therefore recommended that all hedgerows within the study area be assessed to determine their importance under the historic criteria of the Hedgerows Regulations, as well as the landscape and wildlife criteria.

Furthermore, there is an apparent contradiction within the findings of the hedgerow assessment, whereby section 5.7.1 of the AIA identifies 70 of the 71 recorded hedgerows as being of 'low quality', in accordance with the classification system used in BS5837: 2012. (It should be noted that this system of classification was developed primarily for assessing trees in relation to development sites and as such will generally accord a low value to managed hedgerows). Yet the results of the current Hedgerow Survey Report and that of the OLR Legacy Scheme show that 19 hedgerows qualify as 'important' under the landscape and wildlife related criteria of the Hedgerows Regulations.

It is considered that, by classing 70 of the hedgerows as 'low quality' and failing to consider their historic value, the AIA undervalues the importance of the existing hedgerow network.

Landscape Considerations

The review of the submitted Landscape and Visual Impact Assessment (LVIA) commissioned by Shropshire Council and carried out by ESP Environmental Ltd (March 2021), raises a concern that some assessments of effects of the NWRR scheme on landscape character are understated, and that as a result the potential exists for additional significant adverse

effects.

With regard to Local Landscape Character Areas 1A: Bicton Heath Estate Farmlands (west of the River Severn) and 1B: Bomere Heath Estate Farmlands (east of the River Severn), Section 7.5 of the ESP report states *'given that the narration accompanying the judgements on magnitude for both LLCAs refers to loss, change or damage to multiple landscape elements (field structure, mature hedgerows and trees, woodland and characteristic topography) and that the effects are permanent, irreversible and long term we consider that this assessment of magnitude is under stated and that a judgement of Moderate adverse is more appropriate. A Moderate adverse level of magnitude is described in the LVIA methodology as;*

• *Partial loss or noticeable damage to existing landscape character or distinctive features or elements; and/or*

• *addition of new uncharacteristic, noticeable features or elements (i.e. road infrastructure).'*

The impact is heightened by the long delay between removal of existing trees and hedgerow features and establishment and growth of new landscape planting, which in the case of woodlands may take many decades to reach a reasonable level of compensation in terms of contribution to the landscape, as well as other ecological and environmental values.

Whilst tree and hedgerow impacts and losses occur along the full length of the development, the greatest impact in arboricultural terms is to the west of the River Severn. The section of land between the Churncote Roundabout and the River Severn at Shelton Rough is particularly valuable, in that it retains historic parkland characteristics comprising several veteran and other notable trees connected by a network of long-established hedgerows. 30 individual trees of high and moderate quality in this section of the scheme, including 5 veterans, have been identified for removal. We therefore recommend that opportunity be sought to further refine the proposed alignment of the road and the location of certain ancillary works, in order to reduce where feasible the scale of tree loss, particularly in this section of the NWRR.

<u>Biodiversity Net Gain</u>

Section 174 of the NPPF states: *'Planning policies and decisions should contribute to and enhance the natural and local environment by: …d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*'

Appendix 8.22 and Annex D of the ES deal with the subject of net gain for biodiversity, considering the existing baseline and post-development biodiversity values, taking account of construction and operational impacts and mitigation (landscape creation). The report concludes that whilst the scheme results in overall net gains for 'non-irreplaceable habitat units' and 'linear hedgerow units', there will be a net loss of 'linear river feature units'.

In addition to these quantitative outcomes, there will also be qualitative losses of lowland mixed broadleaf woodland and wet woodland HPI that cannot be compensated within the proposed landscape planting for the development. More importantly, the scheme will also result in the loss of irreplaceable habitats (8 veteran trees), meaning that it cannot achieve scheme wide BNG. As such, the proposed scheme does not appear to fully comply with 174 (d) of the NPPF.

Road Realignment

Chapter 4 of the ES (Consideration of Alternatives) explains how the broad route of the NWRR was chosen. Table 4.2 presents a description of the design alternatives considered as part of the evolution of the preferred route. With regard to trees, it states that *'the design of the Proposed Scheme has been altered in certain sections in order to retain as many trees as possible, with the focus being on the retention of ancient and veteran trees which are considered irreplaceable habitat.'* The table goes on to identify 5 specific instances where the design has been adapted, including at chainage 1240 (tree T69); at chainage 3490 (realignment north of Willow Pool to avoid ancient, veteran and other notable trees); chainage 3900 (to avoid the trees west of Berwick roundabout); and around chainage 4500 (redesign for avoidance of woodland areas G170 and W180 [ancient woodland site]).

However, as has been shown in the foregoing items in this consultation response, considerable impacts upon arboricultural features remain. Analysis of the plans and layout identifies the loss of several trees, groups of trees and areas of woodland of moderate or high quality, and several sections of hedgerow that potentially could be avoided or reduced through changes in site layout and route alignment, or adopting design solutions which incorporate rather than remove the trees. This includes: T2, T3, UST6, USG7, T17 (TPO), UST18, T24, T30, T31, T34, T50 and southern part of G219, T58, T59, T62, T63, T64, T65, T66, T67, T68, T99 (TPO), part of W122, T117, T118, T121, G124, G127, part of G128, T230, part of H240, T243, T244, parts of hedges H257 and 265, part of H270, T276, G277, part of G321, T325, T326, T327, T380 and T382 (TPO).

In addition to direct tree losses, there are several other trees, groups of trees and hedgerows impacted by the development and ancillary works, many of which are potentially avoidable through revisions of the site layout and good design: including USG1, USG3, USG4, T5, T12, UST21, T35, T61, T69, T78, T80, parts of hedges H145, 156, and 159, T165, T310, part of G321 and G373.

Shropshire Council Tree Team would welcome the opportunity to discuss these points of detail and potential design solutions with the scheme architects and specialist advisors, with the aim of avoiding and reducing impacts on irreplaceable veteran trees and ancient woodland and other important trees and hedgerows. Where revisions of the alignment or design are not possible, or not feasible, it is recommend that the reasons be explained and stated within the AIA or other relevant part(s) of the application.

15th October 2021

This current response is made in light of supplementary and amended documents and drawings that have been submitted by the applicant since the Tree Team's previous consultation response (10th May 2021), but it should be taken in conjunction with that previous response, where the issues addressed in that response remain unaffected by the subsequently submitted material.

Amendments to arboricultural details have been submitted in the Supplementary Environmental Statement Appendix 8.20 Arboricultural Report Addendum (hereafter referred to as the ARA). Amendments addressed within the ARA include:

e. additional survey data for a total of 59 individual trees within groups G197 and G214 and 25 trees within woodland W209, all of which lie to the south of the proposed new roundabout on Holyhead Road at Shelton Rough. Tree Team response: the amended details reveal a smaller amount of individual tree and woodland felling from G197, G214 and W20, which is welcomed. However, it is countered by the fact that the ARA includes a number of previously un-surveyed trees and tree groups along the north and south sides of Shelton Lane, several of which are identified for removal. Thus, the scheme will entail the removal of 2 high quality (category A) trees, 6 moderate quality (category B) trees, 2 moderate quality tree groups and three low quality (category C) tree groups. This additional tree felling is unwelcome, although it is recognised that mitigation may be provided in the fullness of time through new tree planting at the location.
f. Additional survey data for 24 of the previously un-surveyed trees and 10 previously un-surveyed tree groups recorded in the initial tree report. Tree Team response: the ARA confirms that three of the previously un-surveyed trees to be removed are moderate quality (category 'B'), with the remainder being low quality. Aside from complete removal, the initial impact assessment identified a further 8 un-surveyed trees and 3 un-surveyed tree groups that were likely to suffer adverse impacts during construction. The ARA has confirmed that there will be no or only negligible adverse effects on the 3 high quality (category A) and 2 moderate quality (category B) features surveyed. The knowledge and clarity afforded by the inspection of previously un-surveyed features is welcomed. However, it is noted that a number of features remain un-surveyed following the additional field survey undertaken for the ARA. It is recommended the further details and information requested for trees UST6, 7 and 33 and tree group USG2 be provided prior to determination of this application.
g. Additional survey data for a further 42 trees, 9 tree groups and 4 hedges, included either due to take account of changes within the application boundary (8 trees north-east of Shelton Rough), or because certain trees within groups warrant individual survey (due to substantial differences in size or quality), or because their recording is considered to help a more detailed understanding of the baseline resource and the potential for future impacts. Tree Team response: The additional survey information is welcomed; in that it builds a slightly fuller picture of the tree and hedgerow resource along the route of the NWRR. However, it

is considered that this information does not make an appreciable difference to the consideration or understanding of the overall arboricultural impacts of the proposed scheme.

h. the reporting of new impacts or variations to previously identified impacts resulting from changes in design and the application site boundary, additional design information or new survey data. Tree Team response: the avoidance of damage to veteran tree T42 and other category 'A' trees by realignment of the haulage route to the north of the NWRR where it passes Willow Pool is welcomed, as is the avoidance of encroachment into the RPA of veteran trees T16 at Hencott culvert and T165 East of Berwick Road. It is noted that further assessment is required and mitigation measures to be developed in relation to category 'A' trees T47 and T48 on the eastern bank of the River Severn, to accommodate the base of the crane to be used in construction of the viaduct over the river. Other mitigation measures described in section 3.4 of the ARA are supported, relating to trees along Shelton Lane and 2 high quality (category A) trees (T1004 and T1005) alongside the access road east of Berwick Road. Ii is recommended that these trees and measures be incorporated within the APP and the Arboricultural Method Statement (Annex C to Appendix 8.20: Arboricultural Impact Assessment, February 2021).

The foregoing part of this response relates to amendments and supplementary details at a number of specific points of the proposed NWRR scheme. However, this represents only a small part of the overall picture and the Tree Team's previous consultation response identified several other locations where, from a purely arboricultural perspective, apparently relatively minor alterations in the design or alignment of the NWRR and its ancillary works could potentially avoid the loss of, or damaging impacts upon, many trees, tree groups, areas of woodland and hedges, including veteran and other high quality trees and arboricultural features. The section of the NWRR between Churncote roundabout and the River Severn at Shelton Rough is of particular concern in this regard. The Shropshire Council Tree Team was not consulted on possible amendments to the design or layout of the scheme and no explanation has been submitted as to why alternative options are not feasible at those identified locations.

Aside from the amendments and further details provided in the ARA, there remain some overarching issues raised in the Tree Team's previous consultation comments, these being Veteran Trees and Biodiversity Net Gain. Finally, amongst the plethora of documents and drawings submitted with this application, the Tree Team is not aware of any information that clearly summarises the various economic, social and environmental benefits and adverse impacts of the scheme in a readily accessible and understandable format, to assist in the weighing of the balance that Shropshire Council Planning Committee must undertake in determining this application. From an arboricultural perspective, we suggest that applying a monetary value to the important trees to be lost would more readily allow comparison with the costs of, for example, avoiding their loss through redesign of the scheme, or works necessary to mitigate or compensate for their loss (whilst recognising that the loss of veteran trees cannot be

compensated). One tool that can be used for such a purpose is CAVAT (Capital Asset Valuation for Amenity Trees), which provides a compensation value for damage to or loss of amenity trees. Such an approach could be used to assist in the determination of this application.

10th September 2022
This memorandum is written in response to the document titled Appendix K 'Arboricultural Further Information', which has been prepared on behalf of the applicants as an appendix to the Supplementary Environmental Information, as part of an update to the Shrewsbury North-West Relief Road (NWRR) planning application. Appendix K is a technical note which has been prepared to address queries related to arboricultural matters raised in response to the planning application, notably by the Woodland Trust and Shropshire Council Tree Team.

It is noted that the third paragraph in the Introduction to Appendix K states that there is no objection to the NWRR from the Arboricultural Officer of SC. Whilst it is correct that previous consultation responses have not explicitly stated an objection in principle to the NWRR, numerous issues of concern have been raised, both in points of arboricultural principle and points of arboricultural detail. Some areas of concern have subsequently been addressed by the applicant either fully or in part, for example through additional survey and evaluation of previously unsurveyed trees, groups of trees, hedges and woodland and minor amendments to the layout and design of the scheme. Other areas have not or cannot yet be addressed. Chief amongst these is the loss of 11 identified veteran trees and impacts upon others to be retained, the potential operational impacts of the NWRR on the ancient woodland site of Alkmund Park Wood (and Hencott Pool Ramsar site), and the lack of overall net gain for biodiversity of the scheme. As stated in the response of 14th October 2021, these detrimental aspects of the NWRR (and other unmitigated or uncompensated arboricultural impacts) are considered contrary to paragraphs 180(c) and 174(d) of the NPPF and SC Local Plan Core Policies CS6 (Sustainable Development) and CS17 (Environmental Networks) and SAMDev Policies MD2 (Sustainable Design) and MD12 (The Natural Environment). As such, the Tree Team objects on arboricultural grounds to these impacts of the NWRR (noting, that as stated in Appendix K, discussions are ongoing with Natural England and further details are to be provided about proposals for reducing the impacts of nitrogen deposition on Alkmund Park Wood and Hencott Pool).

Appendix K addresses the potential use of CAVAT (Capital Asset Valuation of Amenity Trees), concluding that its use would not be necessary or appropriate, given that it was developed primarily for use as a tool to assist local authorities in determining a suitable amount of compensation in cases where publicly owned trees (primarily within the urban realm as opposed to rural environments) are damaged or removed without consent. In response, the point was not necessarily to use CAVAT to calculate a specific value as a basis for compensation for the trees to be lost, but to use it as a robust, objective method to ascribe a monetary value that would allow more ready consideration of trees alongside other capital costs of the development. The hope was that this might help in weighing the planning balance when

considering, for example, the cost of realigning (if feasible) the route of the road to avoid certain points of tree or woodland loss.

Irrespective of the use of CAVAT or another recognised tree valuation system, Appendix K discusses in detail the road alignment and in Table 1 lists 'high' value arboricultural feature to be felled to deliver the NWRR, with a justification of why the road cannot be realigned to avoid felling that feature. The nine bullet points within Appendix K that describe the route of the scheme at key stages from Churncote Roundabout at its western end to Ellesmere Road at its eastern end are welcomed, describing as they do the rationale for aligning the scheme as it has been and the constraints that restrict or prevent its realignment at these sections. The explanations offered in Table 1 are appreciated and it is noted and welcomed that at detailed design stage the scheme will be reviewed to save if possible 7 high value (category ‘A’) trees, identified as tree numbers 28, 30, 31, 34, 44, 47 and 48. Three of these trees (numbers 28, 44 and 48) are extremely high value veteran trees and their retention would be particularly desirable.

It is pointed out that in dealing only with high value (category ‘A’) features, Table 1 avoids describing the features of moderate quality (category ‘B’), which Shropshire Council would normally seek to retain where possible within a development scheme, in accordance with British Standard 5837: 2012. It should be noted that in addition to the category ‘A’ features described, the NWRR scheme will also involve the removal of 34 category ‘B’ trees and 7 tree groups, and the partial clearance of a further 11 category ‘B’ tree groups and 2 category ‘B’ wooded areas. The arboricultural, ecological and landscape impacts of the collective tree, woodland and hedgerow loss of this scheme have been addressed in previous consultation responses.

A final request is made to consider a minor adjustment in the sweep of the road alignment between the Clayton Way overpass and the entrance to the Oxon Hall Touring Park, to potentially allow retention of two category ‘A’ trees (including veteran tree T65) and a category ‘B’ tree out of a cluster of 7 high and moderate value trees scheduled to be removed from this area. If, despite objection on identified arboricultural grounds, it is decided to move to determine this application favourably, the Tree Team requests the opportunity to recommend suitable tree protection and landscaping conditions to be applied, should planning permission be granted.

4th May 2023

The purpose of this current response is to comment upon arboricultural aspects relating to various additional documents and drawings submitted by the applicant since the Tree Team’s last previous consultation response was made. The additional information has been provided by the applicant to address various issues raised by the Council’s Tree and Ecology Teams and others during the consultation process. Reference is made to various Supplementary Environmental Information (SEI) documents and drawings within Chapter 1 (Introduction) and Chapter 3 (Biodiversity) and their Appendixes, registered during January and February 2023. Issues covered

include additional bat survey and mitigation strategy, additional arboricultural information, air quality and lichen survey information, Alkmund Wood, Shelton Rough and Oxon Pool condition assessment and a Draft Compensation Strategy for Ancient Woodland, Veteran Trees and Local Wildlife Sites.

Appendix 3.C (Arboriculture Report) assesses and reports any changes to previously reported arboricultural impacts of the proposed development arising because of design changes to the scheme, as summarised in Section 2 of SEI Chapter 1. It also contains amended Arboricultural Removals and Protection Plans, which supersede previous iterations. With regard to previously un-surveyed trees and tree groups, it is regrettable that category''A' oak tree T1202 (formerly UST 6) has been confirmed as being removed, but it is noted and welcomed that group G1201(formerly USG 2) is no longer to be removed and can instead be retained. Of the remaining previously un-surveyed trees and tree groups, which have been found to include 2 veteran trees, the Tree Team notes and welcomes that all can be retained, and damage to them avoided during construction.

The Tree Team notes that further survey and detailed design work is still required in relation to siting and operation of the crane to be used during construction of the River Severn viaduct, which could in the worst case entail the loss of veteran oak tree T48 and another category ’A' oak tree, T47. Similarly, further details are required in relation to construction of the access road serving infiltration basin 9, west of the proposed Berwick Road roundabout, where it passes between two category ‘A' trees T36 and T37, the latter being a veteran tree. Further survey and assessment are also required to provide more details and quantify the additional loss of woodland required to accommodate an access track through part of W122 north of Berwick Road roundabout, and construction of infiltration basin 9, where it impinges into the edge of W130. The Tree Team considers that all necessary survey work and impact assessment should be undertaken prior to determination of this application if possible, so as to allow full understanding of the arboricultural impacts and their mitigation.

Appendices 1G (Bat Tree Report) and 1H (Bat Mitigation Strategy) describe the additional bat survey work undertaken on trees to be removed which have moderate or high potential to support roosting bats, and a tree felling protocol to remove trees of known roosts and a precautionary working method for potential roost trees. The Tree Team supports the use of these measures during tree works on site, as well as the mitigation and compensation measures identified in Appendix 1.H and shown on Appendix 1.U, Bat Mitigation Plans.

Appendix 1.K (Arboricultural Further Information) has been prepared specifically to address arboricultural queries raised by the Tree Team and the Woodland Trust during the consultation period. In Section 2 and Table 2.1 it explains the constraints that dictate the alignment of the NWRR and why the scheme cannot be adjusted to avoid each of the 36 high value category ‘A’ trees and part of 1 high value woodland (W122 at Berwick Road roundabout) to be felled. In particular, a detailed explanation is given as to why it is not possible to slightly adjust the alignment immediately west

of Clayton Way overpass, so as to avoid a cluster of high value trees at that location. However, the Tree Team notes and welcomes that further consideration will be given at the detailed design stage to works in the vicinity of veteran trees T28, T44 and T48 and category 'A' tree T47 to minimise impacts and possibly allow their retention. If this could be achieved, the loss of irreplaceable veteran trees as a result of the scheme could be reduced from 11 to 8.

Concerns raised by the Tree Team, the Ecology Team, the Woodland Trust, Shropshire Wildlife Trust and others regarding increased nitrogen deposition and ammonia concentrations on designated sites, as well as a further 41 veteran trees, have been addressed more fully in Appendix 3.B and Appendix 3.L, discussed as follows.

Appendix 3.B (Air Quality Impact Assessment on Designated Habitats) reports on updated monitoring and modelling of air quality impacts on designated habitats, including Local Nature Reserves, Local Wildlife Sites, ancient woodland and 52 veteran trees (excluding the eight that are scheduled to be removed to implement the development). The results show that current background loads of nitrogen deposition and levels of ammonia exceed critical levels to a considerable degree, across all studied habitats. The report concludes that in the case of Alkmund Park Wood, it is likely that agricultural sources of nitrogen and ammonia, including those associated with the extensive pheasant rearing, would be considerable and likely far greater than those arising from the NWRR, which would be unlikely to adversely affect site integrity to a perceptible degree. A similar conclusion regarding the effects of additional nitrogen deposition and ammonia arising from the NWRR is reached for other ancient woodland sites at Hortonlane Coppice and Woodcote Coppice, and Local Wildlife Sites including Shelton Rough and Oxon Pool. Lichen surveys of ancient woodland sites (Appendix 3M) and veteran trees (Appendix 3O) were carried out to provide a more detailed baseline to inform Appendix 3B. Of the veteran trees studied, 41 would be adversely impacted by increases more than 1% above the critical threshold load or level for both nitrogen deposition and ammonia concentrations, whilst 10 were modelled to benefit from a decrease in load or level. Overall, it is considered that a minor adverse level of impact, resulting in a moderate adverse effect, is the most likely outcome for veteran trees as a collective resource.

Appendix 3.L (Alkmund Wood, Oxon Pool and Shelton Rough Condition Assessment Survey) describes the existing condition and potential for future enhancement at these three ancient woodland sites. As a result of ecological field surveys, Alkmund Park Wood and Oxon Pool were found to be in moderate overall condition and Shelton Rough was found to be in good overall condition. Opportunities for enhancement identified during the site surveys have been used to inform the compensation and mitigation measures presented in Appendix 3.E.

Appendix 3.E (Draft Compensation Strategy) describes the mitigation and compensation measures for predicted likely impacts on ancient woodland, veteran trees and Local Wildlife Sites, noting that para.180(c) of the NPPF

requires that: *"development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists;"*

Appendix 3.E does not deal with whether the proposed development meets the criteria for 'wholly exceptional reasons', this being addressed in other submitted documents. For the purposes of this consultation response, the Tree Team is limiting its comment as to whether the submitted Draft Strategy forms an acceptable basis for a 'suitable compensation strategy'.

Table 1.1 of Appendix 3.E identifies 8 or 9 veteran trees requiring removal (depending whether T48 can be retained as discussed above), a further 8 to be retained but which will be subject to a degree of root loss due to construction activity within the root protection area (RPA), and a further 41 that will be subject to adverse impacts on air quality. Similarly, ancient woodland sites of Alkmund Park Wood, Hortonlane Coppice and Woodcote Coppice and Shelton Rough Local Wildlife Site (LWS) and Oxon Pool LWS will also be subject to adverse impacts on air quality over varying proportions of the sites.

Appendix 3.E describes a variety of opportunities for enhancement of site features, prioritised where feasible to address the features of poorest condition at each site. The strategy proposes a 'suitably worded planning agreement' in the form of a Unilateral Undertaking by the landowner to carry out agreed compensation measures. Should the identified habitat improvement measures not be considered suitable, 'a fund would be allocated to compensate for this'.

Although the Tree Team supports the principle of habitat improvement measures being funded and carried out to address identified site management needs and opportunities, we raise a number of questions about points of detail, including for example the mechanism and timescale for creating Unilateral Undertakings, the nature and amount of the compensation fund to be created as a 'back up' where Unilateral Undertakings cannot be agreed; who administers this fund and how are alternative beneficiary sites proposed and selected, and details for monitoring of agreements and ensuring delivery and compliance.

The Tree Team supports the proposed use of silvicultural specialists to carry out survey work at Hortonlane Coppice and Woodcote Coppice and to confirm enhancement opportunities and management proposals at these and Alkmund Park Wood ancient woodland sites. Similarly, the Tree Team recommends that suitably qualified arborists, with knowledge and experience of ancient or veteran trees, should be employed to survey and assess and prescribe specific enhancement opportunities as appropriate for each individual veteran tree affected by the NWRR.

Table 5.1 of Appendix 3.E summarises the amounts of on-site habitats removed to enable the development and those to be planted or created as part of the approved landscaping works. With regard to woodland on site, a total of 3.11ha is proposed to be removed, but after replacement planting

the scheme will result in a small net increase (2.83ha) in the 'other woodland; broadleaved' category. However, this is offset by small decreases in the 'lowland mixed deciduous woodland', 'wet woodland' and 'other woodland; mixed' categories of -1.06ha, -0.62ha and -0.13ha respectively, making a combined loss of 1.81ha. The net result, therefore, is that the scheme overall will result in a very modest increase in the amount of broadleaved woodland of just over 1ha.

Aside from the purely numeric areas of woodland, number of trees and lengths of hedgerow lost and planted, one must also consider that the trees and woodland being removed are in many cases semi-mature, mature, over-mature or veteran, whilst those being replanted are only a year or two old. Equally, historic hedgerows can provide ecological connectivity and continuity that new hedge planting does not replicate. New trees, woodland and hedges may take decades to reach the stage where they make a significant contribution to landscape, wildlife and ecosystem services. On that basis, the Tree Team is of the opinion that there should be a much greater provision of compensatory woodland to be planted, than just over the 1ha net increase as currently proposed. If for valid reasons a greater amount of woodland cannot be created on-site, then the Tree Team would recommend securing significant new woodland creation off site, perhaps through a Unilateral Undertaking as proposed for other habitat enhancement opportunities within the Draft Compensation Strategy. Compulsory purchase might be another route for securing suitable land for woodland creation.

The loss of veteran trees is contrary to paragraph 180(c) of the NPPF and cannot be supported by the Tree Team, but it is noted that the Draft Strategy proposes replanting 6 standard trees at suitable locations on site for every veteran removed, in the hope that the new trees may over the course of many decades or even centuries develop into veteran trees themselves. The Tree Team supports the suggested ratio of replacement planting but notes that only a small proportion of trees ever survive to reach veteran status and on balance it is unlikely that any of the new planting will become veterans in the future.

It must be borne in mind that, as stated in the NE/FC standing advice: '*Ancient woodland, ancient trees and veteran trees are irreplaceable. Therefore, you* [the Local Planning Authority] *should not consider proposed compensation measures as part of your assessment of the merits of the development proposal.'*

To summarise and conclude, the Tree Team objects on arboricultural grounds to the loss of irreplaceable veteran trees to enable construction of the NWRR. The Tree Team support the mitigation and compensation measures proposed but suggest that a greater amount of compensatory woodland planting should be provided, given the medium – long term impacts of the scheme, through loss of the existing established trees, woodland and hedgerows. There are questions the team has raised at this stage as to the mechanisms by which the habitat enhancement measures identified in the Draft Compensation Strategy will be guaranteed and delivered, via Unilateral Undertakings or otherwise. The Strategy at this

stage is a draft with many enhancement proposals but no guarantees as to owner participation. The Tree Team considers that all possible effort should be made to identify and confirm suitable enhancement measures for retained veteran trees and ancient woodland and other designated sites, and to secure landowners' commitment to implementing them, prior to determination of this application. Further investigation, design details and method statements are required in relation to specific areas of construction activity around footings for the crane at the River Severn viaduct, creation of the access track through woodland W122 north of Berwick Road roundabout, and construction of Infiltration Basin 9 and its maintenance road. It is recommend this additional information and answers to questions raised about delivery of the Compensation Strategy should be provided prior to determination if possible.

Tree protection and landscaping conditions are recommended (assuming the Ecology Team will make recommendations for suitable conditions relating to preparation of habitat creation and habitat management plans, in order to deliver the final approved Compensation Strategy).

17th October 2023
Whilst the County Arborist maintains their objection towards the loss of veteran trees which are considered irreplaceable, the following comments on the proposed compensation strategy put forward by the applicant have been offered.

The Draft Strategy proposes compensation measures for four designated sites and habitats (the ancient woodland site of Alkmund Park Wood, irreplaceable veteran trees, and Oxon Pool and Shelton Rough Local Wildlife Sites). The proposed measures are described in Sections 2 to 4 and summarised in Table 4.1 of the Draft Strategy. Section 6.1.1 of the Conclusions stipulates that 'The measures outlined in this document will be included within the Final Compensation Strategy...', thereby providing assurance that they will be taken up, rather than merely being options that could be dropped at a later stage, should the applicant or other landowner not wish to pursue them. It is understood that colleagues within the Shropshire Council Ecology Team have commented further on the loss of wet woodland priority habitat and air quality impacts on two areas of ancient woodland not included within the Draft Compensation Strategy (Hortonlane Coppice and Woodcote Coppice), so no reference is made to these features here. Other compensation measures are summarised as follows:

• A series of prioritised management options for Alkmund Park Wood, to be included within a woodland management plan for the site and planting of a buffer strip of woodland edge along its southern boundary, totalling approximately 1ha.
• Bespoke management and ground condition enhancement measures for 19 veteran trees within the ownership of 'Landowners 1 or 2' (Annex C of the Draft Strategy), to be included within a veteran tree management plan.
• Professional arboricultural survey and assessment of a further 7 veteran trees located on land around Hencott Pool to be withdrawn from intensive agricultural activity. Bespoke enhancement measures will be proposed for

these 7 trees and included within Annex C of the Draft Strategy.
• Enhancement opportunities are also to be explored for a further 3 veteran trees located on land outside of the ownership of Landowner 1 or 2 that will be subject to temporary land take during the 24-month construction period.
• Planting and management of 84 standard trees at 'parkland' locations that will provide the best chance of reaching veteran status. This comprises 54 trees to be planted at a 6:1 ratio to compensate for the loss of 9 (worst case) veteran trees within the footprint of the NWRR scheme; and 30 trees to be planted to compensate for modelled air quality impacts on 14 veteran trees outside the ownership of Landowner 1 or 2 that are not to be included within Annex C of the Draft Strategy.
• A series of prioritised management options for Shelton Rough and Oxon Pool Local Wildlife Sites, in the case of Oxon Pool to be included within a woodland management plan prepared for the site.
• In addition to the foregoing, on site woodland creation will result in a net increase of broadleaf woodland habitat of 1.77ha, nearly 21% more than the existing amount. (This figure has increased from previous versions of the draft Strategy due to the inclusion of shelter belt planting around Hencott Pool).

The Tree Team supports the woodland compensation measures proposed for Alkmund Park Wood, Oxon Pool and Shelton Rough. The preparation of robust, evidence-based plans for sustainable woodland management, and recommend that they be prepared in compliance with the current version of the UK Forestry Standard (5th Edition, October 2023) is supported. It is noted that the suite of measures to be implemented, as identified within the Draft Strategy, remain to be fully quantified and costed as part of the preparation of the Final Compensation Strategy.

With regard to the veteran tree compensation measures, the Tree Team supports the principles and suite of options for enhancement specified in the Draft Strategy, and the preparation of a bespoke veteran tree management plan covering an 80-year time period, including periodic specialist monitoring. The bespoke prescriptions identified in Annex C and the expansion of this to include an additional 7 veteran trees around Hencott Pool is supported. It is noted that the suite of measures to be implemented, as identified within the Draft Strategy, remain to be fully quantified and costed as part of the preparation of the Final Compensation Strategy.

The planting of an additional 30 standard 'parkland' style trees to compensate for the otherwise unmitigated air quality impacts on 14 veteran trees is welcome, but no explanation has been provided as to why tree condition assessments and bespoke enhancement measures for those 14 impacted trees could not or should not be undertaken as for the 19 veteran trees (and 7 additional ones at Hencott Pool) identified in Annex B and Annex C of the Draft Strategy. It is recommended therefore that the applicant provides further information and explanation as to why those 14 veteran trees are excluded from the Strategy.

The planting of 54 standard 'parkland' style trees to compensate for the loss of 9 veteran trees is supported, and it is noted that these trees are to

be planted at locations that optimise their chance of reaching veteran status. However, the prospect of any of the new trees achieving veteran status is remote, as evidenced by considering the number of trees in the tree population at large and the number that ever become veterans. The ratio is unknown, it might be one in a hundred, one in a thousand, or an order of magnitude greater. Whatever the actual ratio, it is likely to be greater than the 6:1 replacement planting ratio offered in the Draft Compensation Strategy.

There is no national or local policy or guidance as to what constitutes a suitable amount of compensation for any given type or level of impact on ancient or veteran trees. Natural England and Forestry Commission standing advice (Gov.UK) states that ancient woodland and veteran trees are irreplaceable and proposed compensation measures should not be considered as part of a planning authority's assessment of the merits of a development proposal. It states also that 'compensation measures should be appropriate for the site and for the scale and nature of the impacts on it.' What constitutes a suitable compensation strategy must therefore be decided on a case by case basis and the question as to whether a 6:1 replacement planting ratio is appropriate should be considered during the determination of this application.

Should this application move to determination with an officer recommendation to grant permission, the appropriately worded conditions are required to secure tree protection and landscaping, noting that other pre-commencement conditions will be required to secure preparation and delivery of the Final Compensation Strategy to be established via a s106 agreement.

5.3.27 **Forestry Commission – Neutral**

As a Non-Ministerial Government Department, we provide no opinion supporting or objecting to an application. Rather we are including information on the potential impact that the proposed development would have on the ancient woodland.

Ancient woodlands are irreplaceable. They have great value because they have a long history of woodland cover, with many features remaining undisturbed. This applies equally to Ancient Semi Natural Woodland (ASNW) and Plantations on Ancient Woodland Sites (PAWS). It is Government policy to refuse development that will result in the loss or deterioration of irreplaceable habitats including ancient woodland, unless "there are wholly exceptional reasons, and a suitable compensation strategy exists" (NPPF para.180(c)). We also particularly refer you to further technical information set out in Natural England and Forestry Commission's Standing Advice on Ancient Woodland - plus supporting Assessment.

5.3.28 **Woodlands Trust - Objects**

The Woodland Trust objects to this proposal due to the direct loss of veteran trees, which are recognised as irreplaceable habitats in both national and local planning policy.

5.3.29 **Shropshire Friends of the Earth – Object**

Object on the grounds of Climate Change, Biodiversity, Loss of Green Spaces, Air Quality and Noise

5.4 **Public Representations**

5.4.1 The application has been widely publicised three times by site notices and local press notice. The first round of consultation was in March 2021 when the
application was submitted. The second round was in July 2021 after submission by the applicant of amended details and further information, with a third round taking place in February 2023.

5.4.2 Comments have been received from a range of interested parties including neighbouring residents and businesses within the general proximity of the application site, local action, interest and political groups and interested members of the public.

5.4.3 The application has attracted a significant number of representations from the public. The representations are summarised below and are identified as either a material consideration in relation to the consideration of the planning application or as non-material considerations (i.e., these should not be taken into account as they are not planning related matters).

5.4.4 Due to the nature of the proposal, more than 5,500 public representations were received. Circa 5,300 objection comments and circa 230 support comments have been received throughout the various rounds of consultation on this application. It is not possible to outline each comment individually and therefore all comments have been assessed, with all material planning considerations being extracted from them and listed in the following section. This section has been split, firstly outlining reasons that support the application then those that object to the application and finally a section of frequent comments made that are not material planning consideration. Each section has been divided by theme. This section includes assessment of all comments received in both formal consultations and any other representations made since the opening of the application.

5.5 **Support**

5.5.1 ***Transport***

-The road will reduce congestion within Shrewsbury Town Centre which has been a long-term strategic aim,
-The development would reduce individual journeys travel times across and around Shrewsbury,
-The additional road will strengthen the road networks resilience for the future,
- Reduced congestion in the town centre will, by consequence, improve public transport reliability,
-The proposal will allow greater opportunity to enhance the existing infrastructure of Shrewsbury Road network to the benefit of all users

-The road will reduce rat running on local streets, improving their safety
-Will open opportunities for pedestrianisation and other active travel improvements on roads which will now have less congestion
-Shrewsbury will become a more connected town with easier travel from east to west on the northern side

5.5.2 ***Economic***

-The road will provide business opportunities through greater connectivity and reliability on Shrewsbury's Road Network, making Shrewsbury a more attractive place to invest,
-The road will provide the basis for further economic growth within Shropshire.

5.5.3 ***Environment***

-Reduction of congestion in the Town will improve air quality and health further improving the overall quality of the town centre.

5.5.4 Other

-The development will achieve a longstanding aim for Shropshire Council

5.6 **Objections**

5.6.1. **Planning Policy**

- The application conflicts with a number of policies in the adopted development plan.
- The application conflicts with national planning guidance as set out in the National Planning Policy Framework (NPPF) as revised in 2021 and Planning Policy Guidance (PPGs).

5.6.2 **Transport**

-The proposal will result in induced traffic in the town centre where a lack of congestion will encourage more car trips and compound congestion,
-The NWRR will only relocate traffic flow, not reduce it and cause issues on other parts of the network,
-The road is an outdated solution,
-The need for the scheme and traffic problems is not well justified or evidenced when balanced against its impacts,
-The proposed pedestrian/cycle lanes adjacent to the route are potentially unsafe given the potential speeds of the road, crossing points are also poor in provision
-The submitted transport assessments and amendments only evidence a limited improvement in private car and bus journey times
-The proposed road is contrary to the local development plans that encourage and prioritise sustainable transport modes,
-The proposal impedes modal shift to other transports and does nothing to encourage not using the private car,
-The resilience of the network is unlikely to be increased significantly be the introduction of one road,
-The road will create its own congestion issues at each end, which will then need further investment to address. Therefore, it is a short-term solution only.

-There is no benefit to public transport because of this road
-The proposed road will not meet the aims outlined where its single carriageway is restrictive. It will mean the potential benefits outlined for the significant costs will not materialise and tips the balance against the scheme. Futureproofing should be considered.
-There is no need for the scheme, and it conflicts with the climate objectives of Shropshire Council,
-Omission of induced traffic in all transport calculations,
-Concerns that the current funding for public transport such as bus routes are limited and will be unable to cover or take advantage of the increased highway network.
- Traffic Modelling and assumptions are fundamentally flawed
- The application conflicts with policies in the existing Local Transport Plan.

5.6.3 **Environmental**

- The Environmental Statement submitted with the planning application fails to comply with the Environmental Impact Assessment Regulations 2017.
-The proposal will result in the loss of established habitats and irreparable reduction in the biodiversity profile of Shropshire and its countryside,
-The Environment Agency, Natural England and Shropshire Council Consultees have all identified the loss of woodland, ancient woodland and wetland habitats,
-The road will have an active carbon emission rate caused by use, but also a significant carbon impact as a result of construction, worsening Shropshire's Air Quality,
-The road has water pollution and high flood risk which would cause harmful runoff into the nearby RAMSAR site
-The construction in a ground water source protection zone will cause a reduction in the water quality,
-Harm will be caused to the local habitat of the River Severn and its biodiversity,
-Concern is raised regarding the validity of the biodiversity net gain assessment and whether gains are being manipulated to appear greater than they are in actuality.
- Loss of veteran trees (irreplacable habitat Para 180c NPPF) and priority habitat (wet woodland).
- The development will result in increased carbon emissions which is contrary to Shropshire own climate policy and wider aims,
-The development will result in the loss of ancient woodland that is irreplaceable where there are no justified special circumstances which allow this,
-The mass concreting of the rural countryside will reduce water penetration and by consequence increase flood risk to the town by funnelling it straight into the River Severn,
-The environmental cost will significantly outweigh any highway benefits,
- The applicants assessment of the risk of constructing the NWRR for the Shelton public water supply is flawed in a number of important respects.
- The application, if approved, will have the effect of undermining legally binding national targets for significant reductions in carbon emissions and carbon neutrality.
- The application, if approved, will have the effect of undermining legally binding national targets and to protect the environment and enhance

biodiversity (The Environmental Targets (Biodiversity) (England) Regulations 2023).
- No Habitats Regulation Assessment (HRA) appears to have been undertaken for one of the potential land uses (woodland planting) that Shropshire Council has proposed for the proposed buffer strip around Hencott Pool SSSI in breach of the requirements of the Conservation of Habitats and Species Regulations 2017. No planning permission may be granted until an HRA has been undertaken. (This has been completed and agreed with NE)
- A Climate Change Position Statement should accompany this planning application, given concerns relating to the cumulative impacts of the scheme.
- The conceptual model of the local groundwater system that Shropshire Council/WSP has used to justify its approach to the risk assessment is fundamentally flawed leading them to discount important pathways that could allow contaminants to reach the public water supply.
- The risk assessment has not considered the possibility of a spillage of pesticides at the Holyhead roundabout. Such spillages are not uncommon and have the potential not only to force the drinking water supply out of action but also to result in fish kills along miles of the River Severn downstream.
- Some aspects of the way in which the risk assessment has been carried out are not conservative (as claimed by Shropshire Council/WSP) and the risk assessment does not comply with the Precautionary Principle – a crucial issue given the uncertainties about the underlying ground conditions and the significant implications of the supplies becoming contaminated.
- Even without addressing these inadequacies, the risk assessment is showing credible breakthroughs of contaminants in amounts and on timescales that will be of great concern to Severn Trent Water and the Environment Agency.
- Despite the significant concerns expressed by the Environment Agency and Severn Trent Water over many years, Shropshire Council has refused to properly consider alternatives that could reduce the risk to the public water supply such as alternative routes, lower speed limits or changing the junction layout to a less risky design. The council has also refused so far to commit formally to maintaining any mitigation measures required to reduce the risk to the water supply in an appropriate condition in perpetuity.
- BNG will be mandatory from November 2023. Organisations such as the Local Government Association state that “BNG is already required through national planning policy in England and Wales” and also point out that for local authorities, BNG links to a range of agendas including: • addressing the climate emergency • place-making • green infrastructure • access to greenspace and nature • mental and physical health and wellbeing • flood resilience • improving air quality

5.6.4 **Economic**

-Bypassing the town centre will lead to the reduced use of it which will deprive visitors and commerce alike
-The development itself is not likely to lead to any economic growth and will be an additional cost to be maintained.
-The only economic growth to be gained from the road will be the introduction of further new and harmful development using it as an access

point,
-An economic loss of tourism may be experienced in Shropshire through the loss of the rural idyll and character,
- The cost value relationship of the scheme is not worth the investment.

5.6.5 **Social**

- The proposal will reduce the availability of open space for enjoyment by local residents compounding the impacts of constant development around Shrewsbury
-The proposal will significantly increase air and noise pollution which is detrimental to local residents and the wider environment,
-Residents adjacent to or near the road will have a reduced quality of life caused by numerous factors including noise and air quality,
-Construction of the road will take a significant amount of time, resulting in a lot of noise, dust and other harmful impacts that will worsen air quality and quality of life,
-There will be significant neighbour impacts to residential development adjacent to existing streets such as Dalton Drive,
-A loss of easy access to the countryside which is important for health and wellbeing shall be caused,
-Road speed next to pedestrian/cycleways is a safety risk,
-Reduced property value for those near the road will be experienced,
-Tree Screening proposals are not extensive enough to mitigate the impacts on nearby dwellings.

5.6.6 **Other**

-The development will cause harm to rights of way for both walkers and horse riders through amending routes across longer distances resulting in poorer provision overall
-The development, including the viaduct, will cause significant visual harm to the local landscape, which is characterised by its rural appearance,
-The road is clearly the beginning of an infill exercise to the North of Shrewsbury and will only result in further expansion of the town into the countryside.
-Loss of further agricultural land, which is valuable for both food security and Shropshire agriculturally based economy,
-The development has not been considered properly with the public. Covid 19 was a convenient excuse not to engage fairly through public consultation with those affected.
-Landslides are known to occur on the route of the road and a failure to consider this is evident,
-Consideration of the viaduct design and the reasons for a viaduct has not been justified or explored, especially when it will be such a prominent feature and has been underestimated in its impact.

5.6.7 **Frequent Non-Material Considerations**

-The funding should be spent on sustainable transport, fixing potholes, park, and rides, broadband or flood defences instead,
- The NWRR is unaffordable and should be abandoned
- Given the council's financial position and the lack of a plan for funding the increase in the price of the scheme and the predicted continuing rise in

interest rates for monies that would have to be borrowed (2.3% in 2017 - now at 5.4% today), since the Outline Business Case was prepared in 2017, it is clear that the scheme, would be undeliverable.
-The planning documentation does not explore other options or undertake analysis against alternatives.

5.7 **THE APPLICANTS SUPPORTING STATEMENT**

5.7.1 Following the combination of the NWRR and the Oxon Link Road (OLR) schemes in December 2019, a set of common objectives for the joint scheme were agreed by Shropshire Council's Full Council in February 2020. The Proposed Scheme objectives are:

▪–Objective 1 - To improve regional and local access and connectivity by enhancing the resilience of the strategic and local network, reducing traffic congestion and improving journey time reliability for all modes of transport;

▪–Objective 2 - To provide the infrastructure needed to facilitate Shrewsbury's development strategy for the Shrewsbury West Urban Extension ("SUE") under Policy CS2 of the adopted Core Strategy, by enabling the provision of an existing housing allocation for 700 new dwellings and the improvement of the Local Centre on Welshpool Road;

▪–Objective 3 - To support the economic growth and competitiveness of Shrewsbury and Shropshire by enabling the provision of an additional 9 – 12 ha of employment land, to be used for the potential expansion of Oxon Business Park, a business campus and a gateway commercial area;

▪–Objective 4 - To enhance the benefits of other current and anticipated transport investment schemes, including the A49/A5 Dobbies Island junction, the Preston Boats junction, the Emstrey roundabout and the Shrewsbury Integrated Transport Package ("SITP");

▪–Objective 5 - To improve road safety and reduce road casualties and accidents, in part by reducing heavy traffic from unsuitable routes and rat-running on unsuitable rural roads;

▪–Objective 6 - To protect and enhance Shrewsbury's built and natural environment by reducing emissions of CO2 and other greenhouse gases and minimising the environmental impact of the Proposed Scheme; and

▪–Objective 7 - To support sustainable modes of transport, particularly by altering the form and function of Welshpool Road and by the inclusion of the combined footpath / cycle way along the Proposed Scheme route.

6.0 **THE MAIN ISSUES**

6.1 Principle of development
Siting, scale and design of structure
Visual impact and landscaping
Climate Change
Ecology
Arboriculture

Air Quality
Pollution
Flood Risk and Drainage
Water Environment
Soils, Ground Conditions, Material Assets and Waste
Highways and Transportation
Noise, Vibration and Nuisance
Historic Environment
Economic Development and Growth
Construction Management
Future Development
Non-Material Issues
Environmental Impact Assessment

6.2 Other consents required to facilitate the proposed scheme include (but may not be limited to):

- Protected Species Licence(s) under the Wildlife and Countryside Act 1981, the Conservation of Habitats and Species Regulations 2017 and other legislation;
- Environmental Permits under the Environmental Permitting (England and Wales) Regulations 2016, for example to include flood defence activities, discharge, temporary abstraction of groundwater during construction etc.;
- Lead Local Flood Authority Consent for works affecting ordinary watercourses;
- Public Right of Way Diversion Orders;
- Consent to carry out street works, to stop up highways permanently or temporarily and to classify or reclassify parts of the highway network (Highways Act 1980 as amended);
- Traffic Regulation Orders – for example, to allow for the imposition of waiting restrictions, one-way requirements and the revocation or variation of existing Traffic Regulation Orders (under the Road Traffic Regulation Act 1984);
- Compulsory Purchase Order (Highways Act 1980 as amended);
- Consent to carry out any required diversions of statutory undertakers' apparatus;
- Section 61 consents (if necessary) under the Control of Pollution Act 1974 for works outside of hours specified or which exceed the permitted noise thresholds; and
- To the extent that they apply to the proposed scheme, the Building Regulations 2010 would be complied with in the normal way.

7.0 OFFICER APPRAISAL

7.1 Principle of Development

7.1.1 The UK planning system is a plan-led approach, as set out in Section 38 (6) of the Planning and Compulsory Purchase Act 2004. This requires planning applications to be determined in accordance with the Development Plan unless material considerations indicate otherwise. The National Planning Policy Framework 2023 ('NPPF'), which provides a framework for the consideration of planning applications in England,

echoes this requirement. At the heart of the NPPF is "*a presumption in favour of sustainable development*". In terms of decision-taking, the presumption means that "*development proposals according with an up-to-date development plan should be approved without delay*".

7.1.2 The relevant Development Plan Policies pertinent to the consideration of this application are contained within the Shropshire Core Strategy (2011) and the Site Allocations and Management of Development Plan (2015).

7.1.3 Development has an important role to play in tackling climate change and delivering sustainable development goals in line with the NPPF. NPPF paragraph 7 defines the purpose of the planning system as being to achieve sustainable development. This is summarised as meeting the needs of the present without compromising the ability of future generations to meet their needs. Paragraph 8 identifies three overarching strands of sustainable development: these are economic, social and environmental. At the heart of the planning system is a presumption in favour of sustainable development and this is outlined in Paragraph 11.

7.1.4 Policy CS1 of the Core Strategy sets out the strategic approach to development across the county. This includes for 8,250 – 8,800 dwellings and 95 - 105 hectares employment land in Central Shropshire, of which 85 – 95 hectares will be in Shrewsbury. The commentary which accompanies Policy CS1 highlights that "*Transport is a particularly big issue for a rural county, particularly in the context of seeking to reduce carbon emissions and the economics of the declining supply of oil, now that international oil production is past its peak. Climate change and rising oil costs are also likely to increase the importance of local food production. These pressures are likely to drive an increasing need for self-reliance amongst Shropshire's communities. Consequently, the strategic approach is to enhance the role that Shropshire's settlements have traditionally played, as accessible, sustainable centres for their rural catchments."*

7.1.5 Core Strategy Policy CS2 sets out the development strategy for Shrewsbury during the plan period to 2026. It states that a comprehensive and co-ordinated approach will be pursued to the planning and development of Shrewsbury. The policy identifies the need for "*significant levels of housing and economic growth linked with infrastructure improvements."* Amongst the proposals listed under this policy is the provision of a new link road connecting Churncote Island on the A5 to Holyhead Road and the enhancement of Park and Ride facilities and other sustainable transport improvements. Policies CS1 and CS2 are supported by Policy MD1 of the SAMDev Plan which includes site allocations to meet the future development needs of Shropshire to 2026.

At para 4.27 of the accompanying supporting text to the policy CS2 it is stated that "*The implementation of the Shrewsbury Integrated Transport Strategy, with a combination of sustainable transport promotion measures including the Park and Ride facilities, quality bus routes and enhanced walking and cycling facilities provision, is key to the sustainable development of the town given the challenges of the constrained access to and through the town centre and the demand for crosstown traffic. The*

provision of the Shrewsbury North West Relief Road (NWRR) has been identified as an opportunity to tackle some of these issues in the Local Transport Plan for Shropshire, which the Core Strategy has regard to and seeks to enable. In terms of the strategic road network, limitations on the capacities of the junctions on the Shrewsbury bypasses are a further consideration, with the scope for improvements linked to the planned new developments. Improvements to the Shrewsbury Bus and Railway Stations and the possible development of the Shrewsbury Parkway Station at the A5/A49 Preston Boats Island on the eastern side of the town all form part of the multimodal approach to transport planning for the town."

7.1.6 Policy CS6 sets out sustainable design and development principles that the LPA will judge proposals against. Sustainable design and construction principles should be incorporated within new development along with resource efficiency. The policy also encourages the implementation of the transport hierarchy to maximise opportunities for walking, cycling and the use of public transport whilst reducing the need for car borne travel. Policy MD2 of the SAMDev plan builds on the theme of sustainability by promoting additional design principles such as sustainable drainage techniques and landscaping.

7.1.7 Policy CS7 deals with Communications and Transport and seeks to promote a sustainable pattern of development. To do this requires the maintenance and improvement of integrated, accessible, attractive, safe and reliable communication and transport infrastructure and services. These need to provide a range of opportunities for communication and transport which meet social, economic and environmental objectives by improving accessibility, managing the need to travel, offering options for different travel needs and reducing the impacts of transport. The policy identifies how this will be achieved listing a number aims and objectives such as the promotion and enabling improvements to the strategic and local highway network including improvements to the A5 Shrewsbury and Oswestry bypasses and promotion of the Shrewsbury North West Relief Road

7.1.8 Para 4.101 of the supporting text states that Highway improvements will include the further development of key by-passes and improvements on key road routes through Shropshire. These will include investment for the A49, serving the Rural Regeneration Zone and for the A5, especially on the Shrewsbury and Oswestry by-passes requiring highway improvements along the route and junction improvements on accesses to the towns in partnership with the Highways Agency. Shropshire also recognises Transport Wales proposed cross boundary investment to improve the A458 from Buttington at Welshpool to Wollaston Cross on the Shropshire border in the Welsh Trunk Road Forward Programme. The sub-regional role of Shrewsbury will also be enhanced through the promotion of the North West Relief Road as the final stage of the Shrewsbury bypasses.

7.1.9 Policy CS8 seeks to promote sustainable places with safe and healthy communities where residents enjoy a high quality of life. This will be achieved by protecting and enhancing existing facilities, services and amenities; preserving and improving access to facilities and services

wherever possible, including access to information and communication technologies (ICT), facilitating the timely provision of additional facilities, services and infrastructure to meet identified needs, as outlined in the LDF Implementation Plan; positively encouraging infrastructure, where this has no significant adverse impact on recognised environmental assets, that mitigates and adapts to climate change, including decentralised, low carbon and renewable energy generation.

7.1.10 The provision of the NWRR is intended to provide an alternative route for through traffic to circumnavigate the town centre, rather than travelling through it as at present. This will improve the quality of the environment in the town centre by reducing traffic, air pollution and assist in achieving the aims of Policy CS8.

7.1.11 Policy CS17 aims ensure that development will protect and enhance Shropshire's environmental assets, to create a multifunctional network of natural and historic resources. This will be achieved by ensuring development protects and enhances the county's natural, built and historic environment without adversely impacting the visual, ecological, geological, heritage or recreational value or function of such assets or their surroundings.

7.1.12 Policy CS18 seeks to integrate measures for sustainable water management to reduce flood risk, avoid an adverse impact on water quality and quantity, including groundwater resources, and provide opportunities to enhance biodiversity, health and recreation.

7.1.13 Policy MD2 builds on Policy CS6, for development proposals to be considered acceptable they should respond positively to local design aspirations, wherever possible, both in terms of visual appearance and how a place functions,

7.1.14 Policy MD8 states that applications for new strategic transport infrastructure will be supported in order to help deliver national priorities and locally identified requirements, where its contribution to agreed objectives outweighs the potential for adverse impacts. Consideration will be given to the potential for adverse impacts on residential amenity, visual amenity, landscape character, natural and heritage assets (Policies MD 12 and mD13), the visitor economy including long distance footpaths, cycle tracks and bridleways (Policy MD11), noise, air quality, dust, odour and vibration, water quality and resources, impacts from traffic and transport as well as cumulative impacts.

7.1.15 Policy MD12 ties into Policies CS6 and CS17 and through applying the guidance in the Natural Environment SPD, the avoidance of harm to Shropshire's natural assets and their conservation, enhancement and restoration will be achieved by:

1. Requiring a project-level Habitats Regulations Assessment for all proposals

where the Local Planning Authority identifies a likely significant effect on an internationally designated site. Permission will be refused where a HRA

indicates an adverse effect on the integrity of a designated site which cannot
be avoided or fully mitigated. Where mitigation can remove an adverse effect,
including that identified by the HRA for the Plan or the Minerals HRA, measures will be required in accordance with; CS6, CS8, CS9, CS17, CS18,
MD2; remedial actions identified in the management plan for the designated
site and the priorities in the Place Plans, where appropriate.

2. Ensuring that proposals which are likely to have a significant adverse effect,
directly, indirectly or cumulatively, on any of the following:
ii. locally designated biodiversity and geological sites;
iii. priority species;
iv. priority habitats
v. important woodlands, trees and hedges;
vi. ecological networks
vii. geological assets;
viii. visual amenity;
ix. landscape character and local distinctiveness
will only be permitted if it can be clearly demonstrated that:
a) there are no satisfactory alternative means of avoiding such impacts through
re-design or by re-locating on an alternate site and;
b) the social or economic benefits of the proposal outweigh the harm to the asset.

In all cases, a hierarchy of mitigation then compensation measures will be sought.

3. Encouraging development which appropriately conserves, enhances, connects, restores or recreates natural assets, particularly where this improves the extent or value of those assets which are recognised as being in poor condition.

4. Supporting proposals which contribute positively to the special characteristics and local distinctiveness of an area, Nature Improvement Areas, Priority Areas for Action or areas and sites where development affects biodiversity or geodiversity interests at a landscape scale, including across administrative boundaries.

7.1.16 Policy S16 sets out the site allocations for the Shrewsbury area and included within the proposals is the provision of a new Oxon Link Road and facilitation of the improvement of the A5 Churncote Island, along with sustainable transport measures as part of the SUE West Masterplan proposals.

7.1.17 Para 4.165 of the commentary states that "*The Shrewsbury West SUE will deliver approximately 750 dwellings on land north and south of Welshpool Road and land for employment use, including an extension to the Oxon*

Business Park, scope for a health and care business campus off Clayton Way, and a gateway business area adjoining the A5 Churncote junction. The development is planned to provide a new Oxon Link Road between the A5 junction and the Holyhead Road, relieving Welshpool Road of through traffic and forming a leg of the proposed Shrewsbury North West Relief Road, which remains an aspiration of the Council."

7.1.18 Para 4.169 of the commentary further states *"In relation to highways and transport, the provision of the Shrewsbury North West Relief Road remains a Council ambition and the Council's preferred route for this road is illustrated on the Shrewsbury Key Diagram linked to Policy CS2 in the Core Strategy. The Council recognises that land off Ellesmere Road could be a potential long-term direction for growth for the town but considers that such growth should be linked with the delivery of the Relief Road. The scope for significant developments in that area is particularly affected by the need for the road as, cumulatively, development would have adverse traffic impacts on this major approach to the town centre. Any proposals for development on land west of Ellesmere Road brought forward in the context of Policy MD3 would need to be co-ordinated with and where necessary, help fund the Relief Road, providing land and/or contributory finance as appropriate. The Shrewsbury Key Diagram also indicates a site for a possible Parkway Station at the A5/A49 Preston Boats Island on the eastern side of the town, which forms a further part of the long-term integrated transport strategy for town, but uncertainty over delivery in the Plan period again means that the site is not shown on the Policies Map."*

7.1.19 The delivery of the North West Relief Road is referenced several times in the adopted Development Plan and is considered an important piece of infrastructure to facilitate the future growth of Shrewsbury. The provision of this piece of infrastructure is an important component in the delivery of the growth agenda for Shrewsbury and the county as a whole. The principle of the delivery of the NWRR is supported by the development plan and therefore subject to other material planning considerations being satisfactorily addressed the application has planning policy support in principle.

7.1.20 The emerging local plan Draft of the Shropshire Local Plan 2016 to 2038 is currently at Examination in Public and as such now at a stage where it carries some limited weight. However there remain unresolved issues during the Examination in Public and we do not yet have the Inspectors report and therefore the weight that can be attributed to it is very limited. be taken into account.

7.1.21 Policy SP1 – The Shropshire Test states that '*Development will contribute to meeting local needs and making its settlements more sustainable' through* supporting the health, well-being and safety of communities; supporting cohesive communities; addressing the causes and mitigates the impacts of climate change; conserving and enhancing the high-quality natural environment and providing opportunities for green and blue network; Makes efficient use of land; and provides sufficient infrastructure, services, facilities, and where necessary provides opportunities for their

enhancement.

The second part of the policy states that '*where appropriate, proposals should seek to reflect relevant considerations of Shropshire Council's other strategies, including its Community Led Plans, Local Economic Growth Strategies (including the Shrewsbury Big Town Plan), the Local Transport Plan, and the Public Health Strategy'*. The NWRR is identified as playing an important part in the realisation all these plans and strategies and therefore can be seen to be supportive of these.

7.1.22 SP3 – Climate Change supports the transitioning to a zero-carbon economy in accordance with the policies of the Local Plan. The policy aims to do this via a series of measures including minimising the need to travel and maximising the ability to make trips by sustainable modes of transport; supporting the transition to a circular economy by reducing waste and maximising the re-use and recycling of material resources; prioritising use of active travel through the creation and enhancement of walking and cycling links; encouraging new development to link to and where possible integrate public transport;

The policy goes onto extol maximising carbon sequestration, by: encouraging development to offset its carbon emissions through investment in carbon capture and storage, informed by the Shropshire Climate Change Strategy; seeking opportunities to restore wetlands; and significantly increasing the number of hedgerows, trees and extent of woodland in accordance with the Shropshire Tree and Woodland Strategy.

Finally, it supports mitigating and adapting to the impacts of climate change, by: integrating design standards and sustainable drainage systems (SuDS) to manage flood risk associated with more extreme weather events; incorporating green infrastructure into the design of new development to reduce overheating; and supporting an increase in the extent, interconnectedness and diversity of wildlife habitats and the ecosystem services which they provide;

Clearly, there are challenges here for the NWRR in terms of satisfying some of these objectives as a predominantly road-based piece of infrastructure. However, it has sought to reduce its impact on the environment through various forms of mitigation and a compensation strategy, along with the Council taking ownership of its carbon footprint.

7.1.23 DP12 – Natural Environment – Seeks to avoid harm natural assets and their conservation, enhancement and restoration a project-level. The NWRR whilst providing replacement habitat through mitigation and the compensation strategy, clearly conflicts with the core aims of this policy due to habitat destruction.

7.1.24 DP14 – Green Infrastructure aims to improved and expanded green infrastructure network, by protecting existing assets and delivery new ones.

7.1.25 DP16 – Landscape of New Development – Seeks to create and maintain an attractive and well-designed environment, development proposals will

be expected to provide landscaping on site, unless the Council agrees that off-site landscaping would be more appropriate.

7.1.26 DP17 – Landscape and Visual Amenity – Development proposals should respect, safeguard, and wherever possible, restore or enhance landscape character and visual amenity. Significant adverse landscape and visual effects, will be a material consideration in determining planning applications.

7.1.27 DP18 – Pollution and Public Amenity – Development will comply with existing pollution control regimes and national objectives for pollutants. Proposals should be designed from the outset to; safeguard environmental quality and public amenity; minimise pollution; mitigate adverse effects; and maximise opportunities for improvements where practicable.

7.1.28 DP19 – Water Resources and Water Quality – Development must not adversely affect the quality, quantity and flow of both ground and surface water and must ensure that there is adequate water infrastructure in place to meet its own needs.

7.1.29 DP22 – Sustainable Drainage Systems - Developments will integrate measures for sustainable water management to reduce flood risk, avoid adverse impacts on water quality and quantity within Shropshire (including groundwater resources), and provide opportunities to enhance biodiversity, health and recreation in accordance with Policies DP12, DP14 and DP15.

7.1.30 DP23 – Conserving and Enhancing the Historic Environment - Shropshire's heritage assets will be protected, conserved, sympathetically enhanced and restored.

7.1.31 DP26 – Strategic, Renewable and Low Carbon Infrastructure - The delivery of sustainable communities in Shropshire relies on the provision of new strategic infrastructure and the continued operation of existing strategic infrastructure.

7.1.32 DP28 – Communications and Transport - Improve communications and transport networks and supporting the infrastructure and services to widen travel and transport choices and to improve connectivity and accessibility whilst moving towards reduced car dependency and managing the impacts of transport movements on communities and the environment.

7.1.33 S16 – Shrewsbury Place Plan Area – S16.1.7 states '*The delivery of the North West Relief Road (NWRR) is supported in principle, and as such the proposed line of the road is identified on the Policies Map. Development opportunities between the proposed NWRR and the Development Boundary will be guided by Policy SP10. In this area it is recognised that windfall employment proposals on appropriate sites adjoining the development boundary will be supported in principle where they meet the requirements of Policies SP13 and SP14 and where suitable vehicular access can be provided.*'

7.1.34 As noted above very limited weight can be given to these policies given its current status on the path to adoption. The policies are set out above but are subject to change as main modifications have not yet been received.

7.2 Siting, scale and design of structure

7.2.1 The NWRR runs from Ellesmere Road Roundabout to the Roundabout at Churncote, connecting the A49 v(ia the existing Battlefield Link Road) to the A5. The route of the NWRR stretches for 6.9km through mainly open countryside and whilst the alignment of the road has been carefully considered by the applicant to minimise its impact on the environment following the discounting of alternative routes, through an options appraisal process conducted over several years. The nature of the development does mean that there will inevitably be both positive and negative impacts arising from the scheme. It is therefore important that any benefits are maximised whilst adverse impacts are appropriately mitigated against or compensated for to minimise any potential harm to environmental interests of acknowledged importance.

7.2.2 The NWRR crosses the River Severn on an elevated viaduct spanning 690 metres across the river valley. As such this section of the NWRR will have the greatest visual impact on surrounding landscape. The route of the road has been chosen so that only a single river crossing is required to facilitate the development. The only other over road bridge on the route is where the NWRR crosses the Shrewsbury to Chester railway line.

7.2.3 The carriageway itself will be 7.3 metres wide and will include for entry/egress points at roundabouts situated at Churncote, Little Oxon Lane, Holyhead Road, Berwick Road and Ellesmere Road (A528) along the route. The development will also include for a number of crossing points along the route consisting of Shepherds Lane Overbridge, Clayton Way Overbridge, Holyhead Road Underpass, Shelton Rough River Severn Viaduct, Marches Way Accommodation Bridge and Hencott Railway Bridge.

7.2.4 The proposals also result in severance of existing routes at the following points Calcott Lane, Shepherds Lane, Little Oxon Lane, Clayton Way, Holyhead Road and Berwick Road. In addition, a further 16 points of severance are identified which impact non-motorised user routes and public rights of way along the route.

7.2.5 It is considered that on balance the application results in the minimum land take necessary for a single carriageway highway and that the scale is proportionate to what one would expect for such an infrastructure project. A number of alternative routes have previously been investigated by the Council as applicant prior to submission of the current application referred to earlier in the report.

7.3 Visual impact and landscaping

7.3.1 Paragraph 119 of the NPPF promotes the effective use of land to meet the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Paragraph

highlights the creation of high-quality places as being fundamental to what the planning and development process should achieve. Paragraph 130 identifies landscaping as a key consideration in this.

7.3.2 Within the Development Plan for the county, Policy MD2 is of relevance to addressing the visual and landscape impacts of the development proposals.
Policy MD2 builds on Policy CS6, for development proposals to be considered acceptable they should respond positively to local design aspirations, wherever possible, both in terms of visual appearance and how a place functions, whilst helping in alleviate existing infrastructure constraints.

7.3.3 There are no statutory criteria or standards laid down in the UK for the assessment of landscape and visual impacts. However, best practice is general conformity with the 'Guidelines for Landscape and Visual Impact Assessment' 3rd Edition (GLVIA3), published by the Institute of Environmental Management and Assessment and the Landscape Institute in 2013 (Landscape Institute, 2013). Technical Guidance Notes on a number of issues related to the assessment of landscape and visual impacts have also been published by the Landscape Institute.

7.3.4 The applicant has submitted a Landscape Visual Impact Assessment as part of the suite of documents that support the planning application. The LVIA identifies the impact of the scheme in the landscape. The most significant visual impact of the development will be the viaduct construction which will span the River Severn from east to west. The elevated nature of the bridge will mean it will become a prominent visual feature in the landscape.

7.3.5 The removal of the crawler lane on the bridge means that the structures bulk has been reduced from that originally proposed, which will reduce its visual impact to an extent.

7.3.6 The LVIA identifies several short term and longer term adverse visual impacts arising from the proposals. However, it goes onto identify mitigation in relation to these impacts providing replacement planting for loss of trees and woodlands, integrating with existing landscape character, along with ensuring connectivity between habitats and provision of biodiversity mitigation.

7.3.7 The proposed development is predicted to lead to predominantly adverse landscape and visual effects, with a small number of neutral and 2 beneficial effects. The proposed mitigation measures act to generally reduce the levels of adverse effects. Subject to submission and approval of detailed information on landscape proposals and aftercare which can be secured via appropriate conditions.

7.3.8 It is accepted that in part the proposals conflict with the stated aims of Development Plan policies CS5, CS6, CS17, MD2 & MD12 in relation to landscape character, visual amenity and the protection of the natural

environment. Policy CS5 requires development to maintain and enhance countryside vitality and character, it is considered in this case the improvements to the sustainability of rural communities resulting from local economic and community benefits offset damage to the landscape which is contained in a narrow strip along the route. Policy CS6 and MD2 focus primarily on sustainability and the need to respect the environment. Whilst policies CS17 and MD12 relate to the protection of the natural environment. Clearly, the scale of this development means that it will bring it into conflict with the stated objectives of these policies. This will have to be weighed up in the planning balance. .

7.4 Climate Change

7.4.1 Section 19(1A) of the Planning and Compulsory Purchase Act 2004 requires local planning authorities to include in their Local Plans "policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change".

7.4.2 The current Development Plan for Shropshire contains several policies which seek to promote sustainable development, and these are summarised below.

7.4.3 Policy CS1 aims to focus 65% of new development in existing settlements. The objective is to promote community self-reliance and enhance the role of the county's settlements as accessible and sustainable places (see para 4.7). This should reduce the need to travel by private vehicle and thus contribute to reducing carbon emissions.

7.4.4 A significant part of policy CS6 is aimed at mitigating and adapting to climate change. First bullet point of policy requires sustainable design and construction and seeks to improve resource efficiency and renewable energy generation. The need to locate development in accessible locations which maximise opportunities for walking, cycling and public transport is covered in bullet point 2. Paras 4.78 and 4.79 of the supporting text offer more detail text on climate change minimisation, mitigation and adaption.

7.4.5 Policy CS7 aims to promote a sustainable pattern of transport and reduce impact of transport. Seeks to provide a range of options for travel to reduce contribution to global warming (para 4.93).

7.4.6 Policy CS8 seeks to protect existing services and facilities (bullet point 1). This includes pedestrian and cycling facilities, public transport, open space, and green infrastructure (para 4.107). Support and encouragement for decentralised, low carbon and renewable energy generation infrastructure (bullet point 4).

7.4.7 Policy CS14 safeguards and delivers employment land in key locations to support the principle of locating development in the most sustainable settlements as set out in CS1. Contributes to reducing carbon emissions by reducing the need to travel to work for Shropshire residents.

7.4.8 Policy CS17 encourages and protects connectivity of wildlife corridors and networks. Secures financial contributions to create new and improve existing environmental sites and corridors. Protection and better connectivity will allow plants and animals to adapt to climate change.

7.4.9 Policy MD2 of the SAMDev plan seeks to enhance, incorporate or re-create natural assets through development. This will support climate change mitigation and adaptation. Para 4 of the policy requires SuDS. These reduce flood risk and thus the impacts of climate change. Para 5 of the policy promotes well connected outdoor spaces, including natural and semi-natural features. This will help mitigate climate change.

7.4.10 Policy MD12 seeks to protects, enhance and restore natural assets. This will maximise the ability of the natural environment to mitigate the effects of, and adapt to, climate change.

7.4.11 The Climate Change Act 2008 establishes a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels. To drive progress and set the UK on a pathway towards this target, the Act introduced a system of carbon budgets including a target that the annual equivalent of the carbon budget for the period including 2020 is at least 34% lower than 1990.

7.4.12 The Climate Change Act requires the government to regularly assess the risks to the UK of the current and predicted impact of climate change; to set out its climate change adaptation objectives; and to set out its proposals and policies for meeting these objectives.

7.4.13 Paragraph 152 of the NPPF emphasises the importance of the planning system in tackling climate change and transitioning to a low carbon future. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions. Clearly, the development of a new highway will inevitably have negative impacts, but equally these need to be balanced against the wider benefits that the development will create and how these effects can be mitigated against.

7.4.14 Paragraphs 153 to 158 of the NPPF relate specifically to climate change. Of particular relevance to the proposed scheme is the requirement for new development to be planned for in ways that:

a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

7.4.15 Changes have been made to the original submission for the NWRR,

however the carbon embodied in the development both from the construction and operational phases is still substantial (27,500 tonnes which has been independently verified by the University of Birmingham) even allowing for the design changes made which have reduced the carbon footprint of the development. Many objectors to the scheme have raised this issue and questioned why in the wake of the Council declaring a climate emergency it is promoting the provision of infrastructure which will result in a significant amount of carbon.

7.4.16 Shropshire Council has committed to owning the carbon from the scheme and including this within its commitment as an authority to be carbon neutral by 2030. The carbon calculation includes both the embodied carbon from the construction phase as well as operational emissions arising from the future use of the NWRR.

7.4.17 As part of this pledge, the scheme will allocate a sum of money equivalent to that to the value of carbon credits (£1.4m) which would be needed to offset the carbon footprint of the scheme. However, rather than buy carbon credits, the funding will be used to directly fund projects in the county so that the benefits are actually realised locally. Potential examples of where this fund will be invested include biochar and currently this is potentially being looked at for surfacing of the road. Biochar is a high-carbon, fine-grained residue that is produced via pyrolysis; it is the direct thermal decomposition of biomass in the absence of oxygen. Carbon credits can also be purchased to support carbon capture schemes in the county.

7.4.18 The fast-moving industry around carbon capture and carbon offsetting means that new innovations are continually being worked on and being introduced to the market. The carbon footprint of the development has been quantified and its impact costed out with a monetary sum equal to this being set aside to off set the impact of the development being spent on carbon capture projects. It is therefore considered that this issue has been satisfactorily addressed by the applicant.

7.5 <u>Ecology</u>

7.5.1 The European Union (EU) Habitats Directive protects certain species of plants and animals which are particularly vulnerable. The Directive specifically relates to Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites known as Natura 2000 sites. The UK Habitats Regulations are used to implement the EU Directive and require a Habitats Regulations Assessment (HRA). The process of HRA involves an initial 'Screening' stage followed by an Appropriate Assessment (AA) if proposals are likely to have a significant (adverse) impact on a Natura 2000 site.

7.5.2 The need for Habitats Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992, and incorporated into British law by the Conservation of Habitats & Species Regulations 2017 (as amended).

7.5.3 Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended), a competent authority, before deciding to

undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and
(b) is not directly connected with or necessary to the management of that site,

must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

European sites comprise of sites designated as Special Areas of Conservation (SAC) and Special Protection Areas (SPA). In addition, as a matter of government policy, Ramsar sites (Wetlands of International Importance designated under the Ramsar Convention) are also treated as though covered by the Habitats Regulations.

In the light of the conclusions of the assessment, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site.

In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.

If, after the implementation of conditions or restrictions, adverse effects on site integrity cannot be ruled out (based on the precautionary principle) then the plan or project can only proceed if:

- There are no feasible alternative solutions that would be less damaging or avoid damage to the site.
- The proposal needs to be carried out for imperative reasons of overriding public interest.
- The necessary compensatory measures can be secured.

7.5.4 Turning to legislation in relation to the granting of European Protected Species (EPS) License, in determining whether or not to grant a licence Natural England must apply the requirements of Regulation 55 of the Regulations and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) (9)(b).

(1) Regulation 55(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 55(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

(3) Regulation 55(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

7.5.5 Planning and licensing are separate and distinct consent regimes. Much of the information and evidence required by Natural England in order to determine a licence application will also be required by the planning authority as the competent authority for planning in its consideration of the planning merits of the application and if necessary, the likelihood of the development activity being granted a licence.

7.5.6 The level of species detail in respect of the compensation, mitigation and its delivery for any proposed development that is required at the licensing stage when Natural England will be required to satisfy itself of the three tests, will also be higher than that ordinarily required in the planning consent process. Such level of detail often may only be available at a detailed stage of the development’s evolution.

7.5.7 As stated above, where it is likely that one of the prohibitions referred to in paragraph 7.5.4 will be met, the planning committee will be required to consider the likelihood of a licence being granted and in doing so, the three tests. It would be inappropriate for Natural England to tell LPAs how to do this as LPAs are the decision-making body and must make the decision themselves and not appear to be fettering their discretion in any way. In considering the tests LPAs however should properly have regard to Government Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

7.5.8 Following on from the legislative side the NPPF para 174 states that *planning policies and decisions should contribute to and enhance the natural and local environment by*
a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
c) maintaining the character of the undeveloped coast, while improving public
access to it where appropriate;
d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
f) remediating and mitigating despoiled, degraded, derelict, contaminated

and unstable land, where appropriate.

7.5.9 Para 175. *Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.*

7.5.10 NPPF paragraph 180 further states that *when determining planning applications, the LPA should apply the following principles.*
a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in
combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

7.5.11 Para 181. *The following should be given the same protection as habitats sites:*

a) potential Special Protection Areas and possible Special Areas Conservation;

b) listed or proposed Ramsar sites; and

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

7.5.12 Para 182. *The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects),*

unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

7.5.13 Policies MD12 relates specifically to the natural environment and managing the impacts of development on it. In conjunction with Policies CS6 and C17 the LPA will seek to avoid harm to the County's natural assets. Conservation, restoration and enhancement will be achieved through requiring project-level Habitats Regulations Assessment for all proposals where the Local Planning Authority identifies a likely significant effect on an internationally designated site. Permission will be refused where a HRA indicates an adverse effect on the integrity of a designated site which cannot be avoided or fully mitigated.

Ensuring that proposals which are likely to have a significant adverse effect, directly, indirectly or cumulatively, on any of the following: locally designated biodiversity and geological sites; priority species; priority habitats important woodlands, trees and hedges; ecological networks; geological assets; visual amenity; landscape character and local distinctiveness. will only be permitted if it can be clearly demonstrated that:

a) there is no satisfactory alternative means of avoiding such impacts through re-design or by re-locating on an alternative site and;

b) the social or economic benefits of the proposal outweigh the harm to the asset.

In all cases, a hierarchy of mitigation then compensation measures will be sought.

7.5.14 Policy CS6 identifies the importance of protecting the natural environment taking into account the local context and character, and those features which contribute to local character, having regard to national and local design guidance, landscape character assessments and ecological strategies where appropriate.

7.5.15 CS17 relates to Environmental Networks and in particular their accessibility and connectivity. Development proposals should not have a significant adverse impact on Shropshire's environmental assets and not create barriers or sever links between dependant sites.

7.5.16 As a result of engagement with Natural England, it is proposed to desist agricultural activities in the area of land around Hencott Pool Site of Special Scientific Interest (SSSI) and Ramsar, as part of the proposed mitigation measures. This is required, as a result of the updated nitrogen assessment, to mitigate the impact of the proposed scheme during operation, on ammonia concentrations and nitrogen deposition which affect Hencott Pool.

7.5.17 A Habitat Regulations Assessment (HRA) has been undertaken by the LPA as the Competent Authority.

Following Stage 1 screening, the LPA concluded that the proposed

development was likely to cause significant effects on the Midlands Meres and Mosses Phase 2 Ramsar and the Severn Estuary SAC/Ramsar, therefore an Appropriate Assessment was required.

The LPA has compiled an Appropriate Assessment and considered mitigation measures and as Competent Authority is able to ascertain that the project would not adversely affect the integrity of any European site, either alone or in combination. Natural England have confirmed their agreement with this conclusion subject to appropriate mitigation being secured.

The desisting of agricultural activities in perpetuity on land surrounding Hencott Pool would be secured via a planning obligation.

The definition of 'agricultural use' which is to be desisted must be included in the planning obligation. It is proposed that this encompasses the following uses:

- Any form of agricultural activity (pastoral or arable);

- Fertiliser application;

- Keeping animals for any purpose (equestrian, sport etc); and

•• Storage of agricultural materials.Conversely, approved usages of the land which would not require planning permission, must be included in the planning obligation. It is proposed that allowable uses include the following:
- Leaving 'fallow' with annual harvesting of the weeds (and removal off site) to prevent spreading to adjacent agricultural areas;
- Grass harvesting for silage/hay which has not had any fertiliser applied;
- Site compounds and storage of materials for the construction of the NWRR; and
•• Wetland and woodland creation.

The planning obligation will secure the desisting of agricultural use for a period of up to 80 years, subject to review every five years. Upon review, were the need for mitigation no longer evident (e.g., it is demonstrated with evidence to the satisfaction of the Local Planning Authority and Natural England that the proposed development is no longer contributing to a significant adverse effect on Hencott Pool) it is considered that the requirements bound within the Section 106 agreement could be terminated upon agreement in writing from the LPA and NE.

7.5.18 During survey work several bat roosts were recorded in trees and buildings that would be directly or indirectly impacted by the Proposed Scheme. If the Proposed Scheme is granted planning permission, European Protected Species (EPS) mitigation licences would be applied for from Natural England to permit the destruction or disturbance of the roosts, in advance of construction commencing.

7.5.19 A total 125 trees, including the aforementioned trees with confirmed roosts, are anticipated to be removed or partially removed, to facilitate the Proposed Scheme including; one tree with high suitability to support

roosing bats, 14 with moderate, 63 with low and 44 with negligible suitability.

7.5.20 One building, West View, which is to be demolished supports a common pipistrelle day roost and a soprano pipistrelle day roost.

Four trees which are to be removed/impacted support bats roosts as follows.

T041 and T50 supports a soprano pipistrelle day roost. Tree T041 and the building of West View are located beneath the footprint of the proposed scheme at the proposed B4380 Holyhead Road and tree T050 beneath the alignment of the proposed Shelton Rough River Severn Viaduct. As such, these trees and building would be removed during the construction phase of the Proposed Scheme resulting in the permanent loss of three soprano pipistrelle day roosts and a single common pipistrelle day roost.

T092 supports a soprano pipistrelle day roost and a noctule day roost. Tree T092 is located approximately 10m from the footprint of the proposed scheme, adjacent to B5067 Berwick Road. At the time of writing, it is unknown whether this tree would require felling for the proposed scheme. As such, a precautionary approach has been applied and it has been assumed that the tree would be lost.

T150 supports a soprano pipistrelle day roost and a noctule day roost. Tree T150 is retained by the proposed scheme, however the tree would be located directly adjacent to the new carriageway. T150 would be subject to high levels of disturbance during the construction phase (noise, light, vibration, human presence) and also increased light and noise disturbance when the road is operational. As a result, there is the potential that, although retained, the roosts supported by tree T150 (soprano pipistrelle day roost and noctule day roost) would be functionally lost as the levels of disturbance would deter bats from roosting.

Based on the ‘low’ conservation significance of the roosts, a ‘low’ scale of impact is anticipated, in accordance with the Bat Mitigation Guidelines.

Demolition of building B1and felling of trees T041, T050, T092 & T150 to facilitate the development will require a mitigation licence from Natural England before any works can proceed. For the licence application, planning permission is required.

Details of the mitigation proposed for the loss of these roosts is detailed within Appendix 1.H of SEI: Bat Roost Mitigation Strategy and includes details of the tree felling protocol to be followed including the need for dusk and dawn surveys immediately prior to felling. A building demolition protocol is also detailed. Impacts would be timed to be within the active season for bats (April to November).

Compensation for the loss of roosts in West View and T041, T050 and T150 would be through the provision of suitable bat boxes at a 2:1 ratio (compensation to loss). The compensatory roost features would be

installed within areas north and south of the proposed scheme located between and adjacent to the existing roost locations of T041 and T050.

A total of eight Herpetosure Four Season Bat Boxes (or similar) would be installed as compensation for the loss of the roosts at West View and trees T041 and T050 and functional loss of the roost within T150. The boxes are a free-standing solution set on heavy gauge steel pedestals that are hinged for ease of maintenance. The boxes would be located along the edges of retained woodland or tree copses at least 20m from the new road alignment to reduce the potential disturbance from traffic (noise and light) associated with the Proposed Scheme

Compensation for the loss of the roosts in T092 would be through the provision of one Schwegler 1FF bat box and one Herpetosure Four Season Bat Box (or similar). The Schwegler boxes would be installed on mature, retained trees close to the location of T092.

The County Ecologist is satisfied that the proposed development will not be detrimental to the maintenance of the populations of common pipistrelle, soprano pipistrelle and noctule bats at favourable conservation status within their natural range.

7.5.21 The applicants have obtained an Impact Assessment and Conservation Payment Certificate (IAPC) from Natural England, therefore confirming their acceptance to enter into the Natural England run district level licensing (DLL) scheme in Shropshire for great crested newt (GCN) which both the applicant and Natural England have signed to agree to enter the DLL scheme, and a copy of which has been received by the Local Planning Authority.

The applicants have obtained an Impact Assessment and Conservation Payment Certificate (IAPC) from Natural England, therefore confirming their acceptance to enter into the Natural England run district level licensing (DLL) scheme in Shropshire for great crested newt (GCN) which both the applicant and Natural England have signed to agree to enter the DLL scheme, and a copy of which has been received by the Local Planning Authority.

The Shropshire GCN DLL scheme allows for a strategic approach to ensure that the favourable conservation status of GCN in their natural range is maintained. This is through payment of a conservation payment that allows for the impacts on GCN (through a planning application) to be adequately compensated.

It is therefore considered that the proposals will not be detrimental to the maintenance of the population of GCN at a favourable conservation status in their natural range.

7.5.22 In relation to impacts during the construction phase identified are vegetation clearance and disturbance which would be mitigated for by undertaking essential vegetation clearance outside of the bird breeding

season and the use of soft start techniques, low piling and directional lighting. This will be detailed in a Construction Environment Management Plan (Ecology) which will be conditioned.

No measures have been provided in the ES or SEI to mitigate for the loss of nesting opportunities provided by mature woodland and trees which are to be removed and a condition to secure nesting boxes to mitigate for this loss, prior to the landscaping maturing will be required.

7.5.23 Within the survey area (which included the proposed development redline and 30m either side up and downstream) evidence of use of the bankside by otter was limited. It is considered that with the inclusion of mitigation measures to limit disturbance to otters during works and post construction (as identified in the submitted documentation) that an otter mitigation licence would not be required. A Construction Environmental Management Plan (Ecology) will be conditioned which would detail working practices which would be adhered to, to ensure impacts to otters are avoided.

7.5.24 The impact on habitat has also been assessed and mitigation through replacement habitat has been sought. The details of this are considered to be broadly acceptable and a detailed scheme will be secured via appropriate conditions to offset the loss of existing habitat.

7.5.25 The loss of wet woodland resulting from the proposal, continues to be a source of concern. This is priority habitat, but it is also accepted that it is very difficult to recreate in accordance with the mitigation hierarchy set out in the NPPF. Policy MD12 requires mitigation or compensation and at present as the applicant has not been able to identify an appropriate location in the immediate vicinity of the development, it is suggested that a condition be imposed which requires the applicant to develop a suitable scheme to compensate for the loss of this priority habitat to be approved by the local planning authority.

7.5.26 The Compensation Strategy now includes a proposed 1.9ha of broadleaved woodland planting to be delivered on Shropshire Council owned land to compensate for the slight adverse effects identified on the two ancient woodlands named Hortonlane Coppice and Woodcote Coppice as a result of the scheme.

The area of proposed woodland compensation planting equates to the extent of significant air quality impacts modelled on these two ancient woodlands.

This compensation is considered suitable. These ancient woodlands would not be lost as a result of the Proposed Scheme and air quality effects would decline over time as the shift in fleet from petrol and diesel vehicles to electric increases. In addition, there is much uncertainty about the ecological effects of air quality on woodlands, particularly small incremental changes. Both woodlands have been assessed as already experiencing significantly high background nitrogen deposition rates.

7.5.27 The table below contains details of the impact on habitat and the mitigation/compensation measures proposed by the applicant.

Habitat type	Baseline habitat (ha)	Habitat removed (ha)	Habitat planting proposed on site (ha)	Net increase/decreas (ha and %)
Wetland – Reedbeds	0.00	0.00	0.24	0.24ha increase (24% increase)
Woodland and forest – Lowland mixed deciduous woodland	2.27	1.06	0.00	1.06ha decrease (46.7% reduction)
Woodland and forest – Wet woodland	0.65	0.62	0.00	0.62ha decrease (95.4% reduction)
Woodland and forest – Other woodland; broadleaved	5.02	1.27	4.85	3.58ha increase (71.3% increase)
Woodland and forest – Other woodland; mixed	0.7	0.16	0.03	0.13ha decrease (18.6% reduction)
Grassland – Bracken	0.05	0.04	0.00	0.04ha decrease (80% reduction)
Grassland – Other neutral grassland	0.46	0.14	20.43	20.2ha increase (4410.9% increase)
Grassland – Modified grassland	26.51	13.86	7.96	5.9ha reduction (22.25% decrease)
Heathland and shrub – Mixed scrub	1	0.45	5.38	4.93ha increase (493% increase)
Cropland – Cereal crops	46.24	29.21	6.34	22.87ha decrease (49.46% reduction)
Lakes - Ponds (Non-Priority Habitat)	0.2	0.04	0.3	0.26ha increase (130% increase)
Sparsely vegetated land – Ruderal/Ephemeral	16.28	10.88	3.05	7.83ha decrease (48.1% reduction)
Urban – Amenity grassland	1.02	0.62	0.02	0.6ha decrease (58.8% reduction)
Urban – Vacant/derelict land/bare ground	0.53	0.26	1.85	1.59ha increase (300% increase)
Urban - Developed land; sealed surface	15.49	3.21	12.12	8.91ha increase (57.5% increase)

7.6 Arboriculture

7.6.1 The development will inevitably result in the loss of important trees and woodland along the route of the proposed road. Clearly, a project of this size and complexity will have an adverse impact in terms of existing landscape features.

7.6.2 The proposed alignment of route results in the loss of an 99 veteran trees with potential adverse impacts upon a further 37 veteran trees. These trees are irreplaceable, their loss cannot be compensated, for example through any amount of new tree planting under a landscape scheme. Para 180(c) of the NPPF states: *'Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional circumstances, and a suitable compensation strategy exists.'* Footnote 63 defines what constitutes 'wholly exceptional' circumstances as *'For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.'*

Feature	Impact	Tota
Veteran trees		
T2, T3, T48[1], T50, T52, T58, T65, T99 and T382	Removal	9
T5	Damage/loss of roots and permanent loss of rooting volume, air quality.	4
T28	Damage/ loss of roots, air quality.	
T37	Damage/ loss of roots, air quality.	
T44	Damage to roots, air quality.	
T61	Damage/loss of roots and permanent loss of rooting volume	1
T6, T12, T14, T16, T21, T25, T45, T139, T158, T174, T175, T176, T177, T179, T218, T397, T401, T420, T542, T1204, T1209, T1216, 55749*, 55754*, 55767*, 55773*, 112583*, 152536*, 152542*, 181638*, 182712*, 189243*.	Air quality	32

7.6.3 Three TPOs covering a total of nine trees, two tree groups and two areas of trees are impacted by the development. They are titled as The Shrewsbury Borough Council (Cross Hill Farm) Tree Preservation Order 1972 (TPO 1972), the Shrewsbury and Atcham Borough Council (Calcott Lane, Bicton Heath) Tree Preservation Order 1992 (TPO 1992) and the Shrewsbury and Atcham Borough Council (Land at and surrounding Bicton Heath North) TPO 2008 (TPO 2008).

7.6.4 A veteran tree is defined as possessing the physical characteristics of an ancient tree, but which is not aged in comparison with other trees of the same species. Thus, a veteran tree may not necessarily be particularly old but due to the rigours of life, may exhibit signs of ancientness.

7.6.5 Veteran trees may include habitat features which only arise in very specific circumstances, and which cannot be replicated through artificial means. These features can include large volumes of decaying wood (especially if internal to a stem or branch) or niche habitats arising from crown retrenchment or other ageing processes. On this basis veteran trees are acknowledged as high value features and an irreplaceable, finite resource of national importance.

7.6.6 In addition to national policy, the loss of irreplaceable veteran trees and

other important natural assets is contrary to Shropshire Council Local Plan policies aimed at protecting, enhancing, expanding and connecting environmental and natural assets and achieving sustainable development, including Core Strategy Policies CS6 (Sustainable Development) and CS17 (Environmental Networks) and SAMDev Policies MD2 (Sustainable Design) and MD12 (The Natural Environment).

7.6.7 The Arboricultural Impact Assessment of the ES and Arboricultural Report Addendum of the Supplementary ES identify that construction of the NWRR will result in the loss of a combined total of 78 category 'A' and 'B' trees (of high and moderate value under the BS5837: 2012 classification, which Shropshire Council would generally seek to retain where feasible within a development scheme), including 9 veteran trees; in addition it will result in the loss or partial removal of 3 category 'A' or 'B' wooded areas and 18 category 'A' or 'B' tree groups totalling 1.01ha and 443m of linear group feature. The loss of low value category 'C' features includes 32 trees, the removal or partial removal of 25 tree groups totalling 0.5ha and 586m of linear group feature, and the removal or partial removal of 43 hedgerows totalling 3,437m. The County Arborist maintains an objection in principle to the proposals based on the loss of veteran trees which are classed as irreplaceable in para 180c of the NPPF.

7.6.8 As has been pointed out, the loss of veteran trees which are irreplaceable natural assets cannot be offset by new planting etc; the NPPF acknowledges this and makes plain that there must be wholly exceptional reasons to justify the loss of such trees. The footnote in the NPPF to this chapter identifies infrastructure proposals such as that being proposed as justification where there are public benefits that clearly outweigh the loss or deterioration of habitat. If the test of 'wholly exceptional reasons' has been met, the NPPF then requires that a suitable compensation strategy exists, in order to justify granting planning permission.

7.6.9 The route of the NWRR has been carefully considered to minimise the loss of trees and woodland, however there are also other competing factors, and it is a fact that without the loss of some veteran trees then the project could not be delivered. Clearly, to accept the loss of these irreplaceable trees it needs to be demonstrated that 'wholly exceptional reasons exist' and assuming this is considered to be the case, then the applicant must bring forward a comprehensive, suitable compensation strategy, as well as minimising losses in the first place.

7.6.10 The applicant has committed to having an arborist regularly on site during the construction of the route, so that advice is readily on hand for the contractor. Whilst certain trees have been identified as being impacted by the construction of the road, every effort will be made to ensure where possible trees are retained and protected. Therefore, having an arborist on site to provide immediate advice will assist in ensuring that the loss of trees or damage is kept to a minimum.

7.6.11 The case for wholly exceptional reasons is set out in the Economic Development and Growth section of this report below. Assuming that wholly exceptional reasons are considered to exist to justify the loss of

these veteran trees and ancient woodland, then Para 180(c) goes onto to state that a suitable compensation strategy must exist.

7.6.12 The Compensation Strategy is considered to result in some positive effects to re-balance the losses with the creation of new habitat through landscaping along the NWRR alignment and beyond. The landscaping scheme for the NWRR makes provision for the introduction of native flora species which will provide new habitats for native fauna to colonise. The compensation strategy content is set out in Appendix 1 to this report. It is proposed to be secured via condition for parts owned by the Council and S106 for land outside of the Council ownership.

7.6.13 The Environment Act was passed in 2021 and Biodiversity Net Gain (BNG) will soon become mandatory. However, the National Planning Policy Framework also requires a net gain approach which should be achieved in a measurable way.

7.6.14 BNG is the end result of a process applied to development so that, overall, there is a positive outcome for biodiversity. The process itself follows the mitigation hierarchy, as outlined within the good practice principles for development, which sets out that everything possible must be done to firstly avoid, secondly minimise and thirdly restore/rehabilitate losses of biodiversity on site. Only as a last resort are residual losses to be compensated for by using biodiversity offsets.

7.6.15 Irreplaceable habitats were excluded from the biodiversity calculations. A scheme-wide outcome of BNG can only be achieved by avoiding impacts on such features. Where such impacts persist, bespoke mitigation measures must be agreed directly with statutory agencies. Net gains can still be sought and assessed for the remaining habitats.

7.6.16 The Site includes 2.67ha of irreplaceable veteran tree habitat, encompassing the root protection zones of the veteran trees recorded on the site. This 2.67ha area of irreplaceable habitat was excluded from the calculations. The proposed scheme would involve the removal of some of the irreplaceable habitat within the Site, with 9 of the 39 recorded veteran trees within the study area directly lost as a result of the Proposed Scheme. The Arboricultural Impact Assessment contains more information on the loss of ancient/veteran trees associated with the proposed scheme and the mitigation measures proposed. The Arboricultural Impact Assessment contains more information on the loss of ancient/veteran trees associated with the proposed scheme and the mitigation measures proposed although key details and comments have been provided throughout the report.

7.6.17 The proposed scheme would result in a 16.82% net gain in non-irreplaceable area-based habitat units, a 26.09% net gain in linear-based hedgerow units and a 49.66% net loss in linear-based river units. Although the proposed scheme would achieve a quantitative net gain in non-irreplaceable area-based and linear hedgerow biodiversity units, the proposed scheme cannot claim to deliver a net gain in non-irreplaceable biodiversity. This is because there is a net loss in river units and like-for-

like compensation for the loss of baseline lowland mixed deciduous woodland and wet woodland Habitats of Principal Importance would not be delivered by the proposed scheme, and therefore principle 6 of the good practice principles would not be achieved.

7.6.18 The proposed scheme has not achieved a qualitative scheme-wide BNG as only five of the ten good practice principles have been achieved. The nature of the development means that this was always going to be the case and therefore it is important the proposals extenuate the positives and mitigate as far as possible the negative impacts

7.6.19 It is acknowledged that the loss of veteran trees (irreplaceable habitat and wet woodland (priority habitat), cannot be avoided or adequately mitigated against. Therefore, in accordance with para 180a of the NPPF this needs to be compensated for and the applicant has sought to address this through the production of a compensation strategy which is considered to be acceptable. The detail of the compensation strategy is set out in detail in Appendix 1 of this report.

7.8 Air Quality

7.8.1 There are several pieces of planning policy which are relevant to the proposed development specifically in relation to air quality. Firstly, Para 104 of the NPPF states that transport issues should be considered so that the potential impacts of development on transport networks can be addressed and that net environmental gains are considered.

7.8.2 Further Para 105 notes that the planning system should actively manage patterns of growth and that this can help to reduce congestion and emissions and improve air quality and public health.

7.8.3 Para 174 of the NPPF highlights the importance of planning policies and decisions preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air pollution and that development should wherever possible help to improve local environmental conditions such as air quality.

7.8.4 Para 186 of the NPPF makes clear that air quality is an important consideration in the decision-making process. "*Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement."* It goes onto state that "*Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."* Therefore, planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants taking into account the presence of AQMAs. Planning decisions should ensure that any new development in AQMAs is consistent with the local air quality action plan.

7.8.5 SAMDev Policy MD8 states that consideration should be given to air quality when considering strategic transport infrastructure. This is aligned

to the NPPF principals highlighted above.

7.8.6 The NPPF makes reference to the presence of Air Quality Action Plans (AQAPs). The AQAP for Shrewsbury was last amended in 2008. It is available on the Shropshire Council webpages. The AQAP highlights consideration of pursuing a NWRR for Shrewsbury. It notes that this would be likely to have a very high impact on the air quality in the AQMA. A very high impact is defined in the document as an impact creating a positive betterment which is likely to be very high within the AQMA with or without complimentary schemes. Page 26/27 of the AQAP notes the NWRR as a key action to be investigated in order to tackle air quality challenges.

7.8.7 Air Quality is a significant concern in relation to the NWRR for many people. The NWRR is likely to re-route much of the existing town centre through traffic around the built-up area of Shrewsbury and reduce congestion on the existing road network thus improving air quality in some locations such as the town centre and inner urban areas. Slow moving traffic tends to contribute negatively to poor air quality and the NWRR will assist in tackling air quality issues around the town by reducing the need for through traffic to travel through the town centre on the existing road network.

7.8.8 Air Quality in Shrewsbury is generally favourable, but like most urban areas there are exceedances of annual mean NO2 objectives (40µg/m3) in heavily trafficked areas in the town centre and along major roads. There are no Air Quality Management Areas (AQMA) within the study area of the proposed scheme. The closest AQMA lies approximately 1.3 km to the south-east, encapsulating Shrewsbury town centre, and has been active since 2003 for exceedances in annual mean NO2.

7.8.9 On balance, it is considered that the proposals conform to national and local policy in respect of delivering air quality improvements. In addition, it brings forward a proposal in the AQAP which expected the NWRR would have a very high positive impact on the air quality of Shrewsbury town centre.

7.8.10 Overall, the proposed development has been modelled to deliver betterment in locations where the highest levels of air pollution are currently found and can be said to be an improvement in respect of the AQMA as in some places this is expected to result in achieving legal objective levels whilst in others it reduces pollution concentrations closer to the objectives of the AQMA. However, the NWRR is likely to create an increase in pollution in some less populated areas. In no location is it predicted for the proposal to push pollution concentration above acceptable threshold levels for any pollutant. The impact at all existing receptors on the existing road network is considered to be a low impact due to headroom below national objective levels where an increase in pollution is modelled. The impact on residential receptors that will be close to the proposed development is low for the same reasons. The proposed

development is concluded by the applicant to have a significant beneficial effect on human health. Given the information presented this conclusion is accepted given its low impact where increases in pollution are expected and the reductions created in specific locations of concern where high pollution levels currently exist.

7.9 Pollution (Noise dealt with in separate section)

7.9.1 NPPF paragraph 130 states that planning decisions should create places that are safe, inclusive and accessible and which promote health and well-being with a high standard of amenity for existing and future users. Development should function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development.

7.9.2 Para 188 states that the focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively.

7.9.3 Policy MD8 of the SAMDev Plan states the need for new transport infrastructure will be supported in order to help deliver national priorities and locally identified requirements, where its contribution to agreed objectives outweighs the potential for adverse impacts. It then lists a number of considerations including residential amenity, Noise, air quality, dust, odour, vibration, Water quality and resources as well as impacts during the construction period.

7.9.4 Increased pollution has been cited by numerous objectors to the scheme as a major concern. The scheme aims to reduce existing pollution hotspots in the town centre by providing an alternative route around the town thus removing the need for through traffic to travel through the town centre. Therefore, it is expected that an overall betterment will occur in existing urban locations in the town as a result of the development. There will inevitably be some increase in pollutants along the route of the road itself, however this will be in less populated localities and the increases will be below acceptable thresholds.

7.10 Flood Risk and Drainage

7.10.1 NPPF para. 159 states that where new development is proposed in areas vulnerable to flooding, care should be taken to ensure that risks are managed through adopting appropriate measures. Paragraph 167 reiterates that development should be directed away from areas vulnerable to flooding. Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

7.10.2 NPPF para. 161 advocates a sequential, risk-based approach to the location of development should be adopted taking into account the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. This should be done by, among other things, applying the sequential test and then, if necessary, the exception

test. Paragraph 162 highlights that the aim of the sequential test is to steer new development to areas with the lowest risk of flooding. The Strategic Flood Risk Assessment provides the basis for applying the test with the sequential test being used in areas known to be at risk of flooding now or in the future.

7.10.3 Para. 167 states that when determining planning applications local planning authorities should ensure that flood risk is not increased elsewhere. Development should only be allowed in areas at risk of flooding where a flood risk assessment (and the sequential and exception tests as applicable) it can be shown that the most vulnerable development is located in areas of lowest risk.

7.10.4 NPPF para. 169 is clear that major developments should incorporate sustainable development systems unless there is clear evidence that this would be inappropriate. In this case sustainable urban drainage has been built into the design of the scheme and will continue to be refined during the detailed design stage.

7.10.5 Policy CS2 requires flood risk management, based on the Shropshire Strategic Flood Risk Assessment, that protects and enhances the corridor of the River Severn and its tributaries and enables development appropriate to the flood risk.

7.10.6 Policy CS18 of the Core Strategy encourages sustainable water management as this contributes to climate change mitigation and adaptation by reducing the impact of flooding. This also maintains biodiversity. Energy use is reduced through minimising the movement of water (para 7.11).

7.10.7 Policy MD2 of the SAMDev Plan states new development will incorporate Sustainable Drainage techniques, in accordance with Policy CS18, as an integral part of design and apply the requirements of the SuDS handbook as set out in the Local Flood Risk Management Strategy.

7.10.8 The proposals have been designed to incorporate a flood storage area to assist in the alleviation of future flood events.

7.10.9 The Lead Local Flood Authority has raised no objection subject to appropriate conditions, to secure appropriate measures in terms of flood risk, water management and the drainage scheme. It is considered subject to the suggested conditions the proposals would provide the necessary management of the water environment and would not give rise to flooding in accordance with national policy and policies CS2, CS18 of the Core Strategy and Policy MD2 of the SAMDev Plan.

7.11 Water Environment

7.11.1 The alignment of the NWRR passes through a Source Protection Zone and this has required careful consideration of the potential impacts that might occur as a result of construction work or an incident that causes contamination of the drinking water supply for Shrewsbury. Both the

Environment Agency and Severn Trent Water have raised concerns around the matter and have sought assurances from the applicant around dealing with potential issues that may arise.

7.11.2 Para 183 of the NPPF states that planning decisions should ensure a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination.

7.11.3 Policy CS18 highlights the need for development to avoid an adverse impact on water quality and quantity within Shropshire, including groundwater resources.

7.11.4 Policy MD8 also makes reference to the impact of new transport infrastructure. It states that development will be supported in order to help deliver national priorities and locally identified requirements, where its contribution to agreed objectives outweighs the potential for adverse impacts. Particular consideration will be given to the potential for adverse impacts on water quality and resources.

7.11.5 The road alignment passes directly through a Source Protection Zone as referenced above and as such this creates the potential for a serious incident were the ground water aquifer which supplies drinking water to Shrewsbury to become contaminated as a result of a spillage on the new road or the construction process impacting boreholes.

7.11.6 The Environment Agency and Severn Trent Water concerns relate primarily to the potential contamination of the drinking water supply to Shrewsbury. Following the submission of additional information and further discussions, Severn Trent Water are now comfortable enough to deal with outstanding matters by way of condition. However, the EA have maintained their position in relation to requiring additional information to address their outstanding concerns set out above and have refused to enter into discussions around potential conditions to mitigate and overcome their concerns. Furthermore, it should be noted that the EA are not objecting to the proposals and as such an impasse has been reached in terms of moving this matter forward to a resolution because of the EA's unwillingness to engage in advance of a committee resolution.

7.11.7 The applicants;: whilst acknowledging that were contamination of the town's water supply to occur, the impact would be catastrophic; have designed the scheme to minimise the risk of such an event occurring to a level that would require three tankers spillages simultaneously at the same point. Clearly, the likelihood of such an event happening is extremely low.

7.11.8 The risk of an event of such magnitude is extremely low, given the likely scenario that would have to play out. However, it is equally important that any potential risk no matter how small is properly quantified and mitigated against appropriately to minimise the threat of it occurring. Therefore, to alleviate the concerns of both STW and EA, the Highway Authority will sign a Memorandum of Understanding to ensure an accelerated emergency response and clean up in such an event.

7.11.9 The issue of turbidity (the measure of relative clarity of water) in relation to the impact of the development on the water supply to Shrewsbury has been a source of significant dialogue between the LPA, the applicant, Severn Trent Water and the Environment Agency. Whilst STW are sufficiently comforted to recommend pre-commencement conditions to deal with their concerns in relation to turbidity, the EA are still insisting on the submission of additional information before they will commit to conditioning further details. Given that STW are responsible for drinking water it is considered that if they are content to deal with this matter by way of a pre-commencement condition as they have indicated then the matter should be dealt with in this way, irrespective of the stance of the EA. Whilst, it would have been preferrable to have agreement between all parties in advance of consideration of the application, but given that the dialogue has been ongoing for over two and a half years since the submission of the application in February 2021 the LPA has sought external independent advice.

7.11.10 To progress this matter the Local Planning Authority commissioned an independent review by Waterman of the applicant's Environmental Statement and subsequent information to satisfy itself and provide comfort to the EA that the proposals were robust, suitably considered and dealt with their issues. The independent consultants made the following recommendations.

No requirement to provide Regulation 25 further environmental information. It is understood a consolidated Non Technical Summary (NTS) is under preparation by WSP and on the assumption the NTS is satisfactory, all clarifications are accepted.

Air Quality - All clarifications resolved, many on the basis of previously agreed approaches with SC Regulatory Services, the exception is C.5.11. With regard to C.5.11 the EIA scopes out the detailed assessment of construction vehicle emissions on the basis the construction programme is less than 2 years as per DMRB LA 105 - Air quality methodology. Confirmation is required from Shropshire Council Regulatory Services to confirm this is also an agreed approach as it deviates from the methodology set out in the EIA scoping report which indicates IAQM guidance should be used. If the approach is not agreed and IAQM should be applied, then further clarification is sought from WSP further detail in respect of construction traffic and potentially an assessment if they exceed the thresholds set out in the IAQM guidance.

Agriculture and Soil Resources - no clarifications sought.

Biodiversity - Subject to confirmation that certain approaches in respect to surveys have been agreed with the SC ecologist, the clarifications are accepted, noting the requirement for a suitably worded planning condition for pre-construction surveys. The methodology used within the Biodiversity Net Gain Assessment needs further consideration in order to formulate a Section 106 obligation, however this is not material to the EIA.

Climate Change - All clarifications provided by WSP accepted.

Geology and Soils - The majority of clarifications are accepted and it is agreed there is no requirement to provide Regulation 25 further environmental information. In respect of C.9.1 the turbidity protocol and piling risk assessment which would normally be undertaken as part of the detailed design will allow the level of risk to be better defined and that an appropriately worded condition would be suitable to address the current shortfall of specific data. However there remains a difference of view in respect of the initial risk rating, and until additional detailed design is undertaken, the risk level should be increased. Whilst we understand WSP's argument, we would not expect this to have any material impact on the overall assessment, but it may be sufficient to allow the EA to remove this particular point of objection.

Historic Environment - All clarifications provided by WSP accepted.

Landscape and Visual Impact - All clarifications provided by WSP accepted, no requirement to provide Regulation 25 further environmental information.

Major Accidents and Disasters - All clarifications provided by WSP accepted.

Material Resources and Waste - Clarifications provided by WSP regarding 'materials' are accepted. However, 'waste' clarifications cannot be accepted on the basis that uncertainty remains over the baseline data used within the assessment. WSP have not commented on the potential typographical errors within the baseline but have only reiterated that the mitigation proposed is suitable so not an issue.

Noise and Vibration - All clarifications provided by WSP accepted, no requirement to provide Regulation 25 further environmental information. The NIR assessment will be provided post planning, and subject to suitably worded planning conditions.
Population and Health - All clarifications provided by WSP accepted, subject to conclusions of air quality, geology and soils; and road drainage and water environment being concluded.

Road Drainage and Water Environment - A number of the clarifications provided by WSP have been accepted. However there remain clarifications that are not resolved, which require confirmation from Shropshire Council in their capacity as the LLFA. This confirmation should identify their approach, whether it involves securing a planning condition, requesting further clarity from WSP or confirmation of the LLFA's approach on matters of policy.

Cumulative Effects - All clarifications provided by WSP accepted.

7.11.11 Having regard to the Waterman findings in relation to the contents of the Environmental Statement, it it considered this allows the LPA to proceed to determination and secure appropriate mitigation to offset the impacts through suitably worded pre-commencement conditions dealing with the

outstanding matters which require additional information to be agreed with statutory consultees in advance of the development commencing on site.

Clearly, the views of the EA as a statutory consultee need to be afforded great weight, however in this instance the LPA has been placed in an unprecedented position with the EA challenging the content of the ES and not being prepared to enter into dialogue over appropriate conditions in advance of a committee decision.

Therefore, an independent third party consultant (Waterman) were commissioned to undertake a detailed review the ES on behalf of the LPA to ensure that sufficient information and clarification was provided to provide the a sound basis on which to proceed to determination of this application. Waterman has supported the position that the ES is robust. This along with the conditional support of Severn Trent Water has allowed the LPA to continue to proceed to determination.

7.12 Highways and Transportation

7.12.1 Section 9 of the NPPF seeks to promote sustainable transport. Para.104 makes it clear that transport should be considered as part of the plan making process to ensure a) the potential impacts of development on transport networks can be addressed; b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised; c) opportunities to promote walking, cycling and public transport use are identified and pursued; d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains

7.12.2 Para.105 states that the planning system should actively manage patterns of
growth and that significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. Adopting this approach can help to reduce congestion and emissions whilst improving air quality and public health. It goes on to make the point that sustainable transport solutions between urban and rural areas will vary, and this therefore needs to be factored into the decision-making process.

7.12.3 There has been a significant amount of correspondence around this subject from members of the public and the promotion of more sustainable modes of transport such as better public transport provision, better cycling and walking routes. The transport strategy for Shropshire is multi-modal and each mode has an important part to play in reducing reliance on the private car. The county itself is in essence rural in character for the most part and therefore many residents rely on private vehicles to get around as other alternatives are simply not available. It is therefore important to recognise that whilst there is an aspiration to reduce the need for travel by private vehicle, the rural nature of the county means that the private vehicle will continue to play an essential part in people's travel habits due to practicalities.

7.12.4 The reduction in traffic volumes on the existing network resulting from the NWRR should allow road space reallocation to provide better on road facilities for cyclists along the length of Welshpool Road. The draft Local Transport Plan and the wider assessment for Shrewsbury in the 'Smarter Choices for Shrewsbury Preferred Option''92 (Mouchel May 2010) identifies the need for a range of infrastructure improvements on this major radial route into the town centre. The scheme provides the opportunity to improve cycle accessibility for significant residential areas located either side of this key route.

7.12.5 The Council already operates a park and ride service between Oxon and the town centre. Although part of this is earmarked to be the contractor's main compound during the construction phase of the road. The Park and Ride service will continue to operate from the site during the construction phase. Clearly, this will reduce parking capacity during the build out of the NWRR, however as the current P&R does not operate at anywhere near capacity at present it is not considered that this will adversely impact users ability to access this service.

7.12.6 Paragraph 111 of the NPPF states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe. The NWRR will take traffic off the existing highway network and will result in increased capacity, therefore the development will only be beneficial to the existing situation. In terms of highway safety, the scheme has been designed to minimise potential conflicts between different road users.

7.12.7 The construction of a new road inevitably will create a degree of severance and therefore how this is mitigated is an important consideration. The application therefore incorporates several crossing points for pedestrians, cyclists, horse riders and wildlife. The road has been designed to ensure the uninterrupted free flow of traffic at speed and as such crossing points are either via underpasses or overbridges. There are no crossing points at road level itself.

7.12.8 The accuracy of traffic flows has been raised as an issue by objectors to the scheme, modelling has been undertaken and assumptions contained within are considered to be realistic, this has been endorsed by both National Highways and SC Highways therefore the LPA is content with accuracy of the work undertaken by the applicant regarding support of the scheme.

7.12.9 Ensuring continued connectivity across the route of the NWRR is an important factor. The alignment of the route means that it will not result in existing communities being cut off from one another, however it is still important that existing pedestrian, cycle, equestrian routes as well as wildlife corridors are considered and accounted for in the design to alleviate as far as practical detrimental impacts on these users. As the route of the NWRR passes through open countryside, there is a limit to

what level of mitigation is considered appropriate given the number of users impacted and obviously this judgement needs to be made on a cost v benefit basis.

It is considered that on balance this has been achieved and that severance of these routes has been mitigated appropriately for the most part to the satisfaction of officers.

7.12.10 There are several points along the route which essentially passes through the countryside where it is not practical or feasible to make provision for grade separated crossings for all footpaths, routes and roads to continue on their existing lines. The applicant has stated that such expenditure would be disproportionately high when compared to the potential benefits given the surveyed low number of users of the existing routes. This is especially the case on Calcott Lane and Shepherd's Lane which could be deemed to be improved by creating cul-de-sacs on both (on both sides of the NWRR) as this would remove the 'through' / 'rat running' movements (which are also likely to be the vehicles travelling at higher speeds). The cul-de-sacs would also create a safer and improved environment for pedestrians and cyclists given that, for the majority of their length, neither of these roads have dedicated footways; both roads also have narrow carriageways with no kerbs, with limited verge or space to the side of the carriageway, with no street lighting on either roads and both have a posted 40mph speed limit.

7.12.11 Public transport will benefit as a result of the proposed scheme due to the reduction in congestion and traffic delay. The proposed scheme could significantly reduce the journey time for the last 3-4 miles into the Town Centre which would make bus travel more attractive. This will in turn promote and encourage travel by bus, and the SC Passenger Transport Group Manager has indicated the proposed scheme, coupled with other bus priority interventions, could be extremely beneficial for public transport in Shrewsbury.

7.12.12 The proposed scheme will improve access to Shrewsbury Railway Station by reducing traffic and congestion in the town centre, which will in turn reduce journey times by bus. The environment for walking and cycling trips to the station will also be more pleasant with less traffic on the roads. Access to the existing P&R sites will also be improved which could encourage use of these facilities to access the station, removing further vehicle trips from the town centre.

7.12.13 In addition, the promotion of more sustainable modes of transportation such as walking, and cycling are an essential part of the package of the delivery of the NWRR. The NWRR will provide a cycle/footway alongside the route of the development which will link into existing cycle and pedestrian infrastructure. The proposals will see 7 km of new cycleways, bridleways and footpaths added to the North of Shrewsbury.

7.13 Noise, Vibration and Nuisance

7.13.1 Noise and disturbance emanating from the both the construction phase

and the future use of the completed road have been raised as a significant concern. Paragraph 185(a) of the NPPF states that planning decisions should mitigate and reduce to a minimum any potential adverse impact resulting from noise from new development and avoid noise giving rise to significant adverse impacts on health and the quality of life.

7.13.2 Policy MD8 of the SAMDev Plan specifically references support for new strategic transport infrastructure to deliver national priorities and locally identified requirements, where its contribution to agreed objectives outweighs the potential for adverse impacts from noise and vibration.

7.13.3 At this stage, the precise plant and equipment which may be used in the construction of the proposed scheme is not precisely determined as the principal contractor would set out detailed construction methods and plant/equipment requirements. In practice, the plant items identified would move around the site, operating at different times, durations and locations on any one day.

7.13.4 The construction noise and vibration assessments have required assumptions of the construction plant items which would be anticipated for the different work phases. Published or measured noise level data for each plant item and typical on-times have been used as the basis for the construction noise calculations at each receptor for each work phase.

7.13.5 The construction work is currently targeted to commence in Spring 2024 and continue until road opening in Autumn/Winter 2025. Full project completion is planned for Spring 2026 Works between Shepherd's Lane and Clayton Way, and B4380 Holyhead Road to River Severn are likely to have the greatest impact due to being more densely populated with receptors closer in proximity.

7.13.6 For the proposed scheme roundabout works, the general sequence is to construct the off-line works as far as practicable during daytime working hours, for which the commencement is driven by the completion of the associated earthworks. Once this new space has been created, a series of night works are planned to tie in the existing layout to the new layout and move the traffic onto the new layout. Following this, the works to modify the existing and complete the new layout would take place under traffic management on the network, predominantly under off-peak (09:30 to 15:30) working hours. Once the infrastructure is completed, a series of night-time closures would be required to carry out the surfacing activities.

7.13.7 It has been assumed that away from the junctions, the new or improved carriageway works would progress more rapidly along the proposed scheme, and hence would be alongside any one receptor location for a shorter period.

7.13.8 It has been assumed that away from the junctions, the new or improved carriageway works would progress more rapidly along the proposed scheme, and hence would be alongside any one receptor location for a shorter period.

7.13.9 Only where dwellings are very close to the works is there likely to be the potential for vibration impacts depending on the particular plant machinery used. However, the potential impacts are considered on an activity-by-activity basis according to the intensity of the process and the distance at which vibration could be perceptible. It is considered that these impacts from the build out can be adequately mitigated against through the Construction Environmental Management Plan (CEMP) which will be required by condition.

7.13.10 Construction traffic can have a temporary impact on sensitive receptors located along existing roads used by these vehicles. The potential for such impacts is dependent on the volume and route of construction traffic. Planned diversions or night-time road closures are only anticipated for very short periods to tie in the proposed scheme to the existing network road. It is considered that the impacts of build out phase of the NWRR can be mitigated and controlled through the imposition of a suitably worded condition requiring the submission and approval of a CEMP, prior to commencement of work on site.

7.13.11 Turning to the operational phase once the NWRR is complete and open to traffic, it is anticipated that adverse operational road traffic noise impacts will occur where the proposed scheme alignment is closest to noise sensitive receptors, particularly those not currently experiencing road traffic noise from existing heavily trafficked roads.

7.13.12 Conversely, there would be some locations where the introduction of the proposed scheme would cause a reduction in flow on the existing local road network due to traffic re-routing causing alleviation; thus, traffic noise levels at those localised receptors would reduce and they would experience beneficial operational road traffic noise impacts.

7.13.13 Remodelling of operational noise (traffic noise) impacts has been undertaken based on the redesigned carriageway, a shortened viaduct span and design and removal of a crawler lane. The remodel of noise impacts has suggested very modest benefits of the noise impact of the proposed scheme and no increase in a detrimental impact compared to original proposals submitted in February 2021.

7.13.14 The assessment identifies 401 dwellings will experience a noise increase of 1-2.9dB on current noise levels and be within the LOAEL (Lowest Observable Adverse Effects Level) to SOAEL (Significant observed Adverse Effect Level) category. 7 properties will be above the SOAEL threshold because of the 1-2.9dB increase adding to already known noise levels. The 1 to 2.9 dB increase in road noise will be received by 3,149 dwellings, but they will still be under the threshold LOAEL category.

7.13.15 21 dwellings will experience a more significant noise increase of 3 – 4.9 dB on current noise levels and be in the LOAEL to SOAEL category. 1 property will be in the SOAEL because of that increase. This has been identified as Shelton Lodge.

7.13.16 330 Properties, in the short term, are modelled to have an increase greater that 5dB (though one has to look at the appendix map for specificity of by how much greater than 5dB). Of these, 310 dwellings will still be below the threshold of Lowest Observable Adverse Effects Level whilst the other 20 will be in the category range of above the LOAEL, but below the Significant Observable Adverse Effect Level

7.13.17 The locations are anticipated as being at Shepherds Lane, The Copse, Shelton Gardens, Capel Close, Dalton Drive, Beaufort Ridge and Mountwood Park.

7.13.18 As the new circumstances are relatively subtle, from an operational road noise perspective, the outcome is considered to be minor in terms of adverse noise impacts (There was no further information on construction phase noise which is likely to remain unchanged, but I note that due to the change of viaduct structure and material that CFU piling is to remain the method of piling which will reduce noise impacts of this element of construction.)

7.13.19 The NWRR, will have an inevitable traffic noise impact on a number of properties, which the report and addendum and appendix maps submitted with the applcation have identified. Where a new road is introduced andthere is minimal existing road networks, there will be an increased noise impact. However, this needs to be balanced against the properties which have been modelled to be beneficiaries due to the NWRR reducing traffic in other areas based on modelling. Whilst, noise mitigation measures form part of the proposals there will be some properties which experience a greater impact as a result of the scheme.

7.13.20 Clearly, mitigating against the noise impacts of the road is an important element of the overall design of the scheme. As part of this a series of measures have been put forward by the applicant to address the issue of noise impacts arising from the development. These include low noise surfacing, acoustic fencing and mounding along the length of the road to reduce noise impacts from the development and making grants available to qualifying properties to improve sound insulation under the Noise Insulation Regulations (NIR) 1975 to properties along the route identified as being adversely impacted by increased noise and disturbance as a result of the development. Those elements of mitigation within the application boundary can be secured by way of planning conditions. There is also the ability for homeowners impacted by noise from the future NWRR to apply to the Highway Authority for sound insulation measures to be installed.

7.14 Historic Environment

7.14.1 The Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended 2009) sets out the legal requirements for the control of development and alterations which affect listed buildings or conservation areas (including buildings of heritage interest which lie within a designated Conservation Area). Grade I buildings are of exceptional interest. Grade II* are particularly significant buildings of more than special interest. Grade II are buildings of special interest.

7.14.2 Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 (the Listed Buildings Act) states: "*In considering whether to grant planning permission for development which affects a Listed Building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses*".

7.14.3 Section 72(1) addresses the general duty with respect to conservation areas in the exercise of planning functions. It states that "*special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area*".

7.14.4 Section 16 of the NPPF deals with 'Conserving and Enhancing the Historic Environment'. The NPPF recognises that heritage assets are an irreplaceable resource. Para 189 identifies the importance of preserving heritage assets as these are an irreplaceable resource. They should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations. The definition of 'designated heritage assets' in the NPPF includes Registered Parks and Gardens.

7.14.5 Para 190 identifies that in determining applications, local planning authorities should take account of: a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conversation; b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and c) the desirability of new development making a positive contribution to local character and distinctiveness

7.14.6 Para 194 states that in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

7.14.7 Para 195 goes on to state that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.

7.14.8 Para199 requires that. *'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance*.'

7.14.9 Para 202. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal.

7.14.10 Para 203. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

7.14.11 Para 205. Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

7.14.12 Policies MD13 of the SAMDev Plan and CS6 and CS17 of the Core strategy specifically reference the historic environment. Policy MD13 which goes beyond what is set out in the NPPF, seeks to protect the county's heritage assets ensuring wherever possible that proposals avoid harm or loss of significance to designated or non-designated heritage assets, including their settings. Where proposals are likely to have an adverse effect on the significance of a designated heritage asset, including its setting, will only be permitted if it can be clearly demonstrated that the public benefits of the proposal outweigh the adverse effect. In making this assessment, the degree of harm or loss of significance to the asset including its setting, the importance of the asset and any potential beneficial use will be taken into account. Where such proposals are permitted, measures to mitigate and record the loss of significance to the asset including its setting and to advance understanding in a manner proportionate to the asset's importance and the level of impact, will be required.

7.14.13 It should also be noted that Policies CS6 and CS17 of the Core Strategy are relevant considerations in relation to the historic environment, although these are more generic policies than Policy MD13, they do reference the important role that heritage assets play in defining the quality of the environment.

7.14.14 Turning to the consideration of the proposals and their impact on the historic environment, it is important to note that a number of heritage

assets have been scoped out based on professional opinion and observations from site inspection and visualisations (Chapter 12: Landscape and Visual of the ES). Several factors have been considered in determining whether the effects of the proposed scheme are likely to be insignificant or otherwise on built heritage assets or the contribution of setting to the significance of heritage assets. These include:
▪ Direct physical effects to a built heritage asset resulting in substantial harm to their ’heritage significance' as a result of alteration, partial demolition or loss;
▪ The nature and scale of the proposed scheme;
▪ The location and the Zone of Theoretical Visibility (ZTV);
▪ Visualisations of the proposed scheme;
▪ Proximity; considering that the greater the distance a built heritage asset is from the application boundary, the more diminished the visual effects are likely to be;
▪ The location and position of intervening development, infrastructure, vegetation and landscape features; and
▪ The location and direction of key views likely to contribute meaningfully ’to a particular asset's significance.

7.14.15 The list of those built heritage assets scoped out of further assessment is as follows:

- Harlescott Grange Moated Site (Ancient Monument) is located approximately 585m to the east of the Application Boundary. Views from the asset toward the proposed scheme are prevented by its location wit[hi]n an area of late 20th century residential development”.
- Albright Hussey (Listed Grade ll*)
- 1-6, Rosehill (Listed Grade ll)
- Corner Farmhouse 9Listed Grade ll)
- Garden Wall adjoining Albright Hussey to the South-east (Grade ll)
- Short section of Garden Wall approximately 15 metres to south-east of Albright Hussey (Grade ll)
- Milepost approximately 190 metres to northwest of North Lodge (Grade ll)
- Milestone approximately 350 metres to north-west of Bicton House (Grade ll)
- Milestone approximately 160m to the south-east of the Four Crosses Public House (Grade ll)
- Moat retaining wall and bridge approximately 10 metres to south of Albright Hussey (Grade ll)
- Icehouse at SJ 491 138, Coton Hill Farm (Grade ll)
- 5,6 and 7, Holyhead Road (Grade ll)
- Chapel at Shelton Hospital (Grade ll)
- Shelton Hospital (Grade ll)
- 1-4, Holyhead Road (Grade ll)
- Shrewsbury Lodge, Onslow Park (Grade ll)
- Stable Block, Garden Wall and Dovecote adjoining Onslow Hall to the south-east (Grade ll)
- Bicton House (Grade ll)
- Garden Wall approximately 15 metres south of Albright Hussey (Grade

ll)
- Mytton Villa (Grade ll)
- Harlescott Conservation Area
- Church of the Holy Trinity, Bicton (Grade ll)
- Oxon Hall (Grade ll)

7.14.16 In terms of the NWRR, in relation to Policy MD13 of the SAMDev Plan and NPPF 203 and 205, below ground archaeological interest is a significant consideration. This desk-based study assesses the impact on buried heritage assets (archaeological remains) and above ground heritage assets (structures and landscapes of heritage interest) within or immediately around the application boundary. It also considers the impact of the development on the significance of designated heritage assets within and beyond the application boundary as a consequence of any effects upon their settings (e.g. the Registered Battlefield for the Battle of Shrewsbury, Berwick Park Registered Park and Garden, listed buildings and designated Conservation Areas).

7.14.17 There are no statutorily designated heritage assets within the application boundary itself. The nearest asset is the late 18th century/early 19th century Grade II Berwick Park Registered Park and Garden which lies adjacent to the application boundary.

7.14.18 Above ground heritage assets that may be affected by the proposed scheme comprise:

- **Berwick Park Grade II Registered Park and Garden**, a late 18th/early 19th century landscape park associated with the Grade II* listed Berwick House and 11 other individually designated heritage assets**;**
- **Battlefield, Registered Battlefield,** At its closest point to the application boundary, the battlefield is located 400m to the north-east.
- **Gravelhill, Grade II listed building**, a house with probable late 17th century origins;
- **Rose Villa, Grade II listed building**, an early 19th century house**;** and
- **Christ Church, Grade II listed building**, a church built in 1854 in an Early English style**.**
- **Shrewsbury Conservation Area,** At its closest point the Conservation Area lies 320m south of the application boundary.

7.14.19 The proposed scheme would include the reprofiling of the River Severn floodplain to create a flood storage area which is located adjacent to the Berwick Park Registered Park and Garden. Following the reprofiling the land would be returned to arable farmland with water only being retained by the flood storage area during flood events. The proposed scheme would also introduce a new structure, traffic noise and lighting into the setting of both Berwick Park and Gravelhill, mitigated by a road cutting and tree planting which would offset some of the visual and noise impact to these two assets. It would also include the removal of part of approximately 100m of a shelter belt, probably planted in the early to mid-19th century adjacent to Berwick Road, and the partial infilling of Willow Pool. These features, located outside the Registered Park and Garden, form part of landscaping

within the wider Berwick estate to complement the parkland and to visually express the influence of the Powys family over this landscape.

7.14.20 The conclusion overall, is that the proposed scheme would result in less than substantial harm to the Grade II Berwick Park Registered Park and Garden and no harm to Berwick House (Grade ll*) the 11 Grade II listed buildings. The proposals will also result in less than substantial harm to the setting of Gravelhill (Grade ll). Lighting mitigation, in the form of rear shields, would be confirmed during the detailed design stage, to minimise impacts on these heritage assets during hours of darkness.

7.14.21 The impact on the Battlefield during the operational phase would be limited by distance, topography and intervening vegetation. The proposed scheme would not alter the historical relationship between the battlefield site and Haughmond Abbey to the east, nor its relationship with the adjacent medieval manor of Albright Hussey to the west. No additional lighting is proposed to the north of the existing Ellesmere Road roundabout. There would be an increase in traffic and a minor increase in noise levels along the A5124 Battlefield Link Road to the south of the Registered Battlefield.

7.14.22 The heritage value of the Registered Battlefield is considered high, and the magnitude of change to its setting is minor. Therefore, there would be a permanent, long-term slight adverse effect on the asset, equating to less than substantial harm to its significance, which needs to be weighed against the public benefits of the scheme in accordance with the NPPF.

7.14.23 Turning to Gravelhill at the operational phase, the views of the surrounding landscape from Gravelhill farmhouse would be largely obscured by the existing tall hedgerows and mature garden planting to the west and south, and by the existing farm buildings and existing shelter belts to the north and north-west. The setting of the property makes a moderate contribution to the value of the asset by retaining its economic relationship with the farmland around it. The proposed scheme would intrude into the rural setting of the property, and whilst views of the proposed scheme would be limited to the northwest of the asset it would introduce increased traffic noise as well as lighting associated with the proposed B5067 Berwick Road Roundabout. Lighting effects may, however, be filtered by distance and the existing shelter belts. The proposed scheme includes a road cutting along the western section of the route north-west of Gravelhill. LED lighting, a directional light source with minimal light spillage, and rear shields to the lighting columns would be utilised along the Berwick Road north of the proposed B5067 Berwick Road Roundabout to reduce lighting effects during the nighttime. In addition, rear shields to the lighting columns would also be utilised along the section of the proposed scheme to the south of the proposed B5067 Berwick Road Roundabout These embedded mitigation measures would further reduce the lighting, noise and visual impact of the proposed scheme on Gravelhill.

7.14.24 The heritage value of Gravellhill is medium and the magnitude of change is minor adverse. Therefore, there would be an indirect, permanent, long-term slight adverse effect on the asset, thus causing less than substantial harm to its significance.

7.14.25 The anticipated reduction in traffic along A458 Welshpool Road would slightly reduce the visual and noise impacts on the Grade II listed Rose Villa and Christ Church as well as on The Mount section of the Shrewsbury Conservation Area and its four Grade II listed buildings. Therefore, there would be an indirect, permanent, long-term slight beneficial effect on these three heritage assets.

7.14.26 Ivy Cottage, located immediately east of the B5067 Berwick Road, is a small roadside dwelling of likely 19th century date set within a small plot that is considered to be a non-designated heritage asset. A new farm access track would be constructed around Ivy Cottage as part of the Proposed Scheme, which at its closest point would be located 13m of the building. It would be screened from the Proposed Scheme by existing tree cover but there would be an increase in traffic noise.

7.14.27 The heritage value of Ivy Cottage is considered to be low and whose setting makes a low contribution to its significance. However, as a result of the increase in traffic noise it considered that the Proposed Scheme would cause less than substantial harm to its significance.

7.14.28 Archaeological evaluation has been undertaken in 2006–2007 (geophysical survey and archaeological trial trenching), 2018–2019 (geophysical survey and archaeological trial trenching), 2019–2020 (geophysical survey) and 2021 – 22 (archaeological trial trenching). The investigations identified a number of below ground archaeological features. These were predominantly of either post-medieval or undated agricultural origin, and which are assessed as being of limited significance. However, at two locations archaeological remains of greater significance have been identified: - :

- A complex of cropmark ring ditches and enclosures south of Berwick Park. Geophysical Survey in 2006 identified two potential Bronze Age ring ditches, together with an rectangular enclosure of possible Iron Age – Roman date and a potential hut circle of Iron Age date.
  A sub-rectangular enclosure of potential Iron Age – Roman date was east of the B5067 Berwick Road were identified through geophysical survey in 2019-20.

7.14.29 The Applicant has submitted an Archaeological Written Scheme of Investigation. This specifies a programme of archaeological work, comprising ‘strip, map and sample’ excavation, to mitigate the impact of the Proposed Scheme on the two areas of greatest archaeological interest with the Application Boundary, as outlined above. The Council’s archaeological advisor has advised that they consider that they consider that this provides an adequate level of mitigation and recommended a condition to secure its implementation.

7.14.30 Whilst it is accepted that a small number of heritage assets are likely to suffer limited adverse impacts as identified above, it is felt that the overarching public benefits of the scheme outweigh any individual or cumulative material harm to both designated and non-designated heritage

assets resulting from the proposals. It is considered that appropriate conditions can be attached to any permission granted to secure appropriate mitigation in relation to both above and below ground heritage assets to offset any harm identified.

7.15 Economic Development and Growth

7.15.1 The NWRR is a significant and important piece of infrastructure for both Shrewsbury and the wider county as a whole. The NWRR will complete the outer ring road around the county town and provide better connectivity between outlying market towns and settlements, by reducing journey times between them. It will also re-route through traffic away from the town centre allowing for improvements to the environment to make it a more attractive place to live and work and spend time.

7.15.2 The proposed scheme would significantly enhance the resilience of the Strategic Road Network(SRN), particularly when incidents occur on either the SRN or the local highway network. Currently, in the event of congestion, perhaps due to an incident, traffic between the Woodcote and Battlefield roundabouts may be forced to divert onto local roads through the town centre in order to reach destinations to the north and northeast of the town. Similarly, congestion within the town centre may cause traffic which may have otherwise used local roads to reroute onto the SRN in order to reach their destination. In both instances, the proposed scheme provides an alternative which reduces the burden on both the SRN and the local highway network. It would also allow for temporary diversions to be implemented should maintenance or improvement works need to be carried out on the SRN.

7.15.3 The proposed scheme provides the critical highway infrastructure necessary to facilitate residential and employment included in Shrewsbury West SUE Masterplan. The proposed scheme would reduce traffic from Welshpool Road, changing its function and character to serve new and existing developments and would provide an improved environment for Non-Motorised Users. The proposed scheme would assist in meeting economic and housing growth forecast by enabling new residential and employment land to be brought forward as part of the Shrewsbury West SUE.

7.15.4 The proposed scheme would provide a high standard route between locations to the west of the town and employment areas to the north of Shrewsbury (including Battlefield Enterprise Park) and beyond. Similar benefits would also apply to business users wishing to travel between employment locations within Shrewsbury, such as the Oxon Business Park and Battlefield Enterprise Park.

7.15.5 The analysis undertaken as part of the Outline Business Case for the NWRR concluded that transport user benefits expected to accrue over the 60-year appraisal period were significant and related to travel time savings and reductions in vehicle operating costs for both businesses and commuters. A Benefit Cost Ratio (BCR) of 5.33 was calculated for the Proposed Scheme which represents very high value for money according

to Department for Transport (DfT) criteria. In real terms the calculated BCR equates to over £266million of net present benefit as a result of the proposed scheme.

7.15.6 The NWRR would create capacity, reduce delays, and improve journey times both in the town centre and on the SRN thus integrating with, and enhancing the benefits of, other current and anticipated transport investment schemes, including the A49/A5 Dobbies Island junction, the Preston Boats junction, the Emstrey roundabout and the Shrewsbury Integrated Transport Package (SITP). The proposed scheme also presents an opportunity to enhance the town's public transport network, particularly for direct journeys between destinations in the north and west of the town, such as the Royal Shrewsbury Hospital. An assessment of journey times on routes currently served by buses reveals that a number of significant time savings would be likely to accrue as a result of the proposals.

7.15.7 The reduction of through traffic in the centre of Shrewsbury will also create a more conducive environment to attract new business, inward investment and tourism to the town and surrounding locality. At present through traffic travelling to other destinations blights the town centre and the removal of this by diverting it onto the NWRR will assist in providing a more pedestrian friendly environment with better air quality in the town centre.

7.15.8 A number of other major projects that the Council is committed to delivering will benefit with the delivery of the NWRR and it is therefore important that this project is not seen as the delivery of just a piece of transport infrastructure, but as a catalyst for enabling the delivery of several other major projects over the coming years to boost the local economy. These projects include the Shrewsbury Big Town Plan, Riverside and Smithfield, Movement and Public Realm Strategy, Shrewsbury Masterplan Vision amongst others.

7.15.9 The applicant has identified the following economic benefits which will be realised as a result of the scheme.

• Journey time savings, enhanced resilience, reduced congestion and improved safety of the existing Strategy Road Network (SRN).
• The average daily flow on the A528 northbound is predicted to reduce by 22% at the PM peak with the Scheme in place and 23% in the AM peak.
• The proposed scheme could significantly reduce the journey time for the last 3-4 miles into Shrewsbury Town Centre which would make bus travel more attractive.
• The proposed scheme would also increase resilience of the network during traffic incidents, planned maintenance and flood events.
• Traffic reductions along the entry points to the town centre at Welsh Bridge and Castle Gates.
• A route through the town centre via The Mount, Smithfield Road and Chester Street, shows up to a potential 64% reduction in traffic flows in the PM peak compared to without the Scheme eastbound and potential for a 50% reduction in a westbound direction in the 2023 modelled year.
• A peak hour journey from A5 Churncote to A49 Battlefield would take about 7-8 minutes using the NWRR, instead of about 20 minutes through

the town centre or 15 minutes on the bypass.
• A permanent improvement in severance on Oxon Pool and Pool Wood is anticipated.
• The scheme provides the critical highway infrastructure necessary to facilitate development of 750 dwellings and up to 12ha of employment land included in Shrewsbury West Sustainable Urban Extension (SUE) Masterplan via the Oxon Link Road part of the Scheme.
• The scheme would reduce traffic from Welshpool Road, changing its function and character, and would provide an improved environment for Non-Motorised Users (NMUs).
• The scheme would provide a high standard route between locations to the west of the town and employment areas to the north of Shrewsbury and beyond
• The scheme would enhance the town's public transport network, particularly for direct journeys between destinations in the north and west of the town, such as the Royal Shrewsbury Hospital, which will make journeys for emergency vehicles faster and more reliable.
• The reallocation of traffic onto the higher standard NWRR and away from the more urban environment, would improve road safety by reducing the potential for conflicts points while providing improved visibility and segregation for NMUs. • Those dwellings fronting roads that currently experience high road noise levels would reduce in number to 287 dwellings (132 fewer dwellings).
• With the proposed scheme, the reduction in emissions will be larger than without it (a difference of 6.6µg/m3).
• Throughout the scheme, adjacent to the southside of the carriageway for 6.9km, a shared 3m wide footway/cycleway facility will be provided, with additional 0.5m buffer zones to the carriageway and any vertical feature.
• Projected construction employment is likely to be 50 to 100 gross construction employees during the two-year construction period.
• 18% reduction in traffic flows during the morning and evening peak hours on A458 Welshpool Road which can been seem from Christ Church and Rose Villa Listed Buildings, and also the Conservation Area. This would lead to reduced noise and improved air quality, as well as improving views of the road from these heritage assets.

7.15.10 The construction of the NWRR is considered to be an important piece of infrastructure not just for the town of Shrewsbury, but for the county as a whole. The economic, social and environmental benefits and disbenefits have been identified and considered in this report and it is considered that a strong case exists to demonstrate why exceptional circumstances exist.

7.16 Construction Management

7.16.1 The construction phase of the road will inevitably result in a degree of disruption given the scale of the project. As part of the mitigation a Construction Management Plan and a Construction Environmental Management Plan will be required by conditions to ensure that sufficient mitigation is put in place to minimise disruption during the construction phase of the project.

7.16.2 The requirement for the submission and approval of construction

management proposals is a standard way of dealing with these issues as often the main contractor will not be appointed until after planning permission is granted and it is essential to have their input into such plans as how they operate on site is governed by the details of these submissions.

7.16.3 The applicant will only appoint a main contractor to deliver the NWRR once planning permission is granted and funding secured. Therefore, whilst some objectors have insisted on these details being agreed prior to planning permission being granted this is not a practical approach as the main contractor will play a significant role in formulating as well as implementing these plans. Therefore, the imposition of conditions on any planning approval is considered the most appropriate approach to dealing with issues arising from the construction phase and this is standard practice.

7.16.4 The main construction compound is intended to be located within the existing Oxon Park and Ride (P&R) site. The site is within close proximity to the proposed scheme alignment, offers a large area of hardstanding and is within the Applicant's ownership. The main compound would accommodate site office and welfare facilities, in addition to materials storage and laydown areas, construction waste management facilities and parking for site employees.

7.16.5 The impact that the temporary loss part of Oxon Park & Ride site would have on the local highway network is assessed in the Transport Assessment. The Transport Assessment concludes that, on the basis Shrewsbury's P&R sites are understood to be operating under capacity currently, there would be residual capacity for the temporarily relocated trips to reassign from the Oxon P&R site to either Meole Brace and/or Harlescott P&R sites if required although existing use suggests that the reduced capacity would be able to meet existing demand for the most part. It is intended that on completion of the NWRR the Oxon P&R site would become fully operational again.

7.16.6 In addition, two satellite compounds are proposed, one of which would be located to the north-west of the proposed Berwick Road roundabout and one to the north-west of the existing Ellesmere Road roundabout. A number of topsoil storage areas and soil processing sites are intended to be located along the route of the proposed scheme. There would be a number of satellite welfare facilities around the site, particularly close to proposed structures. Welfare facilities would be located to the north-east of the proposed Clayton Way Bridge, to the west and east of the proposed Shelton Roughs River Severn Viaduct, and adjacent to both the proposed Hencott Railway Bridge and Marches Way Accommodation Overbridge.

7.16.7 Topsoil would be stripped as a specific activity during the earthworks phase and would be reused as part of the proposed scheme on embankments, cutting slopes and verges. Wherever possible, surplus excavation arisings have been incorporated in the design to limit the need for the importation of material. Approximately 50,000 cubic metres of imported material would be required in order to facilitate construction.

Wherever practicable, and the design standards permit, the principal contractor would seek to source import materials from recycled and secondary sources. Further information on materials and waste, together with an assessment of the impact of the proposed scheme, is set out in Chapter 14: Materials and Waste of the ES.

7.16.8 As set out in the Transport Assessment, the exact number of construction movements will be confirmed upon appointment of a principal contractor, however, based on pre-construction estimates, it is anticipated that, on an average weekday (between 07:00 and 18:00), there will be a total of 36 two-way HGV movements and 36 two-way LGV movements. On an average Saturday, a total of 18 two-way HGV movements and 18 two-way LGV movements are estimated between the hours of 07:00 and 13:00. In addition to the earthworks and pavement works, construction movements are anticipated to be at their greatest during the importation of bulk materials to the Site which will be during the earlier stages of the project. During these phases there are predicted to be a total of 180 two-way HGV movements and 180 two-way LGV movements on an average weekday (between 07:00 and 18:00) and approximately 90 two-way HGV movements and 90 two-way LGV movements on a Saturday (between the hours of 07:00 and 13:00). The applicant anticipates that maximum movements associated with construction will take place within the first four to six months of the scheme commencing on site and in the last six months prior to completion.

7.16.9 It is intended that construction would commence simultaneously from either end of the proposed road alignment to meet at a halfway point. By undertaking the construction work in this manner this will expedite the completion of the build.

7.16.10 Construction traffic would access the proposed scheme alignment along the primary haul routes along the length of the Site but not over the River Severn. There will be no access from any minor roads other than B4380 Holyhead Road, B5067 Berwick Road and A528 Ellesmere Road or through the surrounding towns and villages. Any construction vehicles accessing and egressing the Site would utilise the Strategic Road Network as far as is reasonably practicable.

7.16.11 The Outline Construction Environmental Management Plan (CEMP), the implementation of which would be subject to a planning condition in the event the LPA is minded to grant planning permission, includes the requirement for a Construction Traffic Management Plan (CTMP) to be developed in detail once a principal contractor is appointed.

7.16.12 The Outline CEMP includes measures to be implemented on site to mitigate temporary environmental effects associated with access to and egress from the site. Such measures include:

- Emergency procedures to cover spills or pollution
- Sensitive working practices and robust pollution prevention control measures in proximity to sensitive locations, including (but not

limited to) the Severn Trent Water surface water intake on the River Severn, Groundwater Source Protection Zones (SPZ) and other sensitive surface water receptors such as Hencott Pool and Oxon Pool;

- Sensitive demolition practices.
- Construction phasing and programming Diversion of local roads, footpaths and public rights of way
- Construction access/haulage routes, parking and traffic
- Construction compounds
- Utilities Diversions
- Private Farm Services
- Working hours and restrictions
- Site security
- Construction Employment
- Site Office and Welfare facilities
- Temporary drainage solutions
- Site clearance
- Earthworks and Site levels
- Construction plant and equipment
- Cranes
- Construction Materials
- Deliveries to site
- Material storage and handling
- Wheel washing facilities
- Lighting
- Construction Waste Management
- Key construction practices
- Health and Safety
- Environmental Procedures and Protections

7.16.13 Having regard to the above, it is considered that the disruption resulting from the construction period can be adequately mitigated against to reduce adverse impacts to an acceptable level over the short term, given the longer term benefits the development will deliver to Shrewsbury and the surrounding locality.

7.17 Future Development

7.17.1 Policy CS2 of the Core Strategy and S16 of the SAMDev Plan set out the growth aspirations for Shrewsbury in the adopted development plan. The emerging development plan 'The Draft Shropshire Local Plan' sets out ambitions up to 2038 for future development in Policies SP2 and S16. However, there are no major allocations in the emerging plan predicated on the construction of the NWRR and it is considered that the provision of this piece of infrastructure is just as likely to unlock sites around other parts of Shrewsbury for future development by creating capacity elsewhere on the highway network.

7.17.2 Concern has been raised that the construction of the NWRR will lead to

further development in the future. The Council as local planning authority is in the process of developing a new local plan which includes site allocations for future development in and around Shrewsbury. This includes a site on Ellesmere Road which is partially reliant on the delivery of the NWRR. No other allocated sites in the emerging local plan are predicated on the delivery of this scheme.

7.17.3 However, it must be recognised that it is incumbent on the Local Planning Authority as part of its statutory duties to allocate sufficient land for future growth to meet Government housing (Para 60 NPPF) and employment targets (Para 85 NPPF) and this is an ongoing requirement. As outlined above the NWRR is not a precursor to the facilitation of additional development in and around Shrewsbury as has been suggested by some opposed to the scheme, however this is not to say that in decades to come the NWRR will not facilitate future site allocations.

7.17.4 It should also be noted that a number of other flagship projects in Shrewsbury will benefit from the delivery of the NWRR. These are outlined above in the Economic Development and Growth section of this report. It is therefore clear that the development of the NWRR is an important component in the delivery of the wider aspirations of the Council and its partners for Shrewsbury.

7.18 Non-Material Issues

7.18.1 Numerous objectors to the scheme have questioned how the road will be funded and suggested that the money allocated for the project could be spent more beneficially on other projects. The function of the planning system is not to scrutinise the cost of development or how it is funded, but to manage the impacts of developments for the public good. To secure the funding from the Government for the project the applicant needs to present a robust business case to the Department of Transport. How a development is funded or how much it costs is not a material planning consideration. In the last few weeks the Government has announced it will be funding the NWRR in full. Exact details are awaited but that may alleviate the concerns of some.

7.18.2 Objectors have also raised the issues of a lack of alternative proposals. The applicant has engaged in an extensive public consultation process over several years before deciding on the chosen route which is the subject of this application. The current route whilst resulting in significant adverse environmental impacts through the loss of irreplaceable and priority habitats has been chosen following several rounds of consultation and various studies around the impacts of the proposals. Section 2 of this report looks at the background to the alternatives considered and the rationale for the chosen route which is the subject of this application. Whilst, it is accepted that the alignment of the NWRR will inevitably have substantial impacts, the route has been chosen to minimise these, as other options were likely to have resulted in greater impacts, particularly in relation to the environment. Non-Road based options were also considered as part of the options appraisal but these were not found to deliver anywhere near the benefits of the NWRR as set out in the outline business

case.

7.1.8.3 The role of the local planning authority is to determine planning applications submitted for its consideration having regard to the development plan and any other relevant material planning considerations. It is not its role to question why alternatives have been discounted, but to assess the application submitted and make a decision based on the acceptability of the proposals and suggested mitigation put forward.

7.19 The EIA Directive and the EIA Regulations

7.19.1 The EIA Directive defines the procedure by which information about the environmental effects of a development is collected and considered by the relevant decision-making body before consent can be granted. It applies to a wide range of public and private projects, which are defined in Annexes I and II of the Directive. The most recent EIA Directive is 2014/52/EU, which came into force on 15 May 2014.

7.19.2 The EIA Directive is transposed into law by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations), which came into force on 16 May 2017.

7.19.3 The EIA Regulations establish the minimum information to be supplied by an applicant within an ES, as well as information that can be requested as being reasonably justified in the circumstances of the case. Regulation 14 and Schedule 4 of the EIA Regulations set out the information required in an ES. This is reinforced by Regulation 3(2), which sets out the core duty of the decision maker in deciding on EIA development. It states that the decision maker "*must not …grant planning permission or subsequent consent for EIA development unless an EIA has been carried out in respect of that development.*"

7.19.4 The proposed development is EIA development under Schedule 2 of the EIA Regulations. As set out in Section 3.11, parts of the ES were updated during the Application process.

7.19.5 All the submitted environmental information has been taken into consideration, as defined in Regulation 2 of the EIA Regulations including the ES and all other information received during the application process. It is considered that sufficient information has been submitted by the applicant to allow full consideration of the environmental impacts of the scheme under the EIA regulations and this has been confirmed by an independent assessment undertaken on behalf the local planning authority by Waterman.

7.19.6 As part of the review of the ES submitted by the applicant, Waterman were tasked with reviewing the documentation supplied by the applicant, the comments of statutory consultees and the comments received from BeST (Better Shrewsbury Transport) in relation to perceived inadequacies in the ES. Following the initial review, a process of clarification was undertaken with the applicant and consultees. The final report concluded that there was sufficient information in the ES to reach reasoned conclusions on the

impacts on the environment and there was no need to seek additional information under Reg.25.

7.19.7 All consultees apart from the EA have indicated they are content to deal with outstanding issues via appropriate pre-commencement conditions as they consider they have sufficient information to make an informed judgement. It should also be noted that whilst the EA continue to maintain their stance in relation to requiring more information, they have indicated they will enter into dialogue with regards to conditions should the planning committee be minded to grant planning permission for the NWRR.

8.0 CONCLUSIONS

8.1 The NWRR is identified within the adopted development plan as an aspirational piece of infrastructure for Shrewsbury. There are several references in the supporting text to the Development Plan referencing the NWRR. Clearly, the delivery of this piece of infrastructure needs to be considered in light of the Development Plan read as a whole and all other material planning considerations.

8.2 The proposal has significant implications in relation to the future growth of Shrewsbury and this is reflected in the weight of public interest in the North West Relief Road scheme. It is the role of the planning system to weigh the benefits and disbenefits of any proposals to reach a balanced view, ensuring that benefits are maximised, whilst ensuring that disbenefits are minimised or mitigated against.

8.3 The Local Planning Authority has sought to work proactively with the applicants as required by paragraph 38 of the NPPF to minimise the impact of the proposals on the environment through appropriate mitigation and changes to the scheme to address the comments of consultees and other interested parties.

8.4 The nature of the proposal has resulted in a significant level of public interest with support both for and against the scheme. This is summarised in section 5 of the report above.

8.5 In considering the application, the Local Planning Authority has implemented
the requirements set out within the National Planning Policy Framework (Paragraph 38) in seeking solutions to problems identified during the processing of the application. The Local Planning Authority took the following
steps to achieve a positive outcome:

- Carried out wide ranging consultations.
- Secured amendments to address concerns raised.
- Agreed a suite of conditions to control development.

8.6 In terms of weighing up the planning balance for the proposed NWRR there are numerous impacts that need to be considered in reaching any

decision on this application. With this in mind it is felt that a recap of the benefits and disbenefits of the NWRR should be set out at this point.

8.7 In respect of the proposed alignment and design of the link road, residual significant adverse impacts from an ecology and amenity perspective have been identified.

8.8 With regard to this the ecology impact resulting from the scheme, the loss of 9 veteran trees (irreplaceable habitat) and priority habitat in the shape of wet woodland is of concern A compensation strategy and substantial mitigation is proposed in response to this harm to the natural environment. The loss of veteran trees needs to be justified in the first instance by the existence of '*wholly exceptional reasons*' under para.180c. Assuming these reasons are deemed wholly exceptional then a secondary test is that '*a suitable compensation strategy*' also exist. In this case the 'wholly exceptional circumstances' are considered to arise out of the provision of a major piece of transport infrastructure which will deliver significant public benefits.

With regard to this the ecology impact resulting from the scheme, the loss of 9 veteran trees (irreplaceable habitat) and priority habitat in the shape of wet woodland is of concern A compensation strategy and substantial mitigation is proposed in response to this harm to the natural environment.

8.9 Wet woodland is a UK priority habitat and an area of approximately 0.62ha will be lost due to the proposed scheme. As per policy MD12, the mitigation hierarchy must be followed. Avoidance and mitigation have been shown to be unfeasible therefore compensation must be provided to be in accordance with local policy.

8.10 Like for like replacement is required for UK priority habitats and as per the DEFRA Biodiversity Metric, however, opportunities to create a new area of wet woodland planting have been explored, but to date, no local sites (ie within 2km of the scheme) have been found to be suitable. Therefore, the current application does not provide compensation for the loss of wet woodland.

8.11 The applicant in putting forward a scheme that does not provide like for like compensation, has sought to provide justification as to why they are not able to provide this. Taking into account factors such as proportionality and feasibility it is considered that the justification is robust and the loss of 0.62ha of wet woodland is considered to be outweighed by the benefits of the scheme, however suitable alternative compensation must be provided. This would need to be of the Broad Habitat type of Woodland, as per the DEFRA Biodiversity Metric. Broad-leaved woodland planting would meet these criteria. A condition requiring the planting of the requisite units of broadleaved woodland, to compensate for the loss of wet woodland units should be attached to any permission, if it is considered that like for like compensation has been demonstrated as not reasonably possible to deliver.

8.12 It is considered on balance that the compensation strategy proposed is sufficient taking account of the economic benefits of the scheme against the resultant loss of irreplaceable habitat. The applicant has committed to full delivery of the compensation strategy, and this is considered that this meets the tests set out in para 180c and policy MD12. The compensation strategy will be secured via condition and a Section 106 agreement with landowners of sites not in Council ownership.

8.13 The EA continue to maintain their stance that they require additional information in order to reach an informed opinion on the proposals due to concerns in relation to the contamination of the drinking water borehole and the adequacy of the ES. STW who have been much more closely engaged in the process, are sufficiently assured as to recommend pre-commencement conditions and deal with issues such as the turbidity protocol and road drainage. The Lead Local Flood Authority is content with the approach taken so far and is again content to deal with outstanding matters via pre-commencement conditions.

8.14 Giving the view of the EA as a statutory consultee great or considerable weight and taking account of the outstanding concerns of the EA and their reticence to proactively engage with the LPA and applicant on these matters, the LPA commissioned an independent third-party review of the ES to satisfy itself that it had sufficient information to move to determination. The Waterman report found after a clarification process with the applicant that the information contained within the ES was complete and included everything that is necessary to make an informed decision.

8.15 The nature of this project means that as detailed designs are worked up additional information, will become available and this will feed into discharging the pre-commencement and other conditions attached to any planning permission should it be granted. The EA stance has been to require this information in advance of determination, and it is not practical for the applicant to supply this given the time constraints and expenditure this would result in without certainty around planning. The EA have indicated that they are prepared to discuss the imposition of conditions following a resolution from the Planning Committee and it is considered that this offers an approach, giving appropriate weight to the EA's concerns that will allow the application to move forward for determination.

8.16 As many objectors have pointed out Shropshire Council declared a climate emergency in May 2019 which included an ambition to be carbon neutral as an authority by 2030. The NWRR project is considered to be incompatible with these ambitions by many, however the Council in choosing to pursue this scheme has made a commitment to own all the resultant carbon produced both from the build and when it is operational.

8.17 In terms of identified adverse impacts to noise levels, receptors located adjacent to the proposed scheme are predicted to experience increases in noise levels which are simply either not possible or feasible to further mitigate. However, this must be balanced against considerable number of properties which would benefit from reduced traffic on other roads. It is

therefore considered that satisfactory mitigation can be secured via appropriate conditions to reduce the noise impact on nearby receptors although it is acknowledged that some will still suffer harm as a result of the NWRR. However, this needs to be balanced against the fact that a greater number of properties will benefit from a reduction in noise, along with the wider public benefits the scheme will deliver. Clearly, these adverse impacts on the amenities of those living nearby, conflict with the objectives of policy CS6 but it is considered that the greater public benefits override these concerns.
In terms of identified adverse impacts to noise levels, receptors located adjacent to the proposed scheme are predicted to experience increases in noise levels which are simply either not possible or feasible to further mitigate. However, this must be balanced against considerable number of properties which would benefit from reduced traffic on other roads. It is therefore considered that satisfactory mitigation can be secured via appropriate conditions to reduce the noise impact on nearby receptors although it is acknowledged that some will still suffer harm as a result of the NWRR. However, this needs to be balanced against the fact that a greater number of properties will benefit from a reduction in noise, along with the wider public benefits the scheme will deliver. Clearly, these adverse impacts on the amenities of those living nearby, conflict with the objectives of policy CS6 but it is considered that the greater public benefits override these concerns.

8.18 Turning to Air Quality impacts it is accepted that properties situated close to the route of the NWRR will be adversely impacted by the development. However, it is considered that the proposals will result in betterment for a greater number of properties that already suffer from poor air quality as a result of traffic particularly in the town centre and adjoining urban areas. Clearly, the provision of a new road as proposed will have an impact on residents living along the route, however it is consider that overall the development will result in betterment for a majority with a minority suffering reduction in air quality.

8.19 The Environmental Statement submitted under the EIA Regulations to support the application, has been independently reviewed on behalf of the LPA and is considered to be both comprehensive and robust containing sufficient information to allow the LPA to make a reasoned and rationale decision based on the environmental impacts of the proposals.

8.20 Overall, whilst there is strong policy support for the NWRR, it is considered that the need for the NWRR and the public benefits which would be realised from its construction need to be weighed in the context of the significant impacts which are not able to be mitigated, compensated or offset fully. The role of the Local Planning Authority is to consider the application before it and weigh the planning balance to come to a reasoned decision having regard to planning policy and other material planning considerations. It is not for the LPA to revisit route alignment decisions already taken by the applicant.

8.21 Having regard to the above, while there are parts of the scheme which do not accord with the Local Plan it is considered the scheme is not a

departure. It is considered that on balance the public benefits and the exceptional circumstances arising from the proposals outweigh the harm resulting from the development overall and therefore having regard to the adopted development plan and other material planning considerations the recommendation is to grant planning permission for the development subject to securing a comprehensive package of appropriate safeguards, mitigation, compensation and enhancements by way of appropriate planning conditions and a S106 between the applicant and specified third parties to secure mitigation and compensation strategies on land not in the control of the Council . Details of this are set out below in Appendix 1.

9.0 Risk Assessment and Opportunities Appraisal

9.1 Risk Management

There are two principal risks associated with this recommendation as follows:

- The decision may be challenged by way of a Judicial Review by a third party. The courts become involved when there is a misinterpretation or misapplication of policy or some breach of the rules of procedure or the principles of natural justice. However, their role is to review the way the authorities reach decisions, rather than to make a decision on the planning issues themselves, although they will intervene where the decision is so unreasonable as to be irrational or perverse. Therefore, the courts are concerned with the legality of the decision, not its planning merits. A challenge by way of Judicial Review must be made a) promptly and b) in any event not later than six weeks after the grounds to make the claim first arose. This risk needs to be balanced against the risk of not proceeding to determine the application.

9.2 Human Rights

Article 8 gives the right to respect for private and family life and First Protocol Article 1 allows for the peaceful enjoyment of possessions. These have to be balanced against the rights and freedoms of others and the orderly development of the County in the interests of the Community.

First Protocol Article 1 requires that the desires of landowners must be balanced against the impact on residents.

The LPA have also had regard to the provisions of the Human Rights Act 1998. We consider that the opportunity for objectors to make their cases through the planning application process fully, fairly and in public has ensured compliance with Article 6. In some cases, there would be interference with private and family life and home in contravention of Article 8, and interference in the peaceful enjoyment of possessions in contravention of Article 1 of the First Protocol of the Human Rights Act 1998.

However, with the weight of exceptional circumstances coupled with planning policy in favour of the Proposed Development, along with the wider public interest justifies any interference with the human rights of the owners and occupiers affected by the proposals. The interference in their human rights would be proportionate and justified in the public interest.

This legislation has been taken into account in arriving at the above recommendation.

9.3 Equalities

The concern of planning law is to regulate the use of land in the interests of the public at large, rather than those of any particular group. Equality will be one of a number of 'relevant considerations' that need to be weighed in Planning Committee members' minds under section 70(2) of the Town and Country Planning Act 1990.

The proposal for the NWRR will provide for the needs and interests of the public at large, for example, how they use the highway network in Shrewsbury. Any impacts on footpaths, bridleways, cycleways and any other access routes have been taken into account and given appropriate weight in the consideration of the application.

The LPA have had regard to the Public Sector Equality Duty (PSED). The Proposed Development does not harm the interests of persons who share a protected characteristic or have any adverse effect on the relationships between such persons and persons who do not share a protected characteristic. On that basis, there would be no breach of the PSED.

10.0 Financial Implications

10.1 There are likely financial implications if the decision is challenged by a judicial review. The costs of defending any decision will be met by the authority and will vary dependent on the scale and nature of the challenge.

10.2 Local financial considerations are capable of being taken into account when determining a planning application – insofar as they are material to the application. The weight given to this issue is a matter for the decision maker.

11.0 Background

Relevant Planning Policies

Central Government Guidance:
National Planning Policy Framework (2023)

Core Strategy and Site Allocations and Management of Development (SAMDev) Plan:
Policy CS1: Strategic Approach 35 Policy
CS2: Shrewsbury Development Strategy CS5: Countryside and Green Belt
Policy CS6: Sustainable Design and Development Principles
Policy CS7: Communications and Transport

Policy CS8: Facilities, Services and Infrastructure Provision
Policy CS13: Economic Development, Enterprise and Employment
Policy CS17: Environmental Networks
Policy CS18: Sustainable Water Management
MD1 Scale and Distribution of Development
MD2 Sustainable Design
MD7b General Management of Development in the Countryside
MD8 Infrastructure Provision
MD12 Natural Environment
MD13 Historic Environment
S16 Shrewsbury

RELEVANT PLANNING HISTORY:

11. Additional Information

View details online: http://pa.shropshire.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=RMKRLMTD0M200

List of Background Papers (This MUST be completed for all reports, but does not include items containing exempt or confidential information)
Cabinet Member (Portfolio Holder) - Cllr Chris Schofield
Local Members Cllr Lezley Picton – Tern Cllr Alex Wagner – Bowbrook Cllr Rob Wilson – Copthorne Cllr Nat Green – Quarry and Cotton Hill Cllr Garry Burchett – Bagley Cllr Jeff Anderson – Harlescott
Appendices APPENDIX 1 – Landowners Party to the S.106 Agreement APPENDIX 2 – Draft Conditions APPENDIX 3 – Glossary Of Terms

APPENDIX 1 - Landowners Party to the S.106 Agreement

- Berwick Estates
- W G Phillips
- Severn Trent Water / Midland Land Portfolio Ltd

Authority is delegated to the Assistant Director of Economy and Place to negotiate the following section 106 Agreement/s

1, to agree a series of woodland management plans at Alkmund Park Wood; Shelton Rough and Oxon Pool prior to the commencement of development of any part of the NWRR(development not to commence until the management plans have been agreed in writing by the LPA) the plans to include the heads of terms as set out in this report and to include provisions guaranteeing access to the above sites to allow review, maintenance, work, and replenishment of the above woodlands.

2, to agree a written management plan for Veteran trees ; to include the term requirements as set in the Compensation strategy submitted as part of the pl application; to include the provision for the ability to intervene to enhance the environment of veteran trees and to enhance the ground environment of the trees; such a plan to be agreed in writing with the LPA and no development commence on the NWRR until the plan has been completed."

The S.106 agreement will provide for the following elements (for land outside Council ownership).Conditions will be used for land within Council ownership The S.106 agreement will provide for the following elements.

The Draft Compensation Strategy presents the suitable compensation measures proposed across four designated habitats, to compensate for removal or likely damage/loss to the roots of veteran trees and the potential air quality impacts as a result of the Proposed Scheme. This Strategy includes the following:

- The introduction of a series of woodland management measures, to be set out in a Woodland Management Plan, to improve the habitat condition of the privately owned Alkmund Park Wood (Ancient Woodland). Enhancement measure will be categorised into either High, Moderate or Low priority and will include measures such as:
    - Improve woodland vertical structure through planting up of storeys where individuals are lacking, for example understorey or shrub layer.
    - Identify and replace absent age classes for example to establish a clear 'young' age category;
    - Increase cover of native tree and shrub species through replacement planting following clearance, storm damage, or within areas of open space;
    - Maintain areas of temporary open space within woodland through strategic coppicing and scrub clearance;
    - Increase natural regeneration within woodland by planting of native standard trees (4-7cm diameter at breast height (dbh)), saplings or seedlings in appropriate areas;
    - Where no veteran trees are present, seek to maintain suitable conditions for tree health and apply protections.
    - Reduce the level of disturbance the woodland is subject to through reducing contributors to nutrient enrichment where viable, soil compaction or instances of excessive animal trampling, in particular around edge habitats.

- Enhancement of the southern edge of Alkmund Park Wood via new woodland edge planting covering an area of approximately 1ha on land in private ownership.
- The introduction of a series of woodland management measures, to be set out in a Woodland Management Plan, to improve the habitat condition of the privately owned Shelton Rough (Local Wildlife Site). Enhancement measure will be categorised into either High, Moderate or Low priority and will include measures such as:
    - Removal of invasive/non-native species where present;
    - Improve woodland vertical structure through planting up of storeys where individuals are lacking, for example understorey or shrub layer;
    - Leave standing or fallen deadwood within the habitat, or distribute amongst survey plots;
    - Reduce the level of disturbance the woodland is subject to through reducing contributors to nutrient enrichment where viable, soil compaction or instances of excessive animal trampling, in particular around edge habitats.
- The introduction of a series of woodland management measures, to be set out in a Woodland Management Plan, to improve the habitat condition of Oxon Pool (Local Wildlife Site) owned by Shropshire Council. Enhancement measure will be categorised into either High, Moderate or Low priority and will include measures such as:
    - Where no veteran trees are present, seek to maintain suitable conditions for tree health and apply protections e.g. fencing around root protection areas to enable existing mature trees to remain in situ and ultimately develop veteran features;
    - Leave standing or fallen deadwood within the habitat, or distribute amongst survey plots.
    - Identify and replace absent age classes for example to establish a clear ‘young’ age category;
    - Increase natural regeneration within woodland by planting of native standard trees (4-7cm dbh), saplings or seedlings in appropriate areas;
    - Improve woodland vertical structure through planting up of storeys where individuals are lacking, for example understorey or shrub layer.
- Bespoke management measures for 26 veteran trees on land in private and Shropshire Council ownership. Bespoke management measures have been included for 19 veteran trees, set out in Annex C of the draft Compensation Strategy, with measures for a further 7 veteran trees to be included in the Final Compensation Strategy. Veteran tree management measures have been split into two interlinked categories:
    - Interventions intended to enhance the rooting environment of veteran trees;
        - Establishment of protective exclusion buffers around veteran tree Root Protection Area (RPA). Subject to

landowner confirmation, buffers would include permanent or temporary barriers which physically prevent further access to the full RPA where practicable.
        - Remedial anti-compaction measures within agreed exclusion buffers to include air injection and hollow tine aeration.
        - A regime of periodic weed control management to minimise competition for resources within the RPA and maintain future benefits of non-cultivated strips;
    - interventions intended to enhance the above ground environment of veteran trees;
        - Localised land use changes in existing woodland or arable fields to eliminate/reduce future disturbance of RPAs and canopies.
        - Creation of new native woodland buffer around Alkmund Park Wood to serve as a physical barrier to nitrogen deposition and increase woodland connectivity between veteran trees.
        - Planted hedgerow trees to reduce browsing pressure by providing alternative sources of shade/shelter for livestock.
        - Phased halo pruning of woodland or surrounding vegetation to give veteran trees more space and encourage lower canopy development over time.
        - Phased pollarding of veteran trees designed to prolong tree lifespan by reducing unsustainable mechanical canopy loads i.e. lapsed pollards around Willow Pool.
        - Remedial pruning of veteran trees located adjacent to the road network or Proposed Scheme.
        - Specialist arboricultural survey work to inform anticipated remedial pruning work.
        - A regime of periodic tree inspection to monitor future tree condition and tree resilience to prescribed interventions within this document.
- The planting of 84 trees in environments specifically managed and protected to provide the best chance for a tree to achieve veteran status. 54 of these trees will be planted at a ratio of 6:1 for each veteran trees that the Proposed Scheme has not been able to avoid removing. The remainder are planted to compensate for the air quality impacts on 14 veteran trees that will not benefit from bespoke management measures. These trees are proposed to be planted across 7 sites in the ownership of Shropshire Council.
- The planting of 4.9ha of Broadleaved Woodland to compensate for air quality impacts on two areas of ancient woodland (Hortonlane Coppice and Woodcote Coppice). This woodland would be planted on land under the ownership of Shropshire Council.

To provide certainty over delivery of the Strategy, which involves sites and trees outside the planning boundary, the locations (listed above) where compensation will take place have been limited to sites and trees on land in the ownership of Shropshire Council and one private landowner. The details of all sites and trees impacted are set out in the Strategy along with the justification for focusing the extent of the proposed enhancements.

The enhancement proposals on private land have been developed in liaison with the landowner who is willing to accommodate the proposals in principle and work with the applicant to produce a Final Compensation Strategy and deliver through a negotiated s106 agreement. The implementation of proposals on Shropshire Council sites will be the requirement of a suitably worded planning condition.

The enhancements will include immediate interventions and on-going management plans with an 80-year duration.

Hencott Pool Mitigation Strategy

Details of the assessment of the air quality impacts on Hencott Pool SSSI and Midland Meres & Mosses Phase 2 Ramsar site and the proposed mitigation measures are predominantly set out in Section 6 – Mitigation of the Air Quality NWRR SEI Report 16.05.23. Further information is also contained in the Habitat Regulation Assessment produced by Shropshire County Ecologist (titled 21-00924 EIA- Habitat Regulations Assessment-5061736).

The proposals seek to mitigate the impact from airborne nitrogen from the operation of the NWRR by removing equivalent airborne impact from existing farming operations (cattle and arable).

The current assessment identifies land around Hencott Pool involving four landowners on which agricultural activity would need to desist. Example of prohibited activities include:

- Keeping animals for any purpose (equestrian, sport etc).
- Any form of agricultural activity (pastoral or arable)
- Storage of agricultural materials

The landowners have indicated that they would prefer to retain ownership of the land and have asked for details of land uses that would still be acceptable and these have been agreed with Natural England and include the following:

- Energy generation i.e. solar panels.
- Leaving ‘fallow’ with annual harvesting of the weeds (and removal off site) to prevent spreading to adjacent agricultural areas.
- Grass harvesting for silage which has not had any fertiliser applied.
- Site compounds and storage of materials for the construction of the NWRR
- Biodiversity Net Gain (BNG) for alternative schemes to the NWRR (with NE consulted as part of that project’s planning permission)

- Woodland planting potentially under a grant arrangement (with NE consulted as part of any HRA requirements)
- Future planning applications which would by definition have a low nitrogen application to the ground and would be subject to all necessary consents.

The mitigation proposals also include shelter belt planting between Hencott Pool and the NWRR. A 20m wide belt of trees will be planted along the northern edge of the NWRR from the railway line to the eastern extent of Hencott Pool. This will impact the two landowners on the south side of Hencott Pool. The mitigation proposals are within the planning application red line boundary and would be delivered in accordance with a suitably worded planning condition. As the areas of land are within the planning boundary CPO powers could be used if necessary, however, this would be a last resort.

The mitigation proposals would have an 80-year duration, subject to a review every 5 years which will allow for the agreement to be terminated if the Proposed Scheme is no longer contributing to a significant adverse effect on Hencott Pool (subject to NE and LPA agreement). This provision recognises that local air quality impacts from motor traffic are likely to reduce significantly as the national fleet moves to a greater proportion of electric vehicles.

Section 6 – Mitigation of the Air Quality NWRR SEI Report 16.05.23 also sets out a commitment on the part of the Applicant to undertake further refinements of the air quality modelling and assessment to try to reduce the area of land over which agricultural activity will have to desist. This further work is ongoing. Subject to agreement from NE the Final Mitigation Strategy will reflect any reductions that can be achieved through the refinement of the modelling and assessment.

APPENDIX 2 – Draft Conditions

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

   Reason: To comply with Section 91(1) of the Town and Country Planning Act, 1990 (As amended).

2. The development shall be carried out strictly in accordance with the approved plans, drawings and documents as listed in Schedule 1 below.

   Reason: For the avoidance of doubt and to ensure that the development is carried out in accordance with the approved plans and details.

3 Prior to the commencement of the development, a Phasing Plan shall be submitted to and approved in writing by the Local Planning Authority (LPA). The Phasing Plan shall present ,the order and time period within which each phase of the approved development will be constructed. Conditions (set out below) that are required to be submitted to the Local Planning Authority for approval shall be submitted to and agreed in accordance with

the sequence set out in the agreed phasing plan. The approved development shall thereafter be implemented solely in accordance with the approved Phasing Plan .

Reason: To allow the development to progress in phases and each relevant condition to be discharged according to the relevant phase.

4. In this condition ‘retained tree’ means an existing tree, woody shrub or hedge which is to be retained in accordance with the approved plans and particulars; and any tree, woody shrub or hedge planted as a replacement for any ‘retained tree’:

a) No retained tree shall be wilfully damaged or destroyed, uprooted, felled, lopped, topped or cut back in any way other than in accordance with the approved plans and particulars, without the prior written approval of the LPA. Any approved tree works shall be carried out in accordance British Standard 3998: 2010 Tree Work - Recommendations, or its current version.

b) Prior to commencement of each phase of the development, as set out in the approved Phasing Plan required under condition 3,a scheme shall be submitted to the written satisfaction of the LPA to safeguard trees, woody shrubs and hedges to be retained on and adjacent the site. The scheme shall be based upon an Arboricultural Impact Assessment and include an Arboricultural Method Statement (AMS) and / or a Tree Protection Plan (TPP), prepared in accordance with and meeting the minimum tree protection requirements recommended in, British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations, or its current version. Any pre-commencement tree works and all tree protection measures detailed in the approved AMS and / or TPP shall be fully implemented to the written satisfaction of the LPA, before any development related equipment, materials or machinery are brought onto the site.

c) The development shall be implemented in accordance with the approved tree protection scheme, AMS and / or TPP. The approved tree protection measures shall be maintained in a satisfactory condition throughout the duration of the development, until all equipment, machinery and surplus materials have been removed from the site.

d) All services and drainage infrastructure will be routed outside the Root Protection Areas indicated on the approved TPP or, where this is not possible, a detailed method statement and task specific TPP will be submitted and approved in writing by the LPA prior to any work commencing on site. Thereafter the development shall be carried out strictly in accordance with the approved method statement and tree protection plan.

e) No works associated with the relevant phase of development, as per the approved Phasing Plan (condition 3) shall commence and no equipment, machinery or materials will be brought onto the site for the purposes of said development until a responsible person has been appointed for day to day supervision of the site and to ensure that the tree protection measures are

fully complied with. The LPA will be informed of the identity of said person.

Reason: to safeguard the amenities of the local area and to protect the natural features that contribute towards this and that are important to the appearance of the development.

5. The approved landscaping scheme shall be implemented as specified and completed prior to completion of the development. If within a period of five years from the date of planting, any tree or shrub, or any tree or shrub planted in replacement for it, dies or, in the opinion of the LPA becomes seriously damaged or diseased, or is otherwise lost or destroyed, another tree or shrub of a similar specification to the original shall be planted at the same place during the first available planting season.

Reason: to ensure satisfactory tree and shrub planting as appropriate to enhance the appearance of the development and its integration into the surrounding area.

6. No development shall commence until a Final Compensation Strategy for ancient woodland, veteran trees and Local Wildlife Sites has been submitted to and approved in writing by the Local Planning Authority. The Final Compensation Strategy shall include the following:

a) A delivery plan and timetable,
b) Costed Woodland Management plans prepared in compliance with the UK Forestry Standard (5th Edition, October 2023),
c) Costed Veteran Tree Management plans, and
d) Costed detailed planting and maintenance plans for compensatory tree planting.

The development shall thereafter be completed in accordance with the approved plans.

Reason: To ensure that a suitable compensation strategy is provided due to the loss and deterioration of irreplaceable assets as per paragraph 180c) of the NPPF and to compensate for unavoidable significant impacts to natural assets as per Local Plan policies MD12 and CS17.

7. No development shall commence until a scheme for the offsetting of wet woodland impacts has been submitted to and approved in writing by the Local Planning Authority. The proposed offsetting scheme shall include:

ii. The identification of an offsetting site or sites which generates a minimum of 12.28 wet woodland or broadleaved woodland biodiversity units in accordance with a recognised biodiversity offsetting metric, and
iii. The provision of arrangements to secure the delivery of offsetting measures, including a timetable for delivery; and
iv. A Woodland Management and Monitoring Plan, to include for the provision and maintenance of the woodland offsetting scheme for a period of no less than 30 years from the date of implementation of the offsite provision. The management and monitoring plan shall include:

a. Description of woodland habitat to be created/enhanced including expected management

condition and total area; and
b. Review of the ecological constraints; and
c. Detailed designs and/or working methods (management prescriptions) to achieve proposed habitats and management conditions, including extent and location of proposed works; and
d. Type and source of materials to be used, including species list for all proposed planting and abundance of species within any seed mix; and
e. Identification of the persons responsible for implementing the works; and
g. A timetable of future ecological monitoring to ensure that the woodland habitats achieve their proposed management condition as well as a description of a feed-back mechanism by which the management prescriptions can be amended should the monitoring deem it necessary.
h. Monitoring reports will be submitted to the Council during years 1, 2, 5, 7, 10, 20 and 30 from commencement of development unless otherwise stated in the Woodland Management and Monitoring Plan demonstrating how the offsetting provision is progressing towards achieving its objectives, evidence of arrangements and any rectifying measures needed.

The offsetting scheme shall thereafter be completed in accordance with the approved details

Reason: To compensate for the loss of wet woodland priority habitat in accordance with the mitigation hierarchy and Local Plan policies MD12 and CS17.

8. No development within 50m of an active badger sett shall take place (including demolition, ground works and vegetation clearance) until either:
   a) a Licence with respect to badgers has been obtained from Natural England and submitted to the Local Planning Authority; or
   b) a statement from an appropriately qualified and experienced ecologist has been submitted and approved in writing to the Local Planning Authority explaining why a licence is not required and setting out any additional mitigation measures required for prior approval. These measures will be implemented as approved.

Reason: To ensure the protection of badgers, under the Protection of Badgers Act 1992.

9. No demolition of West View (B1) or felling/pruning of trees T041, T050, T092 and T150 shall take place until a European Protected Species (EPS) Mitigation Licence with respect to bats has been obtained from Natural England and submitted with the approved method statement to the Local Planning Authority The proposal must be carried out in accordance with the approved information.

Reason: To ensure the protection of bats which are European Protected Species.

10. No works in the relevant phase set out in the Phasing Plan, including clearance of vegetation shall take place until a Construction Environmental Management Plan (Ecology) pertaining to that phase has been submitted to and approved in writing by the LPA. The plan shall include:

a) An appropriately scaled plan showing 'Wildlife/Habitat Protection Zones' where construction activities are restricted, where protective measures will be installed or implemented;
b) Details of protective measures (both physical measures and sensitive working practices) to avoid impacts during construction;
c) Requirements and proposals for any site lighting required during the construction phase;
d) A timetable to show phasing of construction activities to avoid harm to biodiversity features (e.g. avoiding the bird nesting season);
e) The times during construction when an ecological clerk of works needs to be present on site to oversee works;
f) Identification of Persons responsible for:
    i) Compliance with legal consents relating to nature conservation;
    ii) Compliance with planning conditions relating to nature conservation;
    iii) Installation of physical protection measures during construction;
    iv) Implementation of sensitive working practices during construction;
    v) Regular inspection and maintenance of physical protection measures and monitoring of working practices during construction; and
    vi) Provision of training and information about the importance of 'Wildlife Protection Zones' to all construction personnel on site.
g) Pollution prevention measures.

All construction activities shall be implemented strictly in accordance with the approved details and timing of the plan.

Reason: To protect features of recognised nature conservation importance in accordance with MD12, CS17 and section 174 of the NPPF. This a pre-commencement condition to ensure that the wildlife protection zones and protective measures are in place before any other works to ensure that the development does not adversely affect wildlife.

11. Prior to the first use of the road, a landscape habitat and wildlife features management and monitoring plan shall be submitted to, and approved in writing by, the Local Planning Authority. The plan shall include:

a) Description and evaluation of the habitats and features to be managed;
b) Ecological trends and constraints on site that may influence management;
c) Aims and objectives of management;

d) Appropriate management options for achieving aims and objectives;
e) Prescriptions for management actions;
f) Preparation of a works schedule (including an annual work plan and the means by which the plan will be rolled forward annually);
g) Personnel responsible for implementation of the plan;
h) Detailed monitoring scheme with defined indicators to be used to demonstrate achievement of the appropriate habitat and feature quality;
i) Possible remedial/contingency measures triggered by monitoring;
j) The financial and legal means through which the plan will be implemented.

The plan shall be carried out in accordance with the approved details.

Reason: To secure the long-term management of landscaping, habitats and features. in accordance with MD12, CS17 and section 174(d) of the NPPF.

12. No development within each phase of the development (including vegetation clearance, ground works etc), as set out in the approved Phasing Plan required under condition 3 shall commence until a Bat Monitoring Strategy has been submitted to and approved in writing by the Local Planning Authority. The strategy shall include details of bat monitoring to be undertaken in the whole summer immediately prior to the commencement of vegetation clearance and thereafter at appropriate intervals during construction and during operation.
The surveys shall be undertaken in accordance with the approved strategy, and the results of each survey together with monitoring conclusions and any recommendations for additional mitigation measures required shall be submitted to the LPA within 3 months of their completion.

Reason: To monitor the effectiveness of mitigation for bats which are European protected species.

13. No works in the relevant phase set out in the Phasing Plan shall take place and no equipment, machinery or materials will be brought onto site for the purpose of said development until a detailed landscaping scheme pertaining to that phase incorporating suitable and appropriate tree, shrub and hedge planting, grassland and wetland planting prepared in accordance with relevant British Standards has been submitted to and approved in writing by the LPA. The landscaping scheme shall include:

a) A planting schedule, detailing plants/seed mixes, noting species (including scientific names), planting sizes and proposed numbers/densities where appropriate;
b) Details as relevant of ground preparation, planting pit specifications etc
c) Means of protection and support for trees and shrubs
d) Written specifications for establishment of planting and habitat creation;
e) Specifications for, and locations of, badger fencing; and
f) Implementation timetables.

Native species used are to be of local provenance (Shropshire or surrounding counties). The approved landscaping scheme shall be

implemented as specified and completed prior to completion of the relevant phase. If within a period of five years from the date of planting, any tree or shrub, or any tree or shrub planted in replacement for it, dies or, in the opinion of the LPA becomes seriously damaged or diseased, or is otherwise lost or destroyed, another tree or shrub of a similar specification to the original shall be planted at the same place during the first available planting season.

Reason: To ensure the provision of amenity and biodiversity afforded by appropriate landscape design.

14. Prior to the erection of any external lighting on the site, a lighting plan shall be submitted to and approved in writing by the Local Planning Authority. The submitted scheme shall be designed to take into account the advice on lighting set out in the Bat Conservation Trust/Institute of Lighting Professionals Guidance Note 08 23 *Bats and artificial lighting at night.* The development shall be carried out strictly in accordance with the approved details and thereafter retained for the lifetime of the development.

Reason: To minimise disturbance to protected species.

15. Prior to the commencement of development within the relevant phase as set out in the approved Phasing Plan, the following plans shall be submitted to the Local Planning Authority showing:

a) Badger tunnels of a minimum of 600mm in width; and
b) Details of how wildlife will access the mammal ledge provided through Willow Pool Culvert.

The plans shall be implemented as in accordance with approved details.

Reason: To ensure effective mitigation is provided for protected species.

16. Notwithstanding the information on bat roost enhancement detailed in section 4.4 of SEI Jan 23 Appendix 1.H plus indicative locations for bat boxes as shown on SEI Jan 2023 Appendix 1.U, prior to the first use of the development, the makes, models and locations of bat and bird boxes shall be submitted to and approved in writing by the Local Planning Authority. The following boxes shall be erected on the site:

- A minimum of 50 bat roosting boxes or bat roosting features (ie BrandenBark TM) suitable for crevice dwelling bat species.
- A minimum of 50 nest boxes suitable for a variety of bird species recorded in association with the habitats present including (for instance) stock dove, tawny owl, kestrel, tit species etc.

The boxes / roosting opportunities shall be sited in suitable locations, with a clear flight path and where they will be unaffected by artificial lighting. The boxes shall thereafter be maintained for the lifetime of the development.

Reason: To ensure the provision of mitigation and enhancement for bats and birds in accordance with MD12, CS17 and section 174 of the NPPF.

17. No development within each phase of the development, as set out in the approved Phasing Plan required under condition 3 shall take place until a scheme of surface water drainage providing evidence that the proposed

drainage systems serving the NWRR (relevant to that phase) are capable of attenuating all flows up to and including the 1 in 100 40% , whilst maintaining the agreed rates of discharged shown in table 4.2 of the Flood Risk Assessment, has been submitted to and approved in writing by the Local Planning Authority. Where the proposed drainage system connects to an existing highway drainage network, evidence that the receiving system has the capacity to adequately cater for any increased flow up to their point of discharge should be submitted. Where offsite improvements are required to accommodate additional flows these works should be completed prior to any new connections being made. The approved scheme shall be fully implemented before the development is brought into use.

Reason: The condition is a pre-commencement condition to ensure satisfactory drainage of the site and to avoid flooding in accordance with Policy C18.

18. No development within each phase of the development, as set out in the approved Phasing Plan required under condition 3 shall take place until a scheme for dealing with exceedance flows relevant to that phase has been submitted to and approved in writing by the Local Planning Authority. Shropshire Council's "Surface Water Management: Interim Guidance for Developers, paragraphs 7.10 to 7.12" requires that exceedance flows for events up to and including the 1% AEP plus CC should not contribute to surface water flooding of any area outside of the development site. Although the attenuation features have been designed for 1% AEP storms plus climate change, critical storm analysis should be carried out to determine exceedance storage volumes / depths and flow paths within the highway corridor for storms of a greater magnitude than those considered for the highway drainage design. A contour and exceedance route plans should be submitted for approval demonstrating that the above has been complied with. The approved scheme shall be fully implemented before the development is brought into use.

Reason: The condition is a pre-commencement condition to ensure satisfactory drainage of the site and to avoid flooding in accordance with Policy CS18.

19. Where the use of soakaways to drain the public highway are utilised, no development within the relevant phase of the development, as set out in the approved Phasing Plan required under condition 3 shall take place until infiltration testing in line with BRE365 and associated soakaway designs capable of attenuating all flows up to and including the 1 in 100 40% has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be fully implemented before the development is brought into use.

Reason: The condition is a pre-commencement condition to ensure satisfactory drainage of the site and to avoid flooding in accordance with Policy CS18.

20. No development within each phase of the development, as set out in the approved Phasing Plan required under condition 3 shall take place until a

SuDS and Highway Drainage Maintenance Plan relevant to that phase has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall set out maintenance responsibilities, access and frequencies for each of the proposed SuDS features, the highway drainage network and all associated land drains, filter strips and conveyance ditches included in the detailed drainage design. Where agencies with proposed maintenance responsibilities have been identified, evidence that they have the relevant experience and expertise to fulfil these requirements will also be required. Where alarmed interceptors will be used identify and contain pollution incidents, a detailed management plan setting out responsibilities for responding to, containing and disposing of any hazardous waste (to include the remediation of the affected SuDS feature) over the lifetime of the NWRR will be required. The approved scheme shall be fully implemented before the development is brought into use.

Reason: The condition is a pre-commencement condition to ensure satisfactory drainage of the site and to avoid flooding.

21. No development within each phase of the development, as set out in the approved Phasing Plan required under condition 3 shall take place until a scheme of habitat and biodiversity enhancements to compensate for any loss of ordinary watercourse habitat which may be caused as a result of the implementation of the relevant phase of development has been submitted to and approved in writing by the Local Planning Authority. Where Ordinary Watercourses are being amended, Ordinary Watercourse Consent must be secured prior to any works taking place. Where the proposed scheme impacts the contributing catchments for existing surface water features (such as the pool on Calcott Lane), evidence on how sufficient flow to these features will be maintained or how compensatory clean flows will be provided to as part of the scheme should be submitted. The approved scheme should result in demonstrable enhancements in each location where the NWRR crosses Ordinary Watercourses and be fully implemented before the development is brought into use.

Reason: The condition is a pre-commencement condition to ensure that the project secures the required Ordinary Watercourse Consents and that the projects does not have a negative impact on the surface water environment and to ensure the satisfactory drainage of the site and to avoid flooding.

22. No demolition or construction work within each phase of the development, as set out in the approved Phasing Plan required under condition 3 shall commence until a Construction Environmental Management Plan (CEMP) relevant to that phase, and including means for protecting the nearby sensitive receptors from noise and vibration, has been submitted to and approved in writing by the Local Planning Authority; all measures which form part of the scheme shall be strictly adhered to throughout the period of demolition and construction. The CEMP shall be based upon the framework and topic matters set out in the approved Outline Construction Environmental Management Plan.

The CEMP shall include:

- Procedures to ensure all works adhere to Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, to reduce noise (including vibration) to a minimum, with reference to the general principles contained in British Standard BS5228: 2009 ‘Code of practice for noise and vibration control on construction and open sites, Parts 1 and 2’.
- A procedure for dealing with complaints regarding noise and dust.
- A procedure for notifying occupiers who are likely to be impacted from works.
- Staff training to cover principles of Best Practicable Means (BPM) relating to all site activities.

- Emergency procedures to cover spills or pollution
- Sensitive working practices and robust pollution prevention control measures in proximity to sensitive locations, including (but not limited to) the Severn Trent Water surface water intake on the River Severn, Groundwater Source Protection Zones (SPZ) and other sensitive surface water receptors such as Hencott Pool and Oxon Pool;
- Sensitive demolition practices.
- Construction phasing and programming
- Diversion of local roads, footpaths and public rights of way
- Construction access/haulage routes, parking and traffic
- Construction compounds
- Utilities Diversions
- Private Farm Services
- Working hours and restrictions
- Site security
- Construction Employment
- Site Office and Welfare facilities
- Temporary drainage solutions
- Site clearance
- Earthworks and Site levels
- Construction plant and equipment
- Cranes
- Construction Materials
- Deliveries to site
- Material storage and handling
- Wheel washing facilities
- Lighting
- Construction Waste Management
- Key construction practices
- Health and Safety
- Environmental Procedures and Protections

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Reason: In the interest of the amenity of the occupants of surrounding sensitive properties and the safe operation of the highway network.

23. Prior to the commencement of the development a Waste Management Plan shall be submitted to and approved in writing by the Local Planning Authority. The details contained in the approved Waste Management Plan shall be adhered to at all times.

Reason: The information is required prior to commencement of the development to safeguard the amenities of the area.

24. No piling work associated with the construction of the road section (River Severn Crossing) will commence until a turbidity protocol is submitted to and approved by the Local Planning Authority. The protocol will be developed in consultation with Severn Trent Water and the Environment Agency and will act to ensure that risks to the operation of local public water supply boreholes are appropriately managed during the construction period. The protocol will include:

- Details of the required network of observation boreholes and installed monitoring equipment.
- Monitoring and sampling plan (pre, during and post construction) at observation boreholes and abstraction boreholes.
- Agreed Piling methodology and standoff limits between toe of piling and bedrock.
- Schedule of alarm trigger levels (set with respect to UKDWS limits) and stakeholder notification plan.
- Piling stand down triggers.
- Stand Down and Recommencement Process Plan.
- Reporting requirements.

Piling activities will not be undertaken outside of standard (Mon-Fri – 0800-1730) working hours unless formally agreed in advance with Severn Trent Water.

Reason: To address monitoring and management of turbidity risks identified in the Piling Works Risk Assessment and To ensure that the water environment is not compromised.

25. A road drainage management plan, including management responsibilities and maintenance schedules for the section of the road through source protection zones in Shelton, shall be submitted to and approved by the Local Planning Authority in advance of the opening of the road. The plan will be developed in consultation with Severn Trent and the Environment Agency and will be implemented in full for the lifetime of the road.

The plan will include:

- Description and location of specific assets to be monitored and maintained.

  Aims and objectives of management.
  - Methodology for maintenance plan.
  - Monitoring schedule.
  - Details of the body or organisation responsible for management of the plan.
  - Remedial work arrangements.
  - Stakeholder involvement and reporting regime.

Reason: To ensure that that the Source Protection Zone is not compromised.

26. Prior to the commencement of the relevant phase of development, as set out in the approved Phasing Plan, detailed proposals that demonstrate how a minimum of a 10m standoff shall be achieved, between the base of any piles supporting the Shelton Rough River Severn Viaduct and the underlying competent bedrock ((defined within SEI Jan 2023, Chapter 5: Geology & Soils, Appendix 5.D: Appendix 10.3: Piling Works Risk Assessment, Revision 4 (confidential); Annex D; Interpretation & definition of completely weathered and fractured bedrock) shall be submitted to and approved in writing by the Local Planning Authority, in consultation with Severn Trent Water Ltd and the Environment Agency. Following approval, the works shall be undertaken in full accordance with the approved plans.

Reason: To ensure protection of underlying competent bedrock.

27. Prior to the development there by approved being brought into use, final details of how a 10m standoff between the base of any piles and the underlying competent bedrock has been achieved shall be submitted to and approved in writing by the Local Planning Authority. The details shall include borehole logs that demonstrate the depth to, and the lithological configuration within, which the piles were drilled and completed. The works shall be undertaken in full accordance with the approved plans.

Reason: To ensure protection of underlying competent bedrock.

28. Prior to the commencement of the relevant phase of development, as set out in the approved Phasing Plan, no test piling works will commence until detailed proposals for how test piles will be designed and implemented have been approved by the Local Planning Authority, in consultation with Severn Trent Water Ltd and the Environment Agency. The proposals shall include details of how the findings of the test piles will be communicated to the Local Planning Authority, Severn Trent Water Ltd and the Environment Agency. Following approval, the test piles shall be implemented in full accordance with the approved details.

Reason: To ensure protection of underlying competent bedrock.

29. Prior to the commencement of the relevant phase of development, as set out in the approved Phasing Plan, detailed designs including drawings and method statements for the construction of the bank protection works on the right bank of the River Severn at Shelton Rough, substantially in accordance with the details defined within SEI Jan 2023, Chapter 1, Appendix 1.P Bank Protection, shall be submitted to and approved in writing by the Local Planning Authority. The works shall be undertaken in full accordance with the approved plans.

Reason: To ensure protection of the right bank of the River Severn.

30. If, during development, contamination not previously identified is found to be present at the site then no further development shall be carried out until the developer has submitted and received approval for a remediation strategy to the Council as Local Planning Authority detailing how this unsuspected contamination shall be dealt. The remediation strategy shall be implemented as approved.

Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to human health and offsite receptors.

31. No construction and or demolition works (including deliveries) shall occur before 0730 or after 1800 on weekdays nor before 0800 or after 1300 on Saturdays and not at any time on Sundays or Bank Holidays. Where any site activities cannot comply with these times, the Applicant shall apply to the Council in writing for a Dispensation at least 21 days in advance of the proposed operation submitting the following:

- Details of the operation in question
- Reasons why the operation cannot be carried out within the terms of the Consent
- Proposed working hours
- Predicted noise and vibration levels at relevant locations
- Proposed steps taken to reduce noise and/or vibration to a minimum.

Where dispensation is required for works of a critical nature for reasons not envisaged and beyond the control of the applicant (such as key activities likely to delay other key activities) the applicant shall apply in writing where practicable at least 48 hours in advance and at least 7 days in advance if the work is expected to last for a period of 5 days or more.

Reason: In the interest of the amenity of the occupants of surrounding sensitive properties.

32. No development shall take place until a detailed noise mitigation scheme

has been submitted to and approved in writing by the Local Planning Authority. The mitigation scheme shall include details of all embedded and secondary mitigation detailed in Chapter 15 of the Environmental Statement (the noise reports ref: 70056211-WSP-EGN-AS-RP-LE-00007) & the Supplementary statement (ref: 70056211-WSP-EGN-AS-RP-LE-00013), including detailed specification for the:

- Quiet Road surface proposed on the full length of road
- 2m barrier running from the new roundabout at Shelton to Holyhead Road
- 2m barrier along road north of Shelton Gardens
- 2m high barrier to the western end from the A5 Churncote roundabout to Holyhead Road
- 2m barrier on southern side of the Proposed Scheme carriageways to the east of Holyhead Road between the proposed B4380 Holyhead Road Roundabout and the Shelton Rough River Severn Viaduct.
- 2m barrier on south between A5 Churncote roundabout and Little Oxon Lane
- The south side of the parapet on the Shelton Rough River Severn Viaduct shall have a solid structure of 1.5m height
- Noise bunds and barriers
- Maintenance responsibilities for mitigation

The approved scheme shall be completed prior to the opening of the road and shall thereafter be retained.

Reason: In the interest of the amenity of the occupants of surrounding sensitive properties.

33. Prior to the opening of the road a Noise Insulation Regulations (NIR) 1975 assessment shall be carried out to identify any houses that are likely to be exposed to road traffic noise levels ≥68dB LA10,18h.

Any properties that qualify for a NIR grant shall be informed of the noise insulation grant provisions available.

Reason: In the interest of the amenity of the occupants of surrounding sensitive properties.

34. The programme of archaeological work for the development approved by this permission shall be carried on in complete accordance with the Written Schei Investigation by WSP dated June 2022.

Reason: The site is known to hold archaeological interest.

35. All Agricultural operations should be desisted within the buffer zone comprising all fields surrounding Hencott Pool within approximately 200m, as set out in the Shadow Habitats Regulations Assessment (HRA) - January 2023. Prior to the approved scheme being brought into use, a Final Compensation Delivery and Management Plan detailing measures to implement and monitor the approved mitigation shall be submitted to and approved by the Local Planning Authority. The mitigation shall apply for a period of up to 80 years, subject to review every 5 years.

Reason: To ensure no long-term significant effect on the integrity of the Midlands Meres and Mosses Ramsar Phase 2.

36. Nitrogen dioxide monitoring shall be installed and maintained from construction commencement until such a time as the Public Protection service states that is can be ceased. The monitoring locations shall be approved in writing by the Public Protection service and will be designed to cover a representative sample of the area.

Reason: to ensure impacts from the development are captured and fed into Local Air Quality Management duties to understand any need for additional measures to fulfil statutory duties in respect of this regime.

APPENDIX 3 – GLOSSARY OF TERMS

AADT	Annual Average Daily Traffic
AIA	Arboricultural Impact Assessment
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
ARA	Arboricultural Report Addendum
BCR	Benefits to Cost Ratio
BNG	Biodiversity Net Gain
BPM	Best Practicable Means
CAVAT	Capital Asset Valuation of Amenity Trees
CEMP	Construction Environmental Management Plan
CMP	Construction Management Plan
DMRB	Design Manual for Roads and Bridges
DQRA	Detailed Quantitative Risk Assessment
DfT	Department For Transport
DWPA	Drinking Water Protected Area
EIA	Environment Impact Assessment
ES	Environmental Statement
FRA	Flood Risk Assessment
GCN	Great Crested Newts
HDV	Heavy Duty Vehicles
HIA	Heritage Impact Assessment
HRA	Habitat Regulations Assessment
IMD	Index of Multiple Deprivation
LOAEL	Lowest Observable Adverse Effect Level
LPA	Local Planning Authority
LVIA	Landscape Visual Impact Assessment

NATS	National Air Traffic Services
NGR	National Grid Reference
NOAEL	No Observable Adverse Effect Level
NPPF	National Planning Policy Framework
NPSE	Noise Policy Statement
NWRR	North West Relief Road
OAR	Options Assessment Report
OBC	Outline Business Case
OLR	Oxon Link Road
PRoW	Public Right of Way
PWRA	Piling Works Risk Assessment
RBMP	River Basin Management Plan
SAC	Special Areas of Conservation
SOAEL	Significant Observed Adverse Effect Level
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
SPZ	Source Protection Zones
TPO	Tree Preservation Order
WERA	Water Environment Risk Assessment
WFD	Water Framework Directive
WTW	Water Treatment Works