



Report Strategic Sites Committee

Application Number:	CC/0015/20
Proposal:	New dual carriageway link road including: roundabout junction B4443 Lower Road, roundabout junction at A413 Wendover Road, railway bridge, footway/cycleways, noise attenuation barrier, street lighting, earthworks and landscaping between B4443 Lower Road and A413
Site Location:	Land Between The A413 Wendover Road And The B4443 Lower Road In The Parishes Of Stoke Mandeville, Weston Turville And Aylesbury
Applicant:	Buckinghamshire Council
Case Officer:	Sue Pilcher
Ward(s) affected:	Wendover, Halton and Stoke Mandeville Aston Clinton and Bierton
Parish Council:	Stoke Mandeville and Weston Turville
Date valid application received:	15 th April 2020
Statutory determination date:	
Recommendation	It is recommended that permission be deferred and delegated to the Director of Planning and Environment to GRANT permission subject to conditions as considered appropriate by Officers and completion of a memorandum of understanding regarding the delivery of the transport mitigation

1.0 Summary & Recommendation/ Reason for Planning Committee Consideration

- 1.1 The proposed development is for a 1.2km dual carriageway road with a 40mph speed limit located between the B4443 (Lower Road) and A413 (Wendover Road) on agricultural land to the south east of the existing built up area of Aylesbury.
- 1.2 The application is reported for determination by the Strategic Sites Committee in line with the Buckinghamshire Council Constitution and Planning Protocol as it comprises strategic development, major infrastructure fundamental to the implementation of VALP, and an application for the Council's own development.
- 1.3 Special regard has been given to the desirability of preserving the setting of listed buildings as required in the statutory tests contained in Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990. With regard to the listed buildings and their settings it is considered that the impact of the built form itself, would preserve and not harm the setting of the listed buildings. There is therefore no clear reason to refuse permission on this basis.
- 1.4 The scheme has also been considered acceptable with mitigation outlined above in terms of its impact to achieving well-designed places, promoting sustainable transport (cycling and footpath links), meeting the challenge of climate change and flooding, archaeology and conserving and enhancing the natural environment, however these do not represent benefits of the scheme but rather demonstrate an absence of harm to which weight should be attributed neutrally. There is also the recognised potential harm to bats which can be appropriately mitigated to address the harm as outlined above and thus neutral weight is given to this.
- 1.5 There would be harm to the character of the landscape and on visual impacts which having regard to mitigation would be a significant negative impact and the development would result in loss of BMV agricultural land which would be of very limited negative impact.
- 1.6 In respect of residential amenities, having regard to the residual impact of noise through the operation of the SEALR on a number of properties there would be a significant adverse effect.
- 1.7 There would be significant benefits to the delivery of a key section of strategic link road both in terms of the existing highway network and reducing congestion and significant benefits in delivering the strategic growth at Aylesbury Garden Town, providing mode choice and delivering the council's sustainable spatial strategy. In addition there would be considerable benefits from investment in construction and the local economy. There would be limited benefits in terms of air quality in respect of the town and residential amenities and limited benefits in providing biodiversity net gain.
- 1.8 It is recommended that permission be deferred and delegated to the Director of Planning and Environment to **GRANT** permission subject to conditions as considered appropriate by Officers and completion of a memorandum of understanding regarding the delivery of the transport mitigation.

2.0 Description of Proposed Development

- 2.1 The site lies on the southern edge of the built up areas of Aylesbury mainly within the parish of Stoke Mandeville, but the proposed roundabout on the Wendover Road falls partly within Weston Turville Parish. A number of residential properties are to the north as well as several residential properties that also lie off Wendover Road to the east and Lower Road to the west. The area south of the site is predominantly agricultural land, beyond which lies Stoke Mandeville village and a number of residential properties. Nearby commercial property includes the existing Stoke Mandeville Autocentre and Fountain Business Centre on the B4443.
- 2.2 There are a number of local Public Rights of Way including:
- SMA1/2, a bridleway which starts at Wendover Road immediately north of the Stoke Grange roundabout, briefly heads west before turning south away from the alignment of the proposed scheme towards Stoke Mandeville.
 - SMA2/1-2/3, a footpath which runs through the site in a broad east to west direction closely following the alignment of the SEALR linking Lower Road with Wendover Road. This footpath crosses the Aylesbury to London Marylebone railway line at an uncontrolled level crossing. Stiles are provided either side of the railway to control access to the Network Rail land.
 - SMA3/1-3/2, a footpath which runs through the Site in a broad north to south direction bisecting the alignment of the SEALR.
- 2.3 There are also two cycle routes near the site, the Jetway, which starts at Aylesbury town centre and heads towards the Stoke Mandeville vicinity and adjacent the Stoke Mandeville Hospital on Lower Road; and the Amberway, which starts at Aylesbury town centre and then heads towards Wendover Road.
- 2.4 There are seven bus stops located within 400 metres of the proposed scheme and three within the site area. These are on Wendover Road at Silver Birch Way and Ranch House on Lower Road. The closest railway station on this line is Stoke Mandeville which is located approximately one kilometre south of the proposed scheme on Station Road. The station is operated by Chiltern Railways with services generally operating seven days a week.
- 2.5 The site does not form part of a conservation area, nor is it adjacent to one. There are also no listed buildings within the site, the closest being 71 Lower Road (Grade II), Hall End Farmhouse (Grade II) and Magpie Cottage, Lower Road (Grade II) to the south of the site. The site does have potential for impact on matters of archaeology and these are discussed in the heritage section below.
- 2.6 The proposed development is for a 1.2km dual carriageway road with a 40mph speed limit located between the B4443 (Lower Road) and A413 (Wendover Road) on

agricultural land to the south east of the existing built up area of Aylesbury. It would cross the Chiltern Railway line, via a bridge, around its mid-point.

- 2.7 The road will be accessed by a new roundabout at the junction of the B4443/A4010 to the west, tying into the proposed Stoke Mandeville relief road, and a new roundabout at the junction with the A413, with the ability to tie into the Southern Link Road (which would serve the proposed Hampden Fields development) to the east.
- 2.8 The development of High Speed Two (HS2) will sever the A4010 Risborough Road south of Stoke Mandeville. As part of the proposals for HS2, a new link road will be developed to divert the A4010 around the west of Stoke Mandeville, connecting with the B4443 Lower Road further north, via a new roundabout. This scheme is referred to as the Stoke Mandeville relief road. Traffic modelling has indicated that this re-alignment will cause congestion at the Stoke Road gyratory leading to increased traffic queuing and delays. Increased traffic on the B4443 arising from the proposed Stoke Mandeville relief road is also likely to result in worsening air quality issues at the Stoke Road gyratory which is a designated Air Quality Management Area (AQMA) due to high traffic levels and emissions related to idling vehicle engines and queueing. So the SEALR will provide a new road to connect the B4443 Lower Road with the A413 Wendover Road and will aim to address these issues.
- 2.9 It is anticipated that the SEALR will open at a similar time as the Stoke Mandeville relief road to address the congestion issues. This is expected to be 2023/2024.
- 2.10 The applicants consider that the proposed development will address congestion issues whilst also enabling part of the Council's long term vision to deliver an orbital route around the town of Aylesbury. Aylesbury is a key growth area for the region but suffers from limited connectivity to the strategic road network which this application, with others, seeks to address.

Main aims:

- To enable satisfactory levels of network performance at the Stoke Road gyratory and the A413, A4010 and B4443 arterial roads after the A4010 realignment is completed;
 - To support the overall quantum of growth within Aylesbury and the surrounding area;
 - To increase the effectiveness of the realigned A4010 as a key north / south corridor; and
 - To secure good local connectivity for all road users for movements to, from, within and around Aylesbury.
 - Furthermore the Proposed Scheme will help relieve pressure on a key blue light route (access to Stoke Mandeville Hospital); and increase provision for walking and cycling.
- 2.11 The application is accompanied by an Environmental Impact Assessment and includes a number of drawings and supporting information. These were reviewed as part of determining the application and following comments from members of the public and consultees, further information was sought and a second consultation under Regulation 25 of the 2017 EIA Regulations was carried out.

2.12 The schedule of submitted documents is available in Appendix D and EIA summary is available in Appendix E.

2.13 The additional information submitted with regard to the Environmental Statement (ES) includes an update to reflect the requirements of the 2017 Regulations and consideration of the following topics:

- Preparation of a Statement of Competence
- Consideration of major accidents and disasters
- Preparation of a human health impact assessment
- Preparation of a climate change impact assessment

In addition, there have also been subsequent design amendments to address comments raised and as such the ES addendum also addresses where these scheme changes affect the environmental topics set out within the March 2020 ES. The proposed scheme amendments are set out below:

- Revisions to roundabout geometries in response to revised traffic flows and amendments to the Southern Link Road (SLR) tie in at Hampden Fields;
- Incorporation of new three span bridge arrangement as a result of ground conditions and value engineering;
- Widening of the southern 2m footway to provide a 3m footway/cycleway through narrowing/removal of verge;
- Passive provision for a future Public Right of Way (PRoW) diversion over the SEALR bridge (should the PRoW over the railway be required to be diverted in the future as part of other proposals in the AGT1 allocation; surfacing of the route onto the bridge is not included within the scope of the scheme);
- Incorporation of replacement public open space;
- Landscape planting
- Minor flood attenuation area and drainage amendments;
- The Armillary Sphere will no longer be installed as part of the scheme (previously to be installed on Lower Road roundabout); and
- Addition of an agricultural access off Lower Road roundabout.

3.0 Relevant Planning History

3.1 Previous applications include:

- AV.1036.85 Residential development comprising 151 dwellings (Stoke Grange Farm):
Approved

3.2 Applications of relevance on nearby sites:

- 18/04346/AOP: South-West Aylesbury - Outline planning application (with all matters reserved except for principal means of access to the highway) for mixed-use development including up to 1,400 residential dwellings
- 16/00424/AOP: Hampden Fields - Outline planning application (with all matters reserved) for a mixed-use sustainable urban extension comprising: up to 3,000 dwellings and a 60 bed care home/extra care facility (Use Class C2/C3); provision of land for a Park and Ride site; a total of 6.90ha of employment land (comprising of up to 29,200 sq.m. B1c/B1/B2/B8 uses); provision of two primary schools (one 2 form entry and one 3 form entry); a mixed use local centre (3.75ha) with provision for a foodstore of up to 1,200 square metres (GFA), further retail (including a pharmacy), restaurant and café units, a doctor's surgery, gym, public house with letting rooms, professional services, multi-functional community space and a day nursery, and live work units; multi-functional green infrastructure (totalling 108.43ha) including parkland, sports pitches, sports pavilions, children's play areas, mixed use games areas, including a skate park/BMX facility, informal open space, allotments, community orchards, landscaping; extensions to domestic gardens at Tamarisk Way (0.22ha); strategic flood defences and surface water attenuation; vehicular access points from New Road, Marroway, A413 Wendover Road and A41 Aston Clinton Road; a dualled Southern Link Road between A413 Wendover Road and A41 Aston Clinton Road and a strategic link road between the Southern Link Road and Marroway; internal roads, streets, lanes, squares, footpaths and cycleways and upgrades to Public Rights Of Ways (PRoWs); and car parking related to the above land uses, buildings and facilities. Considered by Committee October 2017 and resolution to grant subject to satisfactory completion of a legal agreement- pending consideration.
- 16/01040/AOP: Woodlands - Outline application with means of access (in part) to be considered for up to 102,800 sq m employment (B1/B2/B8), up to 1,100 dwellings (C3), 60 residential extra care units (C2), mixed-use local centre of up to 4,000 sq m (A1/A2/A5/D1), up to 5,700 sq m hotel and Conference Centre (C1), up to 3,500 sq m Leisure facilities (A1/A3/A4), up to 16 ha for sports village and pitches, Athletes Accommodation (10 x 8 bed apartments), and up to 2 ha for a primary school (D1), with a strategic link road connecting with the ELR (N) and the A41 Aston Clinton Road, transport infrastructure, landscape, open space, flood mitigation and drainage. Considered by Committee October 2017 and resolution to grant subject to satisfactory completion of a legal agreement– pending consideration.
- 19/01628/AOP: Part of AGT1 allocation by Land Improvement Holdings - Outline planning application, for the proposed development of up to 750 dwellings, safeguarded land for delivery of South-East Aylesbury Link Road, Primary school, community hub, vehicular and pedestrian access off Lower Road, pedestrian and emergency access, new internal road and pedestrian footpath network and provision for green infrastructure - Pending consideration.
- 16/04608/AOP: Land off Lower Road (now Crest Nicholson site) - Outline planning application with access to be considered and all other matters reserved for residential

development of up to 125 dwellings, open space, landscaping, drainage features and associated infrastructure – Approved.

- 18/00913/ADP: Land off Lower Road (Crest Nicholson) Application for approval of Reserved Matters pursuant to Outline Planning Permission (16/04608/AOP) for the residential development of 125 dwellings, open space, landscaping, drainage features and associated infrastructure: Approved
- 20/01372/APP: Land off Lower Road (Crest Nicholson) Erection of 34 no. dwellings and associated development works – Approved (total on site of 132 dwellings, this application included a re-plan of part of the 18/00913/ADP site to include an uplift of 7 dwellings).

4.0 Representations

4.1 Stoke Mandeville Parish Council has objected. A significant number of representations (187 in total) have been received, 164 objecting and 11 in support. Whilst these representations have been clearly set out in detail below in Appendix A, the key concerns are impact on landscape, impact on traffic and congestion, on ecology, on residential amenities, loss of open space and rights of way. In terms of support the representations consider that the link road would help congestion in and around the town.

5.0 Policy Considerations and Evaluation

5.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the development plan unless material considerations indicate otherwise.

Development Plan:

Aylesbury Vale District Local Plan 2004 (AVDLP). The report will identify where policies are not consistent with the NPPF and the weight to be afforded if the policy does not attract full weight.

Other material considerations:

- National Planning Policy Framework (NPPF) 2019
- Planning Practice Guidance (PPG)
- Emerging Vale of Aylesbury Local Plan (2013-2033)
- Aylesbury Garden Town Masterplan July 2020
- Aylesbury Transport Model 2017

5.2 The draft Vale of Aylesbury Local Plan (2013-2033) (VALP) is now at an advanced stage and weight can be given to the relevant policies in the plan in accordance with the NPPF. The overall approach as a guide is:

- **Limited weight:** if there is a new and untested policy introduced by a main modification and subject to consultation.

- **Moderate weight** :where there are objections and the Inspector has requested main modifications and therefore objections can be regarded as being “resolved”. The context being that the Inspector has considered the proposed modifications and in agreeing them for consultation, has confirmed that he is reasonably satisfied that they remedy the points of unsoundness identified in the examination process so far (as set out in Inspector’s note ED185).
- **Considerable weight** : where there are objections but the Inspector has not requested main modifications (and as such the policy will not be changed in a material way) and the objections can therefore be regarded as being “resolved”.
- **Significant weight** :where there are no objections and no modifications. These policies are not going to be changed and the next step will be adoption and very significant weight.

The report will identify the weight to be given to the relevant emerging policies.

There is currently no made neighbourhood plan for Stoke Mandeville. A neighbourhood plan area has been identified and work is being carried out preparing for the pre submission document, including work on the background evidence for the plan and the emerging policies. A Regulation 14 consultation will be carried out in due course once this stage of the plan is submitted to the Council.

There is a made Neighbourhood Plan for Weston Turville and part of the roundabout on the Wendover Road falls within the neighbourhood plan area but it lies outside one of the three settlement boundaries identified in the plan.

Principle of Development

- 5.3 Aylesbury Vale District Local Plan saved policies: GP35 (Design of new development proposals); RA2 (Loss of open gaps and consolidation of settlements); AY1 (considerations for traffic generating proposals), AY2 (Additional contributions to the ALUTS), AY3 (Phasing of transport development),
- 5.4 Weston Turville Neighbourhood Plan: Policy H1 (Weston Turville Settlement Boundaries).
Emerging Vale of Aylesbury District Local Plan (VALP): S1 (Sustainable development for Aylesbury Vale) (*considerable weight*); S2 (Spatial strategy for growth) (*moderate weight*), D1 (Delivering Aylesbury Garden Town), D-AGT1 (South Aylesbury), T1 (Delivering the sustainable transport vision) (*moderate weight*); Policy T2 (Supporting and protecting transport schemes), T3 (Supporting local transport schemes) (*moderate weight*) and BE2(Design of new development) (*moderate weight*).
- 5.5 Part of the proposed roundabout on the Wendover Road falls within the Weston Turville neighbourhood plan area but it lies outside one of the three settlement boundaries identified in the plan. Policy H1 (Weston Turville Settlement Boundaries) states that development proposals (other than for rural housing exception schemes, or development as part of the growth of Aylesbury as defined in the emerging Vale of Aylesbury Local Plan), will not be permitted on land outside the Settlement Boundaries unless it complies with a number of criteria. In this instance the SEALR forms part of the growth of Aylesbury and it is referred to in emerging policy D-AGT1 since this allocation requires the safeguarding of land Safeguarding the land required for the delivery of a dual carriageway

distributor road between B4443 Lower Road and A413 Wendover Road to cross the railway line (the SEALR), with sufficient land for associated works including but not limited to earthworks, drainage and structures.

- 5.6 Policies AY1-3 of AVDLP relate to the now superseded Aylesbury Land Use Transportation Strategy on sustainable travel and funding infrastructure. These are out of date as they are based on the ALUTS strategy for the plan period up to 2011 and the evidence relating to the former Aylesbury Vale District's need has changed significantly since these policies were adopted and are not consistent with the NPPF policies to identify and protect sites and routes which could be critical in developing infrastructure to realise opportunities for large scale development, based on up to date evidence.
- 5.7 The VALP Proposed Submission sets out strategic sites within Policy D1 (Delivering Aylesbury Garden Town). These include:
- South Aylesbury (D-AGT1)
 - South West Aylesbury (D-AGT2)
 - Aylesbury North of A41 (D-AGT3)
 - Aylesbury South of A41 (D-AGT4)
 - Berryfields, Aylesbury (D-AGT5)
 - Kingsbrook, Aylesbury (D-AGT6)
- 5.8 Emerging policy D-AGT1 (South Aylesbury) as referred to in the further main modifications to the plan (November 2020) includes safeguarding the land required for the delivery of a dual carriageway distributor road between B4443 Lower Road and A413 Wendover Road to cross the railway line (the SEALR), with sufficient land for associated works including but not limited to earthworks, drainage and structures.
- 5.9 Within the transport policies, of particular relevance to the proposed development are Policy T1 (Delivering the sustainable transport vision), Policy T2 (Supporting and protecting transport schemes) and Policy T3 (Supporting local transport schemes). Policy T2 highlights that "the Council will continue to work with HS2 Ltd with the aim of influencing the design and construction of the route through Aylesbury Vale to minimise adverse impacts and maximise any benefits that arise from the proposal". Policy T3 states that the "Council will actively support key transport proposals including those identified in both the Aylesbury Transport Strategy".
- 5.10 The SEALR is identified in Table 16 of emerging policy T3 (Supporting local transport schemes) in the VALP as a protected and supported transport scheme. Delivery was anticipated for 2021 and funding would be provided by HS2, developer funding and local government funding. The delivery of the SEALR has been delayed as a result of the Covid-19 impact on staff, including staff redeployment, transport modelling, HS2 infrastructure delays and Department of Transport input.
- 5.11 Having regard to the above matters, it is considered that the principle of the development of the SEALR would accord with the Weston Turville Neighbourhood Plan, emerging VALP policies and the Aylesbury Transport Strategy and that it would enable the Council's long term vision to deliver key part of an orbital route around the town of Aylesbury to progress noting that Aylesbury is a key growth area for the region but suffers from limited connectivity to the strategic road network. This is also reflected in the AGT

masterplan. The detail of the provision of the SEALR is considered in the remainder of the report below.

Transport Matters

WTNP policies T1 (Improvements to road safety and ease traffic congestion), Policy T2 (Strategy for improving pedestrian and cycle connections within the Parish and to surrounding area)

Emerging VALP policies D-AGT1 (South Aylesbury), T1 (Delivering the sustainable transport vision); Policy T2 (Supporting and protecting transport schemes), T3 (Supporting local transport schemes) (all preceding have *moderate weight*)

- 5.12 WTNP Policy T1 (Improvements to road safety and ease traffic congestion) states that development proposals should demonstrate that they can deliver appropriate site access and traffic mitigation through agreement with the Highways and Planning Authorities to minimise adverse effects on the local traffic network. WTNP Policy T2 (Strategy for improving pedestrian and cycle connections within the Parish and to surrounding area) states that development proposals must demonstrate how existing sustainable transport links can be accessed from the site and where necessary, secure improvements to ensure safe access for pedestrian and cyclists in line with current industry standards and the Highways Authority policies.
- 5.13 Emerging Policy D-AGT1 in the VALP includes the provision of land for at least 1,000 dwellings at South Aylesbury and includes the SEALR in the site specific requirements. Emerging VALP Policy T1 'Delivering the Sustainable Transport Vision' states that the Council will assist in delivering the pedestrian, cycle, public transportation and public realm improvements identified in Aylesbury town centre through the Aylesbury Garden Town initiative and Aylesbury Transport Strategy. Emerging Policies T2 'Protecting Transport Schemes' and T3 'Supporting transport schemes' of the VALP include HS2 and state that the Council will continue to work with High Speed 2 Ltd with the aim of influencing the design and construction of the route through Aylesbury Vale to minimise adverse impacts and maximise any benefits that arise from the proposal.
- 5.14 The Aylesbury Transport Strategy (ATS) was developed with the aim of improving transport connectivity and accessibility within Aylesbury town and to accommodate the VALP growth.
- 5.15 The application is accompanied by a Transport Assessment (TA) dated March 2020 which was submitted in April 2020. Buckinghamshire Council's (BC) Highways Development Management team considered the TA in detail and issued a Highways response on the TA on 10th June 2020 that requested further information.
- 5.16 The Aylesbury Transport Model (ATM) has been updated since the SEALR TA was submitted in April 2020, to align growth assumptions to be consistent with other strategic development site updates and to include an end of VALP assessment. A TA Addendum (TAA) was submitted in December 2020 by the applicant which provides updated junction assessments following changes to the design of SEALR, including the roundabout junctions, as well as revised traffic flows for 2036 due to the ATM updates.

5.17 The full comments of Highway Officers can be found at Appendix B.

Requirement for the scheme

5.18 The requirement for the SEALR scheme is twofold: Firstly, the scheme has been developed to mitigate the traffic impact of High Speed Two (HS2) as set out in the description of the development above.

5.19 The plan extract below shows HS2 and the SMRR in relation to the proposed SEALR.

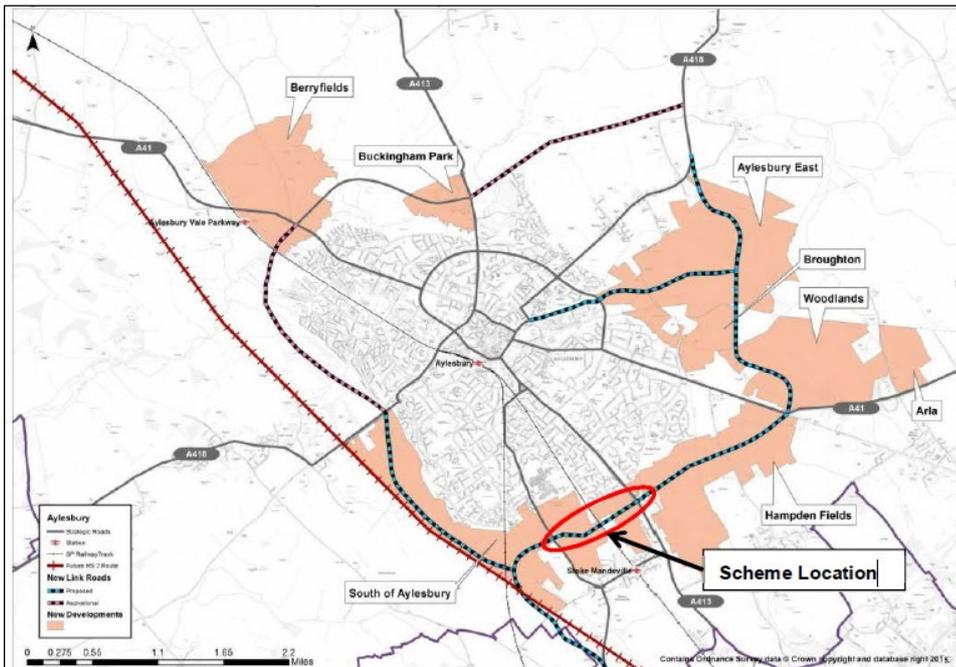


Figure 1:Scheme Location

5.20 The second reason for the scheme is to accommodate the VALP growth and contribute to the transport improvements identified in the Aylesbury Transport Strategy. The VALP identifies Aylesbury as a major growth location for approximately 8,000 new homes.

5.21 The ATS includes “Transport Improvement 1: Implement Outer Road Links”. It explains that an outer link road network helps remove traffic and congestion from key arterial routes allowing other transport improvements to progress. The proposed SEALR scheme contributes to this long-term vision to deliver a partial orbital route around Aylesbury, together with proposed link roads that will be delivered through large housing projects to the south east of Aylesbury, which are allocated in the emerging VALP.

5.22 When fully opened, the road is expected to accommodate 2,500 to 3,000 vehicles each peak hour (two-way) and 36,400 vehicles a day (two-way).

Funding

5.23 The scheme is estimated to cost £35.5m and will be funded through a mixture of Government grants and S106 developer contributions. The developer contributions element is forward funded through the Housing Infrastructure Fund. HS2 are providing funding for the crossing of the Railway Line. If HS2 did not proceed then the Council would need to consider further funding sources although there is a Secretary of State Assurance for the provision of this funding.

Design

5.24 A four arm roundabout connecting Lower Road (B4443), the Stoke Mandeville Relief Road and the SEALR will represent the western extents of the scheme. This roundabout will feature an Inscribed Circle Diameter (ICD) of 69m and two circulatory lanes with two lane approaches on all arms. The roundabout and all approaches will be street lit.

5.25 The Jetway cycleway runs along the eastern side of Lower Road. Pedestrian and cycle provision will be provided around the northern and eastern sides of the junction to tie in with existing Jetway cycle facilities. Toucan signalised crossing points will also be provided on the northern and eastern arms. There are currently no footway facilities along the western side of Lower Road, there is therefore no requirement for a signalised crossing point on the western side.

5.26 The road will include two 3.65m wide lanes in each direction with a 1.8m wide central reserve. A shared 3m wide footway / cycleway will run along the northern side of the carriageway and a 3m wide footway/cycleway will also run along the southern side. No street lighting is proposed along the link, although illuminated solar studs will be provided along the footway/cycleway on the northern and southern sides of the carriageway.

5.27 A new bridge structure is proposed across the London to Aylesbury railway line which will bisect the SEALR approximately mid-way along its length. Maintenance access will be provided on either side of the bridge. The structure itself features three spans; one main span of 36.6m between centre lines of intermediate piers and two side spans to the west and east of the railway track. These side spans will be 25m and 20m respectively. The main span was developed to cross the entire Network Rail corridor and the west side span to provide space for a north-south ecology corridor to the west of the railway line. The east side span was developed to reduce potential settlement of the Network Rail corridor produced by constructing high embankments adjacent to the railway line. Adjacent to the bridge abutments space has been reserved for maintenance access and to facilitate the movement of pedestrians and cyclists. This will also continue to permit the future aspiration for a cycle link between Stoke Mandeville Village and Stoke Mandeville Hospital.

5.28 The SEALR will terminate at a roundabout junction to the east. This four arm roundabout will connect Wendover Road (A413), the Southern Link Road (through Hampden Fields) and the SEALR. This roundabout will feature an ICD of 81m and three

circulatory lanes with three lane approaches on all arms to accommodate the traffic flows anticipated within the future forecast year of 2036. The roundabout and all approaches will have street lighting.

- 5.29 Pedestrian and cycle provision will be located around the northern and western arms of the junction to tie in with the existing Amberway cycleway on the western side of Wendover Road. Pedestrian only facilities will continue to be provided around the eastern arm. Toucan signalised crossing points will be provided on the northern and western arms and a signalised pedestrian crossing will be provided on the eastern arm.
- 5.30 Due to the new road alignment and location of the junction on Lower Road, residential property nos. 8 - 30 Lower Road will now be served by two cul-de-sacs that run parallel to the main carriageway. Swept path analysis have been submitted to demonstrate that both cul-de-sacs can be serviced by an 11.2m long refuse vehicle.
- 5.31 A Stage 1 Road Safety Audit (RSA) has been undertaken of the scheme and this audit revealed a number of issues. These included concerns regarding the straight alignment of the proposed link road, which may result in vehicles travelling at excessive speeds, concerns regarding existing accesses, excessive widths on the roundabout entry and exit lanes, and lack of cycle facilities.
- 5.32 A Designers Response (to deal with matters raised in the safety audit and a standard procedure in responding to the issues raised) was prepared to address the issues raised in the RSA. With regards to the road being too straight the response explained *"The road has been curved as far south as possible and further speed restriction introduced through the vertical alignment. It is therefore considered that the design has responded to the potential for high vehicle speeds as much as possible within the constraints of the project. No further change to the horizontal alignment of the scheme is considered feasible."* We understand that the alignment of the road is fixed to a certain extent by the need to tie into junctions with connecting roads at either end and the location of the bridge over the railway line.
- 5.33 The RSA stated that *"the existing access to County Farm Cottages is located approximately 35m to the south of the proposed southern exit from the eastern roundabout. This may result in rear end shunt type collisions between vehicles slowing down to turn left into the farm access and other road users continuing southbound on Wendover Road within the nearside lane, unless a sufficient level of forward visibility is provided. Additionally, overhanging or excessive vegetation in this location may block visibility splays for vehicles approaching and exiting the access, resulting in collisions between emerging vehicles and main line traffic. As vehicles exiting the roundabout will be concentrating on merging from two lanes to one at this point this could exacerbate this concern."*
- 5.34 The Designers Response states that the forward visibility will be maximised in this location to assist motorists assessing turning vehicles ahead. Consideration will be given to signing when the signing strategy is developed at detailed design.

- 5.35 The updated design drawing includes forward visibility splays. The drawing shows that a 105m forward visibility splay can be achieved for vehicles exiting the roundabout. A second splay shows that the stop line for the roundabout can be seen from a distance of 127.8m away. The third splay shows that the pedestrian crossing is visible from a distance of 110m.
- 5.36 Table 2.10 of CD 109 Highway Link Design (DMRB) indicates that the desirable stopping sight distance for a design speed of 50kph is 70m which is the distance that is required at this location. The forward visibility splays on the northern arm of the junction therefore exceed the DMRB stopping site distance requirements and are therefore acceptable.
- 5.37 The RSA mentions that *“the proposed roundabout circulatory at this location is to have three circulating lanes, with all exit arms only having two lanes. This may lead to conflicting manoeuvres between circulating vehicles when attempting to exit the roundabout circulatory.”* The Designers Response explains that the roundabout geometry has been informed by junction capacity assessments. The number of entry lanes is dictated by this modelling. At the detailed design stage a signing and lining strategy will be developed and it is considered that this issue can be addressed as part of that strategy.
- 5.38 The RSA states that *“off-road shared cycle facilities are provided north, east and west of the proposed roundabout as part of the scheme. However, there are no such facilities proposed to the south of the western roundabout alongside the southbound carriageway.”* The design of the western roundabout has now been amended to include a cycle facility at the southern section of the roundabout which is acceptable.
- 5.39 Highway Officers are satisfied that the remaining issues in the RSA will be considered at the detailed design stage.

Traffic Impact Scenarios

- 5.40 The planning application was accompanied by a TA dated March 2020 and included the following three traffic impact scenarios:
- 2021a Scenario: The ‘Standalone’ Assessment. This scenario includes the SMMR and the Eastern Link Road (North) and Stocklake Link Road which are both currently being constructed. The impact assessment compares the operation of the local road network without SEALR (2021a Do Nothing) with the operation of the road network with SEALR (2021a Do Something).
 - 2021b Scenario: This scenario includes the Eastern Link Road (South) and the Southern Link Road as well as 74% of employment at Woodlands and 60 dwellings in Hampden Fields. The assessments compare 2021b Do Nothing (without SEALR) with 2021b Do Something (with SEALR).
 - 2036 Scenario: This scenario includes the Eastern Link Road (South), the Southern Link Road and the South West Aylesbury Link Road. It includes the full development of Woodlands and

Hampden Fields as well as South West Aylesbury, South of Aylesbury, Broughton, Halton, Berryfields and Aylesbury East.

5.41 The TAA was submitted in December 2020 by the applicant and provides updated junction assessments following changes to the design of SEALR, including the roundabout junctions, as well as revised traffic flows for 2036. The TAA submitted for this application has utilised these revised 2036 flows and updated the network impact assessments accordingly.

Traffic Impact

5.42 The original review of the difference plots from the ATM revealed the need to assess 15 existing junctions as follows:

- A41 Aston Clinton Road / Aylesbury Road three-arm roundabout;
- A41 Aston Clinton Road / New Road priority junction;
- A41 Aston Clinton Road / Richmond Road / Bedgrove signalised junction incorporating Broughton Lane;
- A41 Aston Clinton Road / A4157 / King Edward Avenue signalised junction;
- A41 Aston Clinton Road / Park Street / Tesco / Walton Road five-arm roundabout;
- A413 Walton Street / A413 Wendover Road / Stoke Road gyratory;
- A413 Wendover Road / Camborne Avenue three-arm roundabout;
- A413 Wendover Road / Silver Birch Way three-arm roundabout;
- A413 Wendover Road / A4010 Station Road three-arm roundabout;
- A4010 Station Road / A4010 Risborough Road / B4443 Lower Road three-arm roundabout;
- B4443 Lower Road / Winterton Drive / Stoke Mandeville four-arm roundabout;
- B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue four-arm roundabout;
- A418 Oxford Road / Ellen Road / Thame Road South four-arm roundabout;
- A418 Oxford Road / Coldharbour Way three-arm roundabout;
- A413/ Eastcote Road priority junction.

5.43 Of these 15 junctions, consideration of more detailed ATM data indicated that a total of 4 of the junctions had no increase in peak hour traffic flows of more than 5% at any arm on the junction. The impact was therefore considered to be acceptable at these 4 junctions and they were excluded from further assessment. This left 11 existing junctions that required more detailed assessments of impact. In addition to the 11 existing junctions a total of 9 proposed junctions were identified for assessment. These were:

- B4443 Lower Road / Stoke Mandeville Relief Road three-arm roundabout, (incorporating the SEALR in the Do Something scenario);

- Proposed A413 Wendover Road / Eastern Link / SEALR four-arm roundabout;
- A418 / ELR (North);
- ELR (North) North Roundabout;
- ELR (North) South Roundabout;
- ELR (South) North Roundabout;
- ELR (South) South Roundabout;
- SLR / New Road;
- SLR / Marroway.

The following section provides more information on the assessments of those junctions that are new, sensitive or experienced impacts that should be considered for mitigation.

Lower Road/SEALR/ Stoke Mandeville Relief Road Roundabout

5.44 This junction does not currently exist on the network; however, it will come forward as a three-arm roundabout once the HS2 delivered Stoke Mandeville Relief Road is open, and as a four-arm roundabout following the opening of the SEALR. The junction has been assessed as the four-arm roundabout proposed for the SEALR as it is currently intended that SMRR and SEALR will be constructed at similar times. Traffic flows for the eastern arm (SEALR) have been removed in the Do Nothing Scenarios. A drawing extract showing the proposed junction layout is set out below:

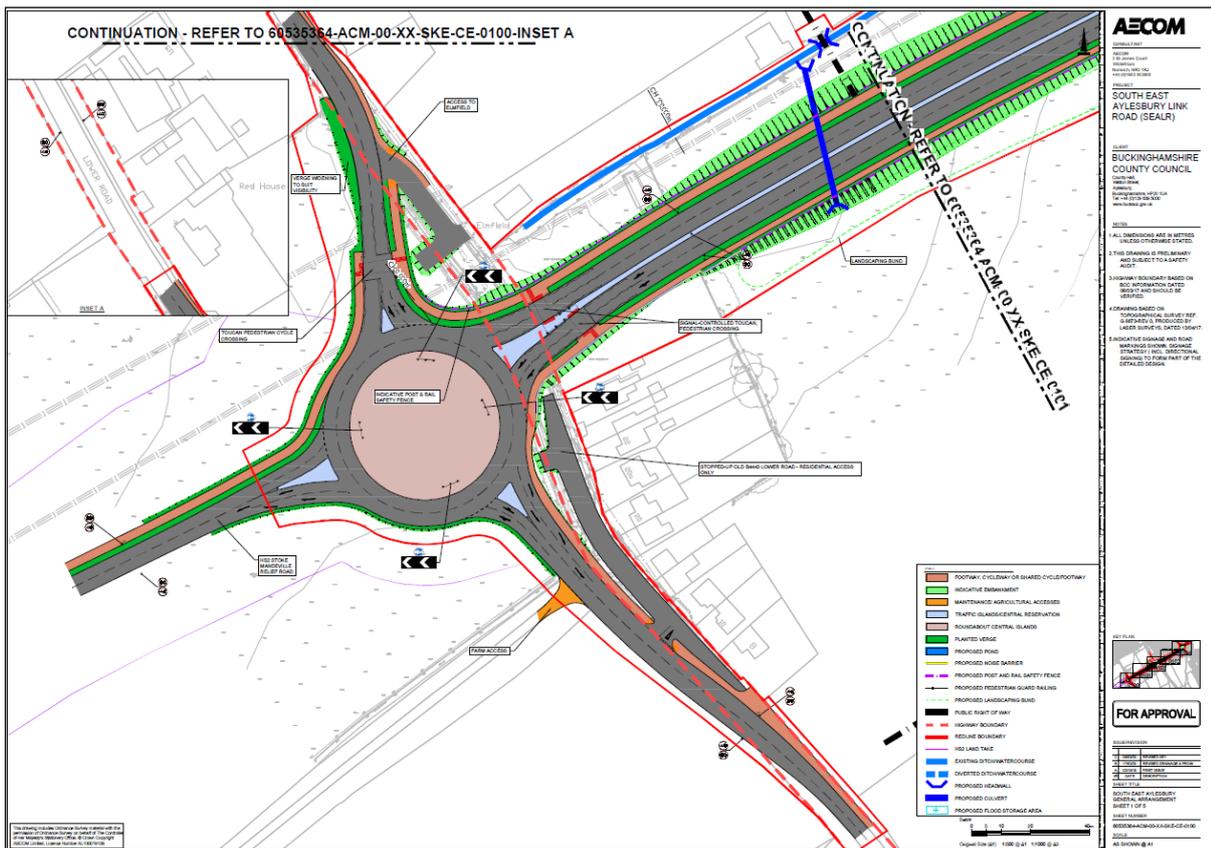


Figure 2: Proposed Lower Road / SEALR Roundabout

5.45 In the 2021 scenarios the junction will operate with a significant amount of spare capacity as show in the following table (Max RFC below 0.85).

Table 22 – Junction 15: B4443 Lower Road / Stoke Mandeville Relief Road/ SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	0.61	1.5	0.54	1.2
2021(a) Do Something	0.63	1.7	0.73	2.7
2021(b) Do Nothing	0.63	1.7	0.56	1.3
2021(b) Do Something	0.77	3.4	0.79	3.7

5.46 The junction has been modelled in standard format and in lane simulation format, which includes simulation of the operation of individual lanes, in the 2036 scenario. The results are summarised in the following table:

Table 21. Junction 15: B4443 Lower Road / Stoke Mandeville Relief Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.59	1.4	0.63	1.7
TA 2036 Do Something	0.68	2.1	0.71	2.4
2036 Do Nothing	0.64	1.8	0.65	1.9
2036 Do Something	0.84	5.0	0.83	4.4
Lane Simulation Results				
2036 Do Nothing	0.99	162.2	1.00	248.8
2036 Do Something	0.97	58.5	0.88	7.1

5.47 The 2036 standard analysis shows that the junction can operate within capacity. However, the results for the lane simulation version show queuing in the AM peak hour, although it also shows a significant improvement compared to the 2036 Do Nothing scenario (ie with SMRR and without SEALR). It is therefore considered that the proposed roundabout operation is adequate as the operation improves with SEALR.

A413 Wendover Road/SEALR Roundabout

5.48 It has previously been agreed that this junction will be modelled as a three-arm roundabout with just SEALR and a four-arm roundabout in a cumulative scenario with Hampden Fields and the Southern Link Road. The proposed junction arrangement in the four-arm scenario is shown below:

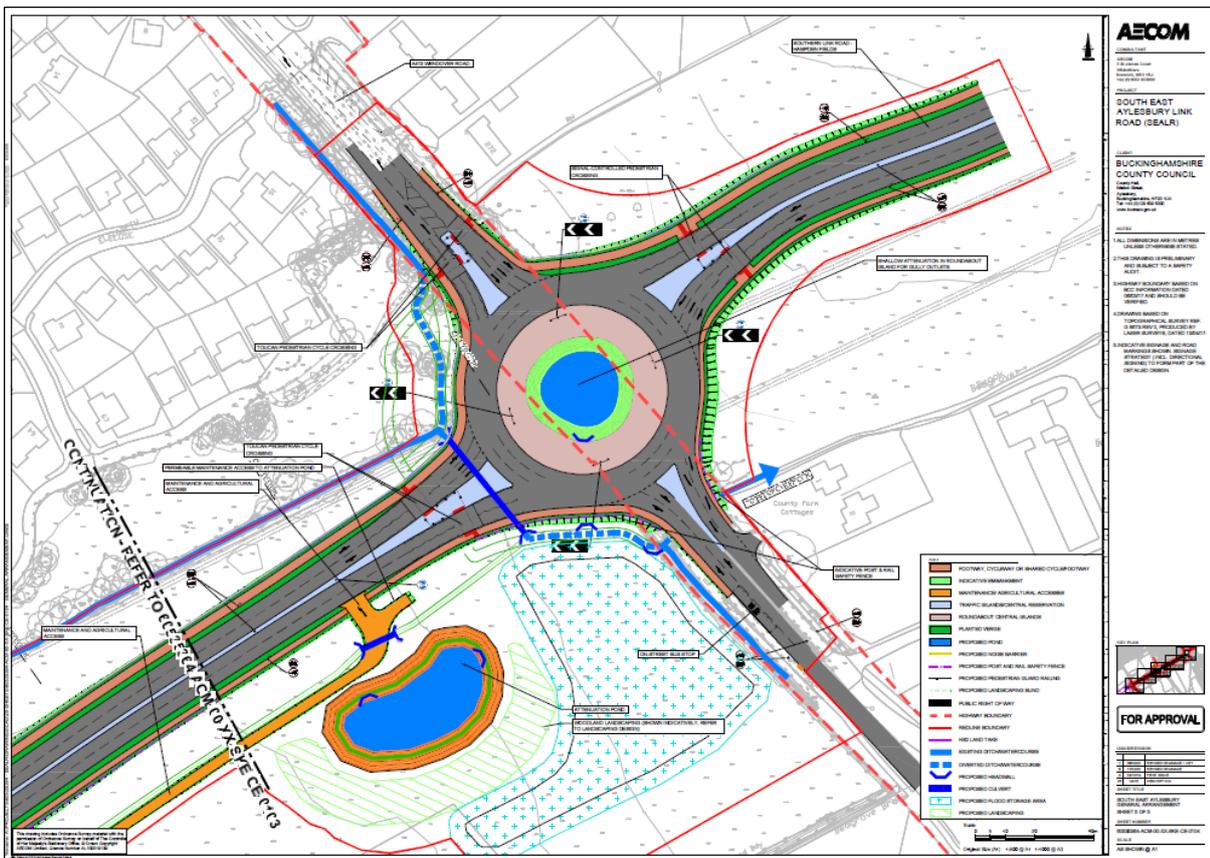


Figure 3: Proposed Wendover Road / SEALR Roundabout

5.49 The 2021a AM peak (no SLR through Hampden Fields) shows a maximum Ratio of Flow to Capacity (RFC) of 0.98 with a queue of 26 vehicles. However, this reduces to an RFC of 0.70 and queue of 2.2 in the 2021b scenario (with SLR and ELR(s)). It is considered that 0.98 is acceptable as an interim scenario as the operation of the junction improves in all other scenarios. The results are summarised below for ease of reference:

Table 30 – Junction 16: A413 Wendover Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	0.98	26.0	0.72	2.6
2021(b) Do Nothing	0.71	2.5	0.56	1.3
2021(b) Do Something	0.70	2.2	0.73	2.6

5.50 The 2036 standard analysis shows that the roundabout can operate within capacity. However, the 2036 lane simulation results show that the junction is approaching capacity in 2036 with developing queues. In determining the acceptability of the junction operation it should be noted that this scenario includes the entire VALP development along with background traffic growth, which may not fully materialise,

given the changes to working habits and travel patterns for example as a result of Covid. As such, it is therefore considered to be a worse case which may not materialise. The capacity assessment results are summarised below for ease of reference:

Table 22. Junction 16: A413 Wendover Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.76	3.1	0.66	1.9
TA 2036 Do Something	0.68	2.1	0.70	2.3
2036 Do Nothing	0.57	1.3	0.61	1.6
2036 Do Something	0.84	5.0	0.87	6.0
Lane Simulation Results				
2036 Do Nothing	0.70	3.8	0.63	4.2
2036 Do Something	0.96	86.2	0.93	50.2

A413 Walton Street / Wendover Road / Stoke Road (Walton Street Gyratory)

5.51 This existing junction takes the form of a signalised gyratory. The model that was agreed with the Highway Authority in December 2020 has been used for both the 2021 and 2036 analyses. All flows have been checked and are correct. The junction layout is shown below:



Figure 4: Walton Street Gyratory

5.52 The results of the 2021 capacity assessments are summarised in the following table:

Table 3. Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021 (a) Do Nothing	114.5%	91.0	102.6%	47.2
2021 (a) Do Something	112.9%	74.8	97.0%	29.4
2021 (b) Do Nothing	108.8%	69.8	97.9%	29.1
2021 (b) Do Something	101.6%	35.2	92.8%	19.6

5.53 Table 3 demonstrates that the junction currently operates over capacity with the maximum degree of saturation in excess of 100%. The results also show that the addition of SEALR in the “Do Something” scenarios provides an improvement at the junction in 2021 with a significant reduction in the maximum queue. The capacity assessment results in the 2036 scenarios are summarised in the following table:

Table 13. Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
TA 2036 Do Nothing	122.7%	75.8	117.8%	69.8
TA 2036 Do Something	114.8%	80.4	112.1%	86.9
2036 Do Nothing	121.6%	133.7	105.2%	54.0
2036 Do Something	116.0%	97.4	99.3%	29.8

5.54 The 2036 “Do Something” results with SEALR continue to show that the scheme will provide an improvement in queueing and delay at the gyratory when compared to the 2036 Do Nothing scenario. The scheme therefore achieves its aims of offsetting the impacts of HS2’s SMRR as well as contributing to the broader aims of the VALP and the Aylesbury Transport Strategy.

A41/ Bedgrove / Broughton Lane/Richmond Road

5.55 Bedgrove/ A41 is currently a staggered junction with Broughton Lane. A mitigation scheme is proposed to divert Richmond Road to connect with Broughton Lane, as shown on the plan below. This mitigation is to be provided by SEALR and 2 other planning applications which recently received permission, Westonmead Farm (17/04819/AOP) and Land South of Aston Clinton Road (18/02495/APP). Should other planning applications receive planning permission which require this scheme to

mitigate their own impacts, it is anticipated that those applications will also significantly contribute to this mitigation scheme.

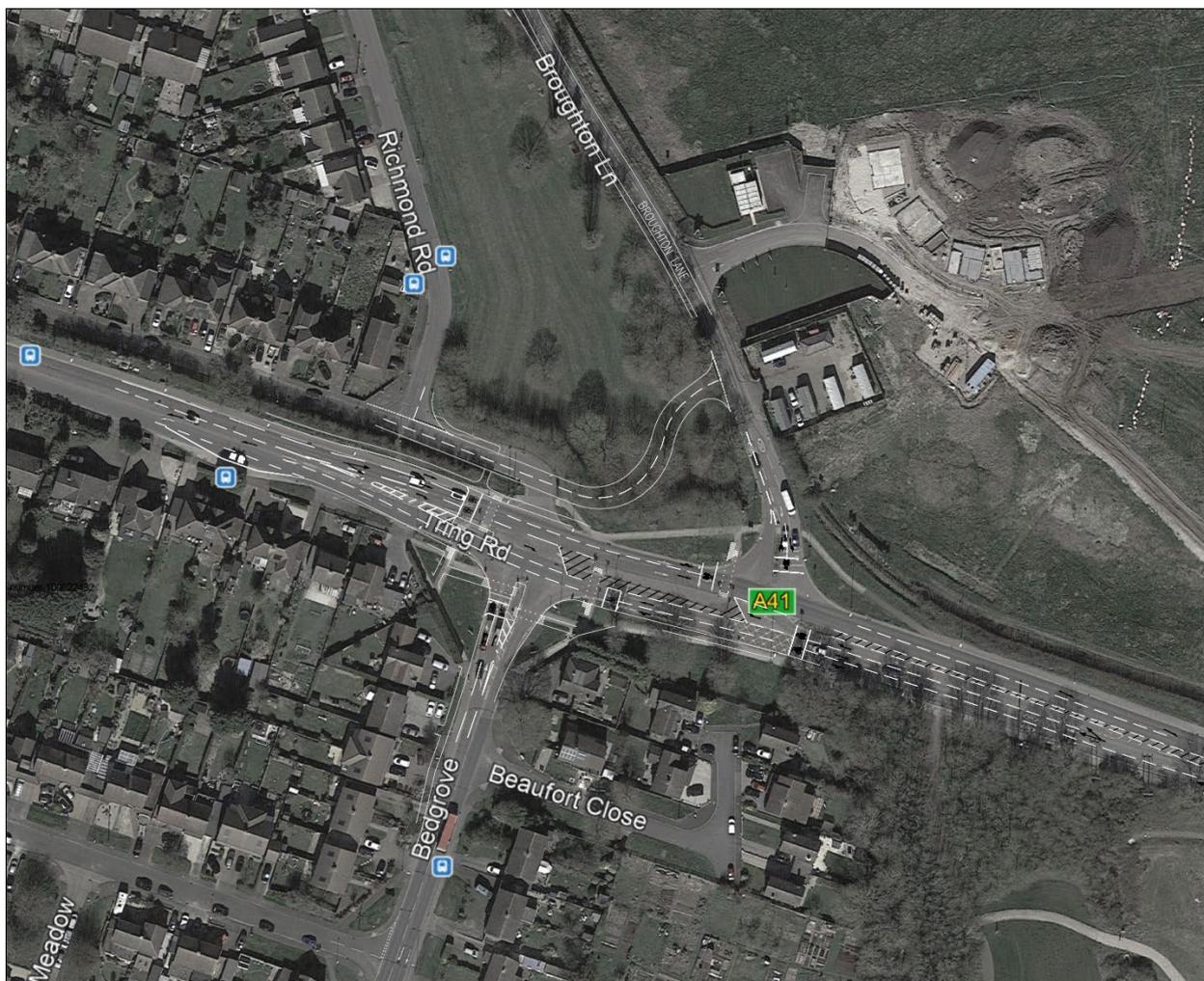


Figure 5: Proposed A41/ Bedgrove junction Mitigation Scheme

5.56 Table 16 shows that in the 2021(a) Do Nothing scenario, the junction exceeds capacity and the opening of SEALR worsens the operation of the junction slightly. With the proposed mitigation scheme, the junctions perform within capacity and SEALR improves the operation of the junction.

Table 16 – Junction 3: A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane)

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	126.3%	77.2	130.8%	102.2
2021(a) Do Nothing	247.2%	240.0	170.1%	195.5
2021(a) Do Something	259.2%	254.7	196.6%	230.0
Changes to junction layout				
2021(b) Do Nothing	66.0%	14.8	59.2%	15.3
2021(b) Do Something	58.5%	12.7	51.8%	11.5

5.57 The modelling of 2036 shows an improvement in the operation of the junction with the SEALR in place, especially in the PM peak period with the RFC reducing from 101.8% (exceeding theoretical capacity) to 77.5%.

Table 10. Junction 3: A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane)

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
Changes to junction layout				
TA 2036 Do Nothing	102.4%	45.0	84.0%	26.6
TA 2036 Do Something	72.0%	15.9	69.4%	19.2
2036 Do Nothing	80.2%	22.9	101.8%	58.9
2036 Do Something	79.2%	20.8	77.5%	17.6

5.58 The capacity assessment results above show that the mitigation scheme has benefits to the operation of the highway network that offset the impacts of the SEALR scheme. Some representations have questioned the deliverability of this improvement scheme due to land availability and other consenting requirements. However, the Councils’ legal team have confirmed that the land in question has neither been registered under the Commons Act, nor recorded as a Town or Village Green. Legal have further confirmed that the highways scheme is deliverable.

Junction 4: A41 / A4157/ King Edward Avenue

5.59 This is a staggered signalised junction that was implemented as part of the ARLA mitigation works in c2013 and is identified below for ease of reference.



Figure 6: A41 / King Edward Avenue

5.60 In the 2021(a) scenario the junction would operate within capacity in the AM peak hour but there would be a slight worsening in the Degree of Saturation (DoS) in the PM peak which is already over capacity. However, in the 2021 (b) scenario with cumulative development the SEALR significantly reduces saturation and queues, especially in the PM peak where the RFC reduces from 104.6% to 96%. Any improvements to this junction are not considered necessary for limited interim impacts, the justification for which falls away as additional link roads come on line. Whilst there is an increase in DoS the capacity results suggest that the maximum queue reduces. As such, the impact on this junction is considered acceptable.

Table 2. Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	94.2%	35.3	88.7%	22.4
2021 (a) Do Nothing	79.6%	24.9	110.8%	78.1
2021 (a) Do Something	82.1%	29.6	118.6%	47.4
2021 (b) Do Nothing	83.2%	16.8	104.6%	57.3
2021 (b) Do Something	77.8%	20.8	96.0%	34.4

5.61 In the 2036 assessment scenario, the results illustrate that the implementation of SEALR in the 2036 Do Something scenario will provide an improvement in queueing and degree of saturation at the junction compared to the 2036 Do Nothing scenario. Mitigation measures are therefore not required.

Table 12. Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	132.5%	205	157.7%	232.3
2036 Do Something	121.4%	142.3	149.9%	198.2

A413 / Eastcote Road Junction

5.62 The 2021 modelling for this A413 / Eastcote Road ghost island priority junction shows that the junction operates over capacity in the existing situation and will deteriorate further in future years with or without the addition of SEALR.

Table 30. Junction 24: A413 Wendover Road / Eastcote Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2021 (a) Do Nothing	8.02	176.0	1.49	56.2
TA 2021 (a) Do Something	999999999	223.0	999999999	155.0
TA 2021 (b) No Nothing	3.07	215.6	2.29	124.6
TA 2021 (b) Do Something	3.11	178.9	11.45	232.8

5.63 The results show that in all the 2021 scenarios assessed, some form of improvement works would be required. A number of arrangements were considered during the preparation of the TA and due to the heavy northbound flows along the A413, it was considered that retaining a priority junction but in the form of a left-in left-out arrangement would provide the best results within the land available. This arrangement, shown on the plan below, would result in the use of both the Camborne Avenue and SEALR roundabouts for the purposes of u-turning. The results of the left in/left out junction arrangement assessments are summarised in the following table:

Table 31. Junction 24: A413 Wendover Road / Eastcote Road - Left In / Left Out Arrangement

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2021 (a) Do Something	1.50	117.3	1.15	35.2
TA 2021 (b) Do Something	0.71	2.4	0.79	3.6
2036 Do Something	1.52	125.4	1.61	143.1

5.64 The modelling shows that the left in left out arrangement would result in the junction operating significantly better than in the Do Nothing scenarios in the 2021 scenarios. It is therefore considered that this arrangement would provide an improvement and would mitigate the impacts of SEALR.

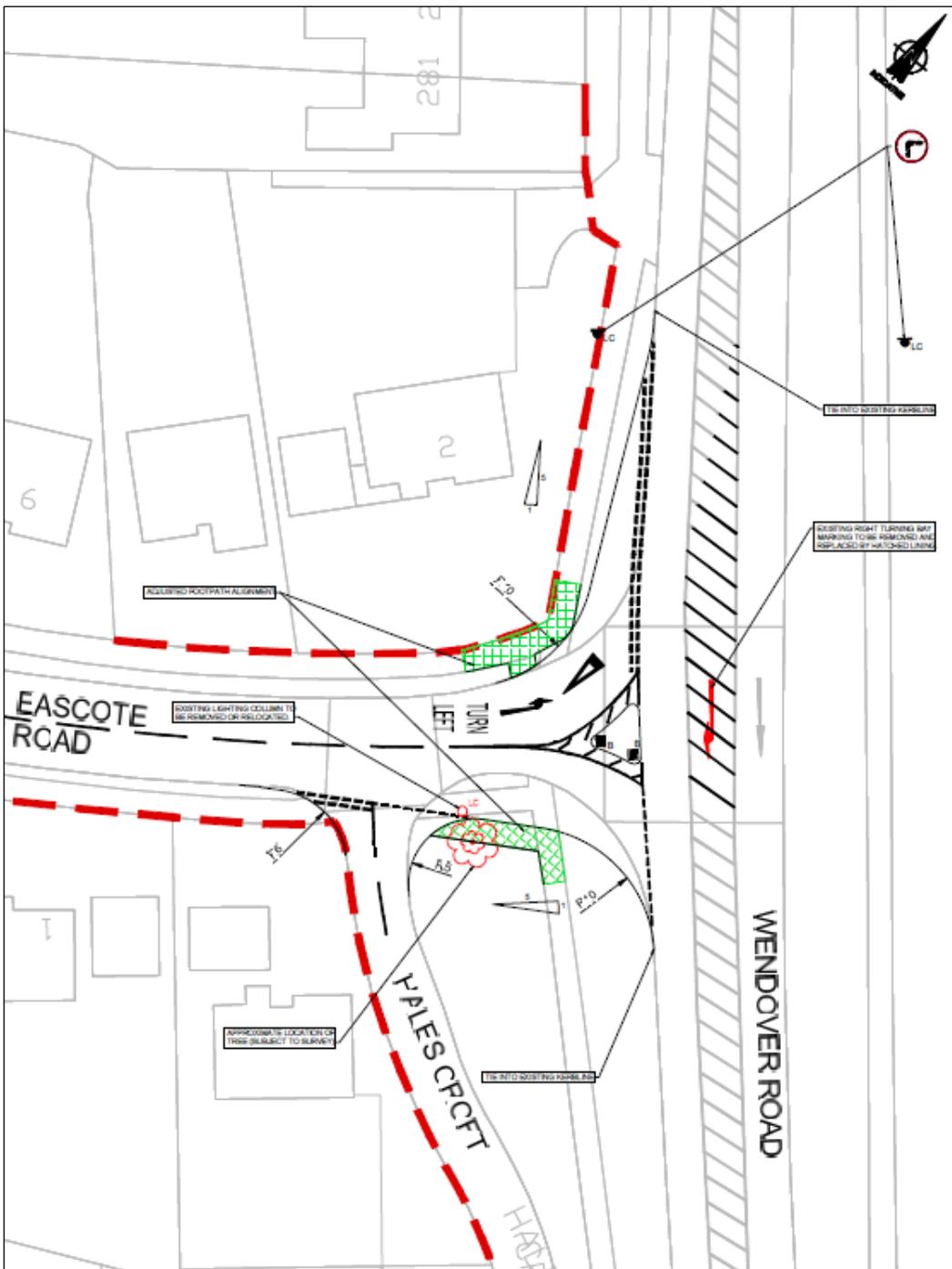


Figure 7: A413 / Eastcote Road Mitigation Option 1

5.65 In order to respond to 2036 traffic demands it is considered that both the A413 Wendover Road/Cambourne Avenue and A413/Eastcote Road Junctions could be signalised and linked such that they operate as one large junction rather than two independent junctions. An indicative preliminary design has been derived by the applicants and assessed using the 2036 Do Nothing and Do Something flows. An indicative layout is shown in the following extracts:

reach the levels identified for 2036 or a change of layout at the Camborne Avenue junction be required.

Table 32 – Junction 7 & 24: A413 Wendover Road / Camborne Avenue signalised three-arm junction and A413 / Eascote Road three-arm junction

Scenario	Junction 7				Junction 24			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	77.5%	16.2	83.9%	21.6	73.0%	16.7	71.3%	15.0
2036 Do Something	85.8%	24.4	83.6%	20.8	87.5%	23.0	88.7%	24.4

5.67 The TAA states that the 2036 flows are very robust and with changes in working practices it is unlikely that the levels of traffic identified by 2036 would come forward in the future. The applicant has committed to consult with residents regarding any changes to the Eastcote Road junction before they take place. As such, whilst the TAA has identified mitigation measures that could be introduced, the applicants propose to:

Eastcote Road:

1. Consult with residents on the proposed Left in Left Out junction prior to opening of SEALR
2. If positive response, proceed to implement the Left in Left Out arrangement ahead of opening of SEALR
3. If negative response, no mitigation will be provided prior to opening and a further consultation will be held regarding a signalisation scheme within 12 months of the opening of the ELR and SLR
4. If positive the Council will agree to implement the signals scheme within 24 months of opening of ELR and SLR
5. If negative no further action will be required.

Cambourne Avenue:

To be signalised within 24 months of opening of the ELR and SLR

B4443 Lower Road/Winterton Drive/Stoke Mandeville Hospital & B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue

5.68 The Lower Road / Winterton Drive / Hospital and the Lower Road / Mandeville Road / Stadium Approach / Churchill Avenue junctions are currently roundabouts located very close to each other. The TA assessed the impacts of the scheme on the basis of a series of improvements that were originally proposed by others. However, the applicants have adopted these improvement works which are shown in the following drawing extract:

Table 16. Junction 11: B4443 Lower Road / Winterton Road Stoke Mandeville Hospital – Hampden Fields Do Minimum Comparison

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
Existing Roundabout – HF 2036 Do Minimum	1.12	187.4	1.13	166.5
2036 Do Something	0.90	8.9	1.03	65.8

5.71 The table above shows that the existing roundabout in 2036 without SEALR will operate worse than the 2036 Do Something scenario with SEALR and without network improvements. This is because the 2036 Do Something scenario includes the SW Aylesbury link road as cumulative development which would negate the need for improvements to this part of the network. The mitigation scheme proposed would therefore be required only to mitigate the standalone impacts of with SEALR.

Construction

5.72 The main construction compound would be located to the west of the A413 and accessed from a new access on the A413 via a new haul road. Secondary site compounds will be provided adjacent to the railway line. These will be accessed via haul roads within the site boundary. Further smaller site compounds will be provided adjacent to the roundabouts. The core construction of the SEALR would take place over a 12 month period, preceded by a period of enabling works.

Conclusion on transport matters

5.73 In acknowledging the significant local objection to the development of the site, the Council have spent considerable time in assessing the details and impacts relating to transport matters. Further information was requested by Highways Officers and has been provided to their satisfaction. It is acknowledged that construction traffic on the road network will impact on access to homes, healthcare services and other social infrastructure during the construction phase, however, these effects will be mitigated through the implementation of traffic management measures and a CTMP can be secured by condition to ensure that the details are acceptable.

5.74 The 2021a standalone assessment has demonstrated that SEALR would deliver its proposed aim of mitigating the traffic impacts of HS2 created by the construction of the SMMR. The 2021b and 2036 assessments have demonstrated that it will also provide further benefits to the transport network and fulfil part of the aims of the Aylesbury Transport Strategy and provide essential VALP mitigation. The traffic impact of the SEALR is therefore considered acceptable subject to the following mitigation measures:

- Commitment to the mitigation works to the Bedgrove / Broughton Lane junction;

- A413 / Eastcote Road left in / left out consultation with possible implementation to deal with interim impacts;
- A413 Wendover Road/Cambourne Avenue and A413/Eastcote Road Junction signalisation subject to further consultation and implementation within 24 months of opening of SLR and ELR(s);
- Commitment to the Lower Road improvements to mitigate standalone traffic impacts without the SW Link Road.

5.75 The ES concludes that the SEALR would have a positive effect on traffic congestion. Having regard to the above matters it is considered that overall the development would be acceptable on transport grounds, that it would significantly address the congestion problems locally in the town and that subject to the imposition of conditions as appropriate, the development would accord with policies T1 and T2 of the WTNP, emerging policies D-AGT1, T1, T2 and T3 of the VALP and with the NPPF. As such it is considered that this matter should be afforded significant positive weight in the planning balance.

Impact on Public Rights of Way Railway Crossing

WTNP Policy T2 (Strategy for improving pedestrian and cycle connections within the Parish and to surrounding area)

AVDLP – GP84 (Public rights of way)

Emerging policy T7 (Footpaths and cycle routes) (*moderate weight*)

5.76 WTNP Policy T2 (Strategy for improving pedestrian and cycle connections within the Parish and to surrounding area) states that development proposals must demonstrate how existing sustainable transport links can be accessed from the site and where necessary, secure improvements to ensure safe access for pedestrian and cyclists in line with current industry standards and the Highways Authority policies. Policy GP84 of the AVDLP states that in considering applications for development affecting a public right of way the Council will have regard to the convenience, amenity and public enjoyment of the route and the desirability of its retention or improvement for users, including people with disabilities and these aims are carried through into the emerging VALP policy T7.

5.77 A number of PRowS pass through the site and include:

- SMA1/2, a bridleway which starts at Wendover Road immediately north of the Stoke Grange roundabout, briefly heads west before turning south away from the alignment of the SEALR towards Stoke Mandeville.
- SMA2/1-2/3, a footpath which runs through the site in a broad east to west direction closely following the alignment of the SEALR linking Lower Road with Wendover Road. This footpath crosses the Aylesbury to London Marylebone railway line at an uncontrolled level crossing. Stiles are provided either side of the railway to control access to the Network Rail land.

- SMA3/1-3/2, a footpath which runs through the site in a broad north to south direction bisecting the alignment of the SEALR.

- 5.78 The Transport Assessment provides survey results on pedestrian flows for the PRowS within the vicinity during the weekdays and weekends showing that usage during the weekend was found generally higher than during the week, although generally, the pedestrian flow in this area is low.
- 5.79 The proposed development will involve the temporary diversion of PRow SMA 2/2 around the proposed construction compound adjacent to the Aylesbury-London railway line for approximately 500m. This route is part of three connected segments of PRowS which connects users between Lower Road and Wendover Road. The route has on average 25 users per day and the diversion would lead to an increase in journey length of some 200m. The development would require the permanent diversion of PRow SMA3/1 (between the hospital and towards the station) onto Lower Road for approximately 1.1km. Users of this route would be required to travel near to extensive construction works and could therefore discourage its use at this time.
- 5.80 Once the SEALR is operational the application includes a shared cycle/footway of three metres to the north and south sides of the link road. Pedestrians are likely to use this footway to travel between Lower Road and Wendover Road. However, pedestrians seeking amenity value are more likely to use the network of PRowS located to the south which transverse through agricultural fields. As discussed above the development will require the permanent diversion of PRow SMA3/1 onto Lower Road for approximately 1.1km and therefore whilst it currently runs through agricultural fields it would as part of the development be required to cross the SEALR. Following construction and once the SEALR is operational, PRow SMA1/2, SMA2/2 and SMA2/3 will not be affected.
- 5.81 It is clear that during the construction phase users of the local PRow will be significantly affected by the development but following completion this will be less so for the majority of the footpaths. It is not considered that in the longer term the SEALR would result in significant numbers of people being discouraged from using the footpaths and it must be born in mind that these rights of way also transverse through the emerging allocation within VALP of AGT1, South Aylesbury and so it must be anticipated that there would be some change.
- 5.82 During the construction phases the development would also involve the temporary disruption of cycle routes known as Jetway and Amberway on Lower Road and Wendover Road which connect Aylesbury Town centre with Stoke Mandeville rail station. The application details state that these routes will remain accessible however they will be disrupted and diverted during the construction of the new junctions. However, the applicants consider that this should not discourage users from travelling on these cycling routes as traffic mitigation measures will ensure minimal journey delays between the rail station and the town centre.

5.83 Once the SEALR is open users of the Amberway cycle route would be required to cross a new junction on Wendover Road. Toucan crossings will be provided on the western and northern arms of this junction to enable cyclists to cross the junction safely. Users of the Jetway cycle route will also be required to cross a new junction on the A413 Lower Road which would comprise a controlled crossing. In addition, the designated shared cycle/footway around the western and northern arms of the A413 Lower Road roundabout will be a minimum width of three metres. The new shared/cycle footway along the length of the proposed dual carriageway would also connect the existing cycle routes creating an east-west cycle route. This would enhance users connectivity when cycling in the local area.

5.84 In the wider context, a walking and cycling route is planned linking Stoke Mandeville Stadium and Stoke Mandeville train station which runs along the west side of the railway and can link to the cycle path along the SEALR. The aim is to complement the rehabilitation of spinal injury patients' by providing a disabled accessible route into the countryside via the Garden Way and onto Stoke Mandeville village and train station. In addition, it combines as a sustainable transport route into the AGT-1 housing areas and possible green infrastructure provision.

5.85 The Council's Rights of Way Officer has considered the details of the development and is content with the proposals for the provision of pedestrians crossing the SEALR to make their onward connections along the rights of way network and arrangements for a footway / cycleway on north and south sides of the new road complement existing walking and cycling networks. The provision of maintenance access tracks within areas dedicated as 'highway maintained at public expense' allows future connectivity for public walking and cycling routes onto the proposed Stoke Mandeville Hospital to Stoke Mandeville train station walking and cycling route from the SEALR. Provision of areas south of the SEALR as highway land allows for a choice of future walking and cycling links from the SEALR footway / cycleway into new housing areas, as the AGT1 allocation design evolves.

5.86 Most, if not all, of the area up to the red edge flanking the SEALR (the embankments and surrounding land), are to be dedicated as public highway land, which allows a choice of routes to be provided along the embankments at appropriate desire-line points into AGT1 housing areas. Steps can be provided during construction directly up to the SEALR cycleway at points close to the bridge structure to allow convenient access from south-west and south-eastern AGT1 areas. Disabled accessible provision can be made further east and west as the embankments disappear and the ground flattens. The north eastern parcel of land between SEALR and the built-up area of Aylesbury becomes public open space.

5.87 With regards to the railway crossing, Network Rail initially had concerns regarding the safety of pedestrians crossing the railway. Further work was undertaken by the applicant in this regard and evidence provided to indicate that users would not be distracted by moving traffic movements when they were supposed to be looking left

and right for trains coming. Safety would not be compromised. Moreover, evidence was provided that the bridge abutments didn't impact on pedestrian sight lines looking north from the footpath crossing. There is no evidence therefore to support the closing of this crossing.

5.88 The ES concludes that the SEALR would disrupt and divert the existing PRow network and cycling routes during the construction phase but that during the operation phase the scheme would provide high quality walking and cycling facilities which will improve accessibility to open spaces in the local area which would have a positive effect and that overall there would not be a significant effect. In summary it is considered that the impact on existing PRow and cycle routes would not be significant having regard to the overall scheme. In addition the new shared/cycle footway will connect the existing cycle routes creating an east-west cycle route which will enhance users experience of cycling in the local area. As such it is considered that the development would accord with policy GP84 of the AVDLP and with emerging policy T7 of the VALP and with the NPPF in this regard.

Landscape Impact

WTNP Policy H2: Development Design in the Neighbourhood Area

AVDLP Policies GP.35 (Design of new development proposals) and GP.38 (Landscaping of new development proposals)

Emerging VALP policies BE2 (Design of new development) D1 Delivering AGT, and NE4 (Landscape character and locally important landscape) (*moderate weight*)

5.89 The NPPF sets out that the Government attaches great importance to the design of the built environment and that good design is a key aspect of sustainable development. WTNP policy H2 amongst other things states that proposals for development in the neighbourhood area will be supported provided that the scale, density, height, massing, landscape design, layout and materials, reflect the character and scale of the surrounding buildings and of distinctive local landscape features and that it retains and enhances natural boundaries, including hedgerow and water courses, which contribute to visual amenity or are important for their ecological value.

5.90 AVDLP policy GP35 is consistent with the objectives of the NPPF and states that the design of new development proposals should respect and complement; the physical characteristics of the site and surroundings, the building tradition, ordering, form and materials of the locality; the historic scale and context of the setting; the natural qualities and features of the area; and the effect on important public views and skylines. AVDLP policy GP38 is also in conformity with the NPPF and states that new development schemes should include landscaping proposals designed to help buildings fit in with and complement their surroundings and conserve existing natural and other features of value as far as possible.

5.91 Emerging Policies D1 and BE2 of VALP reflect these. Policy NE4 of the VALP seeks to ensure that scheme respect the local context and landscape character of the area.

5.92 The applicant has submitted an Environmental Statement (ES) in support of the application. Chapter 7 of the ES presents a Landscape and Visual Impact Assessment (LVIA) of the proposed scheme. The LVIA sets out the applicant's assessment of the landscape and visual 'baseline' and also the applicant's conclusions on the potential landscape and visual effects of the proposed development on that baseline. Following comments from the Council's Landscape officer, that the applicant had unreasonably failed to identify additional Significant Residual Effects on identified 'representative receptors' and thereby reaches conclusions that somewhat underplay the extent of the residual (permanent) effects that would result from the proposed development, further assessments were undertaken and updated plans and details (to also address design changes) were submitted. Nineteen representative viewpoints were considered as part of the updated details including points along the PRow's, residential boundaries, recreational users and road users.

Landscape and Settlement Character and Visual Impacts:

5.93 *Landscape character:* The site is located within the Southern Vale Landscape Character Area which is characterised by flat landscape in the north rising gently to a rolling land form on the southern edge. There is evidence of parliamentary enclosure with streams and ditches draining off the chalk scarp to the south marked by belts of mature black poplar. The landscape continuity is interrupted by development and communication corridors but there is a predominance of large open arable fields, pockets of grazing land and smaller field parcels associated with settlements. Distinctive features comprise mature black poplar, historic moated sites and former fish ponds, the Aylesbury Arm of the Grand Union Canal on the northern boundary, vernacular buildings in Weston Turville, Manor House, Motte and Bailey Site and Church at Weston Turville, moated sites at Aston Clinton, Buckland and Broughton, ancient co-axial trackways and neutral grassland. Intrusive elements in this character area include the Aston Clinton bypass and associated infrastructure, traffic on the A41 and A413, the Aylesbury to Marylebone Railway, ribbon development and associated commercial development along main highway corridors.

5.94 The ES Addendum describes the existing baseline of the landscape being generally flat topography which does not afford many opportunities for long distance or panoramic views across the wider landscape or expansive views towards the site although there are views out from the site southwards towards the Chilterns. A number and range of field boundaries including groups of woodlands or tree belts beyond the site boundary also go some way to screening and filtering views.

5.95 Within the original ES and the ES Addendum the effects on landscape character have been considered during the construction phase, upon the assumed opening of the SEALR in 2022 and after 15 years of operation (residual effects) in 2037.

5.96 During the construction phase of the SEALR the effects on the Southern Vale character area (LCA8.10) are assessed as being moderate adverse, which is considered

significant. The effects on the neighbouring Haddenham Vale (LCA 8.9) are assessed as being slight adverse, but not significant owing to the location of the LCA beyond the boundary of the site.

5.97 With regard to the operational phase, the LVIA in the ES identifies that there will similarly be a moderate adverse effect on the Southern Vale Character area (LCA8.10) which will be significant but concludes that by year 15 the residual effect (taking into account the proposed mitigation) will have lessened to the extent that it will no longer be significant on the wider Southern Vale. It is noted however that there will remain a significant residual effect on the landscape character of the site and its immediate setting.

Visual effects:

5.98 Whilst there are relatively few places where the whole of the proposed development will be visible there are a number of places where sections will be visible in relative proximity to the viewer and this includes in particular, residents on the southern edge of Aylesbury along Diane Walk and surrounding residential streets and users of the existing open space opposite.

5.99 With regards to the visual impacts during the construction phase, a range of operations will be carried out, with the potential to result in effects on visual amenity. In order to mitigate the impact of construction of the SEALR the applicant is proposing to incorporate a number of measures which will be incorporated in to the design and will be contained within a construction environmental management plan.

5.100 Landscape proposals for the scheme were developed alongside the proposed highway alignment as part of the design process and were informed by a site survey and the analysis of the existing landscape in terms of landscape elements and species composition within existing tree, woodland and hedgerows in the immediate landscape. The applicants have advised that this process informed the overall approach and mitigation strategy which was developed to reduce the effects of the scheme on the landscape in parallel with and responding to the engineering and highways layout so that the proposals respond to visibility, earthworks, infrastructure and drainage requirements for the successful operation of the site in addition to improving the overall amenity and ecological value of the landscape.

5.101 The landscape proposals would include the following within a landscape management plan:

- All existing trees and shrubs to be retained shall be protected;
- Planting to screen the development to be consistent with that of the adjacent retained or lost landscape elements and will provide an opportunity to improve the diversity of species and age ranges of trees on site to increase the future resilience and amenity contribution of the tree and shrub stock, with hedgerow planting to create a network of habitat corridors

- Woodland planting is intended to provide visual screening from adjacent areas of housing, from footpaths or places of work and reinforce boundary vegetation structure;
- Planting to attenuation features as grassland to provide easy access to the features and low maintenance;
- Public open space to create an area of recreation with trees, margins of wildflower and hedgerow planting for the benefit of local wildlife and biodiversity;
- Heavy standard trees are proposed in several sensitive locations adjacent to existing houses to replace boundary vegetation lost and provide more immediate visual screening to adjacent residential properties;

5.102 The visual impact assessment set out in the ES has been undertaken on the basis of nineteen selected 'representative' viewpoints. The ES has again assessed the potential effects of the proposed development during the construction phase of the project, after one year of operation and the 'residual' effects after fifteen years.

5.103 During the construction phase the ES identifies significant visual effects at seventeen of the viewpoints. These significant effects are also identified at the same seventeen viewpoints at 'year 1', however by 'year 15' the proposed mitigation will have taken effect and the number of representative viewpoints that will experience any significant 'residual' effects will have reduced to five, these being to users of the public right of way to the south of the scheme (SMA/2/3), and residents facing the development along Dalesford Road, Diane Walk, Charles Close and Patrick Way.

5.104 The night time assessment identified no likely significant effects during construction, the first year of operation or at year fifteen. The development would be seen in the context of the built up area of Aylesbury and the existing lighting columns on Wendover Road and Lower Road, adding to the existing suburban district brightness. It is noted that only the roundabouts are to have lighting with the dual carriageway being unlit apart from solar studs to the footpath/cycleway. Details of the lighting to be used and illuminance and light spill can be reasonably secured by condition having regard to the local and wider impact that the lighting could have.

Impact on the setting of the AONB :

5.105 The site is a low lying and generally flat landscape located to the south of the town of Aylesbury with near views available from surrounding housing and footpaths within the site. The Chilterns Area of Outstanding Natural Beauty (AONB) rises abruptly from the foothills of the Chilterns between 4.2km and 4.6km to the south. The ES identifies that one of the special qualities of the Chilterns AONB is that the main ridge of the escarpment provides long panoramic views across the lower lying valleys to the north and west towards the application site which is barely discernible in the context of Aylesbury and surrounding settlements and existing vegetation. Large agricultural fields at the base of Coombe Hill stretch into the middle distance with boundary vegetation and woodland groups punctuated by buildings. Large, open skies are an important part

of the view as a result of the elevated position. The view from Coombe Hill within the Chilterns AONB is acknowledged as of regional value.

5.106 Reference to key views identified in the AONB Management Plan are made and the ES acknowledges the cumulative assessment of impacts and the cumulative work includes planning permissions in proximity of the new road. Looking at the longer term cumulative impacts, the Chilterns Conservation Board have commented that weight should be given to the longer term agglomeration of impacts, especially lighting and the need for maximum mitigation of lighting impacts and design innovations to avoid top-lit columnar lighting and commented that the cumulative impact of 10m/12m top lit columnar lighting will be far greater upon completion of the anticipated outer road to the south and south-east of Aylesbury. Conditions to address the details of the lighting and its design could be reasonably imposed to ensure that appropriate details of lighting are secured.

Cumulative Impact:

5.107 The cumulative impact of the development in association with the other developments being considered in the vicinity of the site have been assessed by the applicant. In terms of landscape effects, there will be a range of potential effects arising for the proposed mixed-use development, Hampden Fields, and associated Southern Link Road to the east of the site, where the landscape and its underlying character will be substantially different to the existing baseline and one which will be a largely built up suburban setting. As such, it will no longer comprise a setting consisting of fields and tree lined field boundaries but will comprise large areas of new development. This will also be the case for the land allocation areas directly to the north and south of the site. The land at South West Aylesbury would also no longer consist of fields and tree lined field boundaries but will comprise a large area of new development extending the existing edge and urban influences of Aylesbury towards the site.

5.108 While these developments and land allocations will bring a range of effects, the applicants consider that the contribution of the SEALR to these effects will not be a significant factor, given the scale and spread of development proposed. In visual terms, these cumulative developments would affect the views from all defined viewpoints. The viewpoints would contain a mix of built and natural features, which would replace the current agricultural fields and field boundaries. This would result in the site forming part of an urban setting, although the applicants considered that for cumulative landscape effects, the contribution of the SEALR to these effects would not be a significant factor, given the scale and spread of development proposed. When considered in relation to the additional infrastructure developments including the Southern Link Road through Hampden Fields to the east and Stoke Mandeville relief road to the west of Lower Road, the SEALR would form a short section of a wider aspirational Aylesbury orbital route, which will be set within a wider built up area. The additional sections of link road will provide further changes and effect to the landscape character of the area and upon views around the western sections of the

site. The applicants consider that the SEALR would not form the significant factor given the separate context of this infrastructure project to the west and the separate context of landscape character and visual receptors to the west of Lower Road.

- 5.109 Overall the additional cumulative effect resulting from the development, in combination with other built, approved and developing proposals is not considered to be significant and while a range of cumulative effects can be anticipated, these will be attributed to the wider context of the large mixed use developments and separate sections of the wider Aylesbury orbital route noted above which will bring about substantial change to the landscape and visual amenity resource surrounding the site.
- 5.110 Following construction and completion of the proposed scheme it will likely have a range of effects on landscape character, for example through removal of characteristic landscape elements and the introduction of uncharacteristic elements that contrast with or are incongruous in the context of the existing landscape character. Changes in views will also give rise to a range of visual effects through obstruction in views, alteration of the components of the view and opening up of new views by the removal of screening. It is likely that changes in view will be experienced from residential properties, businesses, public rights of way and public receptors during the day and at night time.

Conclusions on landscape impact

- 5.111 It is clear that, given the scale of the development, the SEALR will result in significant adverse residual landscape and visual effects to both the receiving landscape and to visual receptors (including users of PRow's, recreation areas and residents) along the southern edge of Aylesbury that lies to the north of the application site as well as to other similar receptors to the north east, south east, south west and south of the application site and this is acknowledged in the ES. Overall it is considered that the proposal would result in significant adverse residual landscape and visual effects to both the landscape character and visual receptors including users of the PRow, open space and residents along the southern edge of Aylesbury town within Stoke Mandeville Parish in the short to medium period. In cumulative terms the proposed development would be viewed in the context of the wider development as part of the development of AGT1 and wider growth of Aylesbury, coming forward as part of the VALP allocations, to a moderate adverse longer term effect. However, there will remain adverse impacts and on this basis it is considered that the development would conflict with AVDLP Policies GP.35 (Design of new development proposals) and GP.38 (Landscaping of new development proposals), emerging policies BE2 and NE4 of the VALP and with the NPPF and as such the impact on the landscape and visual effects of the development are accorded significant negative weight in the balance. In respect of WTNP Policy H2 only the eastern part of the Wendover Road roundabout falls within the neighbourhood plan area and given that the roundabout would be viewed in the context of the adjacent existing carriageway and other development it is not considered that there would be a conflict with this policy.

Agricultural Land

Emerging policy NE7 Best and most versatile agricultural land (moderate weight)

5.112 Paragraph 170 of the NPPF advises that Local Planning Authorities should take into account the economic and other benefits of the best and most versatile agricultural land (BMV) and, where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality. There is no definition as to what comprises 'significant development' in this context but the threshold above which Natural England are required to be consulted has been set at 20 hectares so the site falls below this threshold.

5.113 Policy NE7 of the emerging VALP states that subject to the development allocations set out in the VALP, the council will seek to protect the best and most versatile farmland for the longer term. The development has been accompanied by an assessment of the land as required by the policy. The policy states that where significant development would result in the loss of best and more versatile agricultural land, planning consent will not be granted unless:

- a. There are no otherwise suitable sites of poorer agricultural quality that can accommodate the development, and
- b. The benefits of the proposed development outweighs the harm resulting from the significant loss of agricultural land.

5.114 The predominant land use within the site is agricultural; the majority consists of arable farming with small fields of pasture used for sheep grazing east of Lower Road.

5.115 Within Chapter 12 of the ES it is stated that the proposed scheme will require approximately 16.69ha of land, of which approximately 2.68ha is Subgrade 3a BMV land. The remaining land is Subgrade 3b land, which is not of BMV land. It is stated that most of the effects on agricultural land and farm holdings will take place at the start of the construction period and will be permanent.

<i>ALC Grade</i>	<i>Hectares</i>	<i>%</i>
Subgrade 3a	2.68	16
Subgrade 3b	10.81	65
Other	3.2	19
Total	16.69	100

5.116 The primary potential direct effect on soil would be a loss of quality and function if it were handled inappropriately (for example, being handled or trafficked when wet and by the mixing of topsoil and subsoil on stripping). The indirect adverse effect on the soil resource would accrue mainly from the re-use of soil off-site in a manner inappropriate to its quality. The construction phase of the scheme will displace the soil resource over an area of approximately 13.49ha and will result in the in-situ capabilities

being lost. As such, it is acknowledged that the scheme would have a significant local impact on the soil generally, noting that a smaller proportion is BMV land.

5.117 The impacts on farm holdings relate primarily to the loss of land and other key farm infrastructure. The scheme will result in the loss of approximately 13.49ha of agricultural land that is currently in agricultural production. It is farmed on short-term, non-secure arrangements by local farmers who are therefore not reliant on this land for the long term viability of their businesses. Having regard to the findings of the agricultural assessment within the ES, it is accepted that the development would result in the loss of 2.68ha of best and most versatile (bmv) agricultural land. Consideration has been given to the development of this agricultural land as required by the NPPF, however, having regard to the size of the site and the extent of BMV land lost, it is not considered that this would represent a significant loss when considered in the context of the wider Aylesbury Vale area and that therefore there would not be significant loss of BMV land.

5.118 The ES concludes that there would not be a significant impact on agricultural matters. Having regard to the above comments it is not considered that the development would conflict with the emerging policy in the VALP or with the aims of the NPPF in this regard. However, having regard to the loss of some BMV land, this should be afforded limited negative weight.

Trees and hedgerows

WTNP Policy H2 (Development Design in the Neighbourhood Area)

AVDLP GP39 (Existing trees and hedgerows) and GP40 (Retention of existing trees and hedgerows)

Emerging AVDLP NE8 (Trees, hedgerows and woodlands) (*moderate weight*)

5.119 WTNP Policy H2 amongst other things states that development will be supported provided that their scale, density, height, massing, landscape design, layout and materials, including alterations to existing buildings, reflect the character and scale of the surrounding buildings and of distinctive local landscape features and that it retains and enhances natural boundaries, including hedgerow and water courses, which contribute to visual amenity or are important for their ecological value. Policies GP39 and GP40 of the AVDLP seek to preserve existing trees and hedgerows where they are of amenity, landscape or wildlife value and this is also reflected in emerging policy NE8. The NPPF also states that planning permission should be refused for development resulting in the loss of veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

5.120 A hedgerow survey and assessment and tree survey including a black poplar survey have been undertaken.

- 5.121 With regard specifically to black poplars, a total of 24 black poplars were recorded within the site, 17 of which were immature. No black poplars will be impacted as a result of the proposed scheme.
- 5.122 With input from ecology, the landscape design includes linear tree and shrub planting on either side of the road link, which will contribute to restoring severed ecological corridors across the site as a result of hedgerow removal. In addition to this, new hedgerows will be created that connect to existing habitat within the landscape in order to compensate for the loss of ecological connectivity as a result of the development.
- 5.123 Of the 15 hedgerows surveyed, four were species-rich and the remaining species-poor. None were classified as ecologically 'Important' in accordance with the guidance outlined in the Hedgerow Regulations (1997). It is anticipated that nine hedgerows will require complete or partial removal as a result of the development.
- 5.124 In order to maintain the enhancement of hedgerows once the SEALR is constructed, a five-year monitoring and management programme will be implemented post-construction. This will include weed management, litter, rubbish and debris removal; use of protective fencing, and trimming the hedge each autumn until the required height is reached (minimum of 1.4m).
- 5.125 The arboricultural officer considers that from an arboricultural perspective there are no major recommendations to oppose the application. It is recommended that an Arboricultural Method Statement forms part of the planning conditions as referenced within the existing AIA report and such a condition could be reasonably secured.
- 5.126 The ES concludes that the removal of hedgerows and trees would not result in a significant effect overall.
- 5.127 With regard to the impact on trees and hedgerows, it is considered that the development would accord with policies GP38-40 of the AVDLP and with emerging policy NE8 of the VALP and with the NPPF and as such this factor should therefore be afforded neutral weight in the planning balance.

Amenity of Local Residents

WTNP Policy H2 (Development Design in the Neighbourhood Area)

AVDLP - GP.8 (Protection of the amenity of residents)

Emerging VALP policy BE3 (Protection of the amenity of residents) and NE5 Pollution, air quality and contaminated land (both considerable weight)

- 5.128 The NPPF in its core planning principles seeks to secure a good standard of amenity for all existing and future occupants. WTNP Policy H2 states that, amongst other things, proposals for development in the neighbourhood area will be supported provided that it does not adversely affect neighbouring properties by way of loss of privacy, daylight, noise, visual intrusion or amenity. In addition, that any new development does not result in the loss of any existing publicly accessible open space.

- 5.129 Policies GP8 and GP95 of the AVDLP seeks to protect the amenities of residents and policy GP8 in particular states that planning permission will not be granted where the proposed development would unreasonably harm any aspect of the amenity of nearby residents when considered against the benefits arising from the proposal, and emerging policy BE3 reflects this.
- 5.130 As discussed above one of the main aims of the SEALR in association with the other link roads is to relieve traffic congestion and this will be reduced along the B4443 and A413. The application details advise that the B4443 will experience a 9% reduction in traffic towards Stoke Mandeville Hospital and the A413 will experience a reduction of 40% reduction in traffic towards the Stoke Mandeville Rail station. This will enable residents of surrounding settlements to have improved access to Aylesbury, including Stoke Mandeville Hospital and community resources in the town centre.

Air Quality

- 5.131 In terms of air quality, Officers are satisfied that a sufficient assessment of potential air quality impact has been carried out with due regard to residential properties closest to the construction, along adjacent traffic routes and the impacts on Air Quality Management Areas (AQMA) in Aylesbury. During construction there are potential impacts on both air quality and dust emissions for properties closest to the construction itself but these will be mitigated through controls agreed in the Construction Environmental Management Plan (CEMP). There are also minor impacts due to construction traffic on the Stoke Road AQMA, however, these will only be short term and are not judged to be significant. Once the road is in operation the greatest change in air quality will be in those properties adjacent to the new road but will not result in exceedances of air quality standards. Depending on other road developments being completed there are a range of beneficial effects on the three AQMA's in Aylesbury and some small benefits and dis-benefits to other properties on adjacent roads.
- 5.132 The ES concludes that the updated assessment of air quality based on traffic data for the year 2036 concludes that the scheme will not result in any significant effects.
- 5.133 Overall, on air quality, it is considered that this scheme has a positive benefit so there are no environmental health objections to the scheme. As such on these grounds the development would accord with ADVLP policies GP8 and GP95, emerging policies BE3 and NE5 of the VALP and with the NPPF and as such it should be afforded neutral weight in the planning balance.

Noise and Vibration

- 5.134 The impacts of noise and vibration have been modelled for a number of operational scenarios over a period of time. Detailed modelling of construction noise is not possible at this stage but will be completed during development of the CEMP although it is likely that some of the impacts will be significant on residential dwellings close to the construction site. The local authority also has a degree of control over construction noise through the provisions of Sections 60 and 61 of the Control of Pollution Act 1974 and the contractors will have to employ 'best practicable means' to reduce these impacts.

5.135 In terms of noise from the operation of the new highway up to 227 properties are forecast to be significantly affected by increased noise levels, the majority on the Wendover Park Estate and around the junctions with the new road. Mitigation in the form of a 3m high noise barrier is to be included in the development. Balancing these negative impacts there are smaller decreases in noise levels for some 600+ properties on surrounding roads due to changes in traffic flows in the opening year. Additional mitigation measures have been considered but confer little benefit compared with the costs involved in implementing them. The only other potential mitigation is the use of a low noise road surface. At the design speed of the proposed road the contributions to the total noise generated from the engine/drivetrain/exhaust and the wheel/road generated noise are approximately equal with engine noise being slightly higher. Engine noise becomes more prominent at lower speeds whilst at higher speeds wheel/road noise becomes increasingly dominant. Theoretically, at 40 mph, no matter how much wheel/road noise is reduced the overall reduction in noise levels can be no more than 3dB. The ES reports an estimated reduction of 2.5dB. However this reduction is based on the current mix of vehicles which are predominantly petrol/diesel driven. In the future year scenario it is highly likely that an increasing percentage of road vehicles will be electrically driven which do not produce the same level of engine/drivetrain/exhaust noise. This reduction means that the full benefits of the reduction in wheel/road noise using a low noise road surface can be realised and this may result in overall reductions greater than the 2.5dB quoted. The second aim of the Noise Policy Statement for England 2010 is to mitigate and minimise the adverse effect of noise (within the context of Government policy on sustainable development). Given that the use of a low noise road surface would contribute towards meeting this second aim the Council's Environmental Health Officer suggest that further consideration should be given during the detailed design phase to utilising low or ultra low noise road surfaces on the proposed road. Such consideration will need to include an assessment of the costs/benefits over the long term of such a solution. It is considered that such a condition would be reasonable to ensure that residential properties are adequately protected from noise and vibration. Such a solution would also ensure that any noise and vibration would not unduly prejudice the delivery of the future development comprising the AGT1 allocation in the emerging VALP.

5.136 The ES concludes that noise and vibration is expected to result in a negative health and wellbeing effect on nearby residential receptors and that for a number of properties the effect would be significant. Further mitigation would be required to reduce the significant noise and vibration effects, to include potential noise insulation packages to dwellings most affected by the scheme and low noise road surface treatment.

5.137 Overall in respect of noise and vibration it is considered that subject to the mitigation outlined above, including the imposition of conditions regarding additional noise reduction relating to the road surface and which will also require the approval of a CEMP, there would be conflict with ADVLP policies GP8 and GP95, emerging policies

BE3 and NE5 of the VALP and with the NPPF. As such this element should be afforded significant negative weight in the planning balance.

Loss of privacy/overlooking



5.138 The above diagram shows the distances between the embankment and residential properties (blue) and between the carriageway and the residential properties (red). This plan also illustrates how the route of the SEALR, through the amendments, has been moved further away from the existing properties (grey and pink annotations). The nearest properties on the Wendover Road lie approx 40m distant to the east of the proposal with the County Farm Cottages being approx. 30m distance, though the alterations to the north and south of the proposed roundabout would be largely along the existing carriageway. There are a number of properties to the north of the proposal which would be affected such as those on Charles Close which would be 45m from the embankment and 52m from the carriageway; Dalesford which would be 30m from the embankment and 61m from the carriageway and Edward Close which would be 37m from the embankment and 59m from the carriageway; the properties to the mid point of the SEALR to the north being more affected by the bridge. The bridge would have a long span of 78m at a maximum height of 10m. The Lower Road properties to the north and south of the proposed SEALR would be accessed via new cul de sacs. As discussed above, a 3m wide footpath and cycleway will be provided on the north and south sides of the SEALR. Where the link road rises up over the bridge across the railway there could be a potential for overlooking into the residential properties to the north. However, in order to mitigate against the noise generated through the use of the SEALR a 3m high acoustic fence is proposed along much of the northern side and this would effectively block any views into the properties and gardens of the nearby properties.

5.139 A number of representations objecting have referred to the loss of a view, however, there is no right to a view and this is not a material planning consideration. With regards to outlook, mitigation is proposed in the form of landscaping, including tree planting, but it is not considered that the proposed development would be so close to dwellings that the occupiers would be unduly affected by loss of light or outlook.

Conclusions on residential amenity

5.140 The Council's Environmental Health Officers have carefully considered the proposal. A draft Construction Environmental Management Plan (CEMP) has been submitted with the application and this will need to be developed into a full CEMP by the contractors during detailed design. The controls in relation to working hours, dust and air quality and noise and vibration contained in the draft CEMP appear satisfactory but will need to be finalised at a later date. A condition is therefore recommended to require the submission of a CEMP and its approval by the Council prior to the commencement of any construction and this would be a reasonable requirement.

5.141 In summary it is considered that the proposed development would not unduly harm the residential amenities of nearby properties in terms of their light, outlook or privacy. Although there will be some impact from construction traffic a condition can require the submission of a Construction Environmental Traffic Management Plan (CEMP) to ensure that amenities are adequately protected as set out above. Once operational the development would result in improved air quality overall through the reduction in congestion on the local road network and movement of traffic away from a significant number of dwellings overall. In respect of air quality the ES notes a cumulative significant beneficial impact on the Stoke Road AQMA and no significant effect on the Tring Road or Friarage Road AQMA or other sensitive receptors. In terms of noise and vibration it is accepted that there would be a negative impact in particular to dwellings closest to the site and that the ES concludes in respect of a cumulative impact that there would be a significant effect for a number of properties (major adverse impact for 98 properties and moderate adverse effect for 129 properties). Whilst mitigation is proposed through acoustic fencing and noise limiting construction and adherence to a CEMP, there would still be significant effects. It is accepted that the proposed development would have a negative impact on some properties and whilst some mitigation can be secured it is not considered that this would completely mitigate the impact, notwithstanding that a condition can require a scheme to be submitted to further reduce the effects through design (in respect of the noise reduction surface). As such there would be some conflict with Policies GP8 and GP95 of the AVDLP, emerging policies BE3 and NE5 of the VALP and NPPF advice and it is considered that overall this matter should be afforded significant negative weight in the planning balance.

Healthy and safe communities

AVDLP: GP45 (Secure by Design considerations)

Emerging VALP: policy I1 (green infrastructure) (moderate weight)

Public open space

5.142 NPPF paragraph 97 requires that the 'loss resulting from the development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location'. In emerging policy I1 of the VALP it is stated that the Council will only accept the loss of ANGSt (accessible natural greenspace standard) if:

- The ANGSt has been subject to an assessment which shows it to be surplus to requirements

- The land does not fulfil a useful purpose in terms of its appearance, landscaping, recreational use or wildlife value
- The land does not host an element of semi-natural habitat or any other feature of value to wildlife to a greater extent than would be the case if it were planted as a garden
- The loss of publicly accessible green infrastructure would not set a precedent for other similar proposals which could cumulatively have an adverse effect on the locality or the environment
- The continued maintenance of the land for publicly accessible green infrastructure would be impractical or unduly onerous
- Publicly accessible green infrastructure lost will need to be replaced by equivalent or better following an assessment justifying this need.

5.143 Part of the land within the site has been maintained as public open space under planning permission AV/1036/85, comprising approximately 1,550 sqm which would be lost to provide the new roundabout at Wendover road and associated landscaping and ecological mitigation including new grassland, shrubs, trees and native hedgerow. The land lost to the proposed development is directly adjacent to Wendover Road (A413) on the western side, with residential development on the northern and eastern sides. It is currently an area of managed grassland, hedgerows and trees forming an amenity area to the south of Patrick Way. It is understood that the existing open space is well used for dog walkers and recreation and is potentially used by residents as a link to the local footpath network situated to the south of the open space. There are no other open space amenity facilities provided within this land.

5.144 The applicants are proposing to provide open space close to the open space to be lost, approximately 180m to the south west at its nearest point. It would be approximately 10,420 square metres in size. Existing access points through the tree belt north of the proposed open space will be maintained and where possible enhanced. Therefore, a minimal amount of hedgerow, will be required to be removed in order to facilitate access. Maintenance access will be from a proposed access point passing under the bridge and this will also be able to provide future pedestrian access in this location if and when required responding to potential future growth as per Policy D1 and allocation AGT1 of the emerging VALP. The access points are close to the Wendover Park/Stoke Grange estate which is immediately to the north.

5.145 The proposed open space currently comprises arable land with hedgerow and hedgerow trees and is not subject to any land use or environmental designations other than its agricultural use and it would be re-seeded to grassland in order to become a usable open space. In addition, the design of the replacement open space includes areas of wildflower meadow/species, rich grassland and shrubs therefore providing biodiversity benefits and an attractive area for recreational users including dog walkers. Along the inside edge of the southern boundary, the existing hedgerow is in poor condition, therefore it is proposed to provide a wide hedgerow/thicket which would create a new hedgerow to define the extent of the open space and reduce risk of visual impact of the dual carriageway to the south. In addition, the landscape design

incorporates the planting of individual trees to become features of the open space and noise barriers provide screening from potential road noise.

5.146 It is considered that the proposed development would provide a quality open space greater in size to that being lost and in close proximity to the existing open space and the housing development that it serves. Through the implementation of a number of landscape improvements a multifunctional, accessible, and connected open space with biodiversity benefits would be created. Whilst it is noted that users of the replacement open space south of Diane Walk may experience noise pollution from the dual carriageway, this would be mitigated through landscaping and the acoustic fencing along the SEALR itself such that the provision of this new open space would be acceptable as a replacement for that lost. This would accord with emerging VALP policy I1 and represent a limited benefit in the overall planning balance.

Crime prevention

5.147 Policy GP45 of the AVDLP requires that the design and layout of all planning proposals should incorporate measures to assist crime prevention and help reduce risks to personal safety.

5.148 The Crime Prevention Design Advisor has raised concerns about the culverts in that if they are of a sufficient height to allow access into or through, there would be significant concerns that these could attract crime and anti-social behaviour. As such they have advised that these should be appropriately secured to prevent access to an area that lacks surveillance, light and legitimate activity to safeguard them from crime and anti-social behaviour.

5.149 In response to this the applicants have advised that the ~80m long box culvert beneath the bridge embankment to the west of the railway has been over-sized from hydraulic drainage requirements in order to facilitate safer access and egress for inspection and maintenance personnel. Security galvanised steel screens with lockable gates are therefore proposed to discourage access by people, permit wildlife to use the culvert as a crossing between the land on either side of the SEALR and would be less likely to attract debris accumulation. Having regard to these matters it is considered that the development would not unacceptably attract antisocial behaviour and as such would be acceptable on these grounds. This afforded neutral weight in the planning balance.

Conclusions on healthy and safe communities

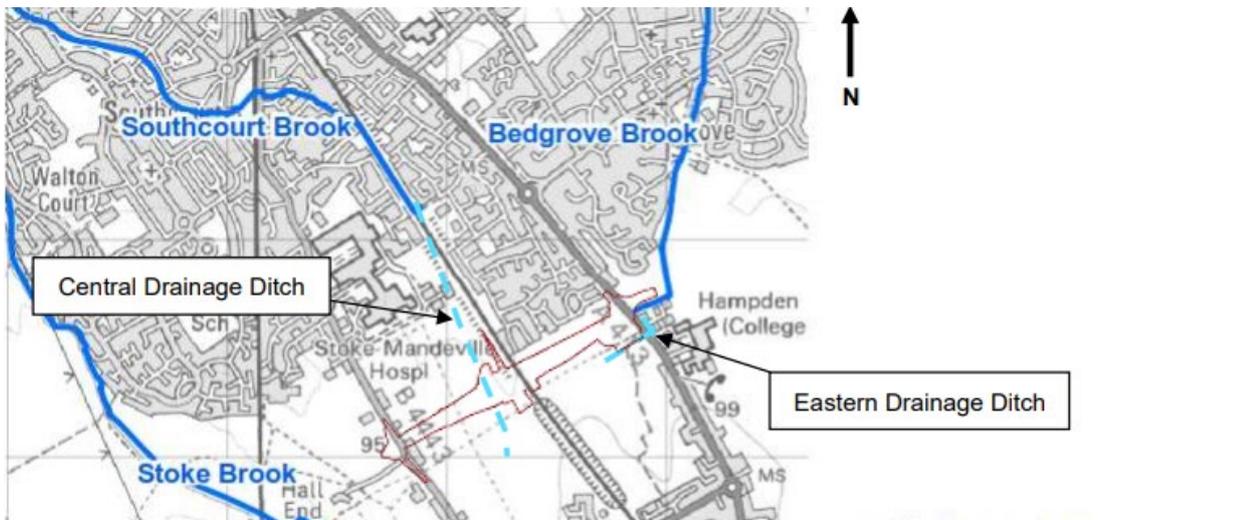
5.150 The ES concludes that there would not be a significant effect on these grounds. Having regard to the above matters it is considered that whilst there would be some loss of open space this would be mitigated through the provision of some replacement open space, larger in size than that lost, which would also be landscaped. Matters of crime prevention have been addressed. It is considered that the development would accord with policy GP45 of the AVDLP, emerging VALP policy I1 and with the NPPF in this regard (weighting has been given above).

Flooding

Emerging VALP policies I4 (Flooding) and I5 (water resources and wastewater infrastructure) (*both moderate weight*)

5.151 Paragraph 163 of the NPPF requires new development to consider the risk of flooding to the site and elsewhere. Developments need to demonstrate resilience to climate change and support the delivery of renewable and low carbon energy which is seen as central to the economic, social and environmental dimensions of sustainable development. This will not only involve considerations in terms of design and construction but also the locational factors which influence such factors. Development should be steered away from vulnerable areas such as those subject to flood risk whilst ensuring that it adequately and appropriately deals with any impacts arising.

5.152 The application site is located within Flood Zone 1 which is defined by the Environment Agency as being at low risk of flooding. A Flood Risk Assessment (FRA) has accompanied the application and the Council as the Local Lead Flood Authority has considered the information provided



Surface water flood risk

5.153 The Flood Map for Surface Water (FMfSW) shows that there are areas of the site at low, medium and high risk of surface water flooding associated with the Southcourt Brook, Bedgrove Brook and surface water overland flow routes within the wider catchment. The FRA provides an overview of surface water flood risk and fluvial flood risk from ordinary watercourses, with detailed modelling presented in the Surface Water Hydraulic Modelling Assessment and the Flood Risk Addendum. The reports identify that flood risk mitigation measures are required.

5.154 Within the western catchment, there is an overland surface water flow route which flows south to north on the site boundary of Lower Road as well as the Southcourt Brook which flows in the same direction on land near to the railway line. The proposed alignment of the SEALR is perpendicular to both the overland surface water flow route and the brook. At each location, the SEALR is on a raised embankment and therefore in the absence of any mitigation measures the proposals would alter the catchment characteristics and ultimately flood risk.

Overland Flow Route Mitigation

- 5.155 The Flood Risk Assessment Addendum proposes a culvert to enable conveyance of a surface water overland flow route under the proposed dual carriageway. The minimum size for the culvert is 1.2m x 1.2m for conveyance purposes; however the future asset owner, Transport for Buckinghamshire, has requested a 1.5m x 1.5m box culvert for ease of maintenance.
- 5.156 The Depth Difference Map shows that there is a reduction in flood risk to the land to the north of the road alignment, which forms part of AGT1 site allocation. A reduction in flood risk is also identified on the Stoke Mandeville Hospital site and Stoke Mandeville Stadium site. The Planning Practice Guidance (PPG) encourages developers and local authorities to seek opportunities to reduce the overall level of flood risk in the area and beyond. The LLFA views the reduction in flood risk in the area downstream of the SEALR positively.
- 5.157 The Flood Risk Assessment Addendum highlights that despite the addition of the culvert to allow for conveyance of flow, some ponding of surface water will occur upstream of the culvert for the 1 in 100 year plus climate change event as shown on Depth Difference Map. The anticipated depth is up to 0.5m reducing to below 0.1m within three hours. The Surface Water Hydraulic Modelling Assessment sets out that the current ditch in this area is represented solely by LiDAR data and therefore, the flow capacity is likely to be underestimated. Notwithstanding any data limitations, the proposals do indicate a change in flood risk at this location. As a result, the applicant has liaised with the adjacent landowner to seek an in-principle acceptance of the localised increase in flood risk. This in-principle acceptance has been obtained and therefore, the steps outlined in the Flood Risk Assessment Addendum and Surface Water Hydraulic Modelling Assessment which seek to address the localised area of increased flood risk at detailed design include:
- Landscaping of land on the approach to the culvert to improve collection of flow by the culvert to minimise this ponding depth.
 - Additional landscaping could be undertaken to reduce the maximum water depth by storing this flood water over a wider area at the toe of the embankment.
 - More detailed modelling of the ditch on the downstream side of the embankment could show that water would flow away from the outlet of the culvert which would prevent upstream flooding
 - Increase capacity in the ditch to minimise the backwater effect through the culvert

Southcourt Brook Mitigation

- 5.158 The proposals will cross the Southcourt Brook and to allow for a continuation in flow, the FRA proposes the use of a culvert, 1.5m x 1.8m for maintenance requirements. The Surface Water Hydraulic Modelling Assessment identifies that there is a predicted 0.05m increase in peak flood depth on the upstream side of the culvert.

This is proposed to be contained within the redline boundary, however the Depth Difference Map shows an increase outside of this area. As with the above change in flood risk, agreement has been reached with the relevant landowner. The LLFA acknowledges the in-principle agreement from the adjacent landowner and in combination with the wider benefits of the proposals in terms of flood risk reduction in the locality; the LLFA is in agreement that further work to seek to reduce the flood risk in the upstream area of the culvert is a reasonable approach.

Bedgrove Brook Mitigation

5.159 Turning to the eastern catchment, there is an existing flood risk associated with the Bedgrove Brook and the associated backing up of flows from the existing culvert under the A413 Wendover Road. In order to reduce flood risk to the SEALR junction and A413 Wendover Road, the Flood Risk Addendum proposes a flood storage area (FSA) adjacent to Bedgrove. The proposed flood storage will have an anticipated depth of 1.2m and will provide up to 7,000m³ of storage. The provision of the flood storage area will result in an anticipated reduction in peak flow in the A413 culvert from 2.53m³/s to 2.4m³/s.

5.160 The Depth Difference Map indicates that the proposals will provide a reduction in flood risk areas outside of the red line boundary, namely, Stoke Grange housing estate and land to the south of the FSA which falls within the AGT1 site allocation. In these areas, the SEALR provides a positive contribution to reducing flood risk elsewhere. However, there is an area to the south of the proposed roundabout on the A413 that shows an increase in flood risk as shown on the Depth Difference Map. As with the above, the applicant has liaised with the adjacent landowner to seek an in-principle acceptance of the localised increase in flood risk, and in-principle acceptance from the relevant landowner has been obtained.

Groundwater flood risk

5.161 The Infiltration SuDS Map provided by the British Geological Survey 2016, indicates that the water table is anticipated to be within 5m of the ground surface in the area around Southcourt Brook and Bedgrove Brook. The concerns of high groundwater has been supported by the results of the ground investigations which identified groundwater at varying depths across the site; with a trial pit to the east of Wendover Road recording the highest groundwater level at a depth of 0.2m below ground level. The Surface Water Drainage Strategy confirms that the surface water drainage system will be lined to prevent groundwater ingress.

Surface water drainage

5.162 A Surface Water Drainage Strategy has been provided by the applicant to support the above proposals. The surface water drainage scheme is split into two catchments, western and eastern both draining via gravity to strategic attenuation basins prior to discharging to nearby watercourses, Southcourt Brook and Bedgrove Brook at a rate of 2l/s/ha up to the 1 in 100 year storm event plus an allowance for

climate change. Compliance with the drainage hierarchy has been demonstrated, ground investigations found that the infiltration as a means of surface water disposal was not viable due to low permeability rates and observed high groundwater levels. Therefore discharging to nearby watercourses is the next most practicable solution.

- 5.163 The restricted discharge rate of 2l/s/ha for each of the catchments provides betterment on the existing discharge rate from the greenfield site. As mentioned, prior to discharging surface water runoff will be attenuated in basins, these will have a side slope of 1:3 and a vegetated shelf which is set to the 1 in 30 year water level. The basins will also include a 300mm freeboard for exceedance events.
- 5.164 Calculations which demonstrate the runoff volumes for the 1 in 100 year plus 40% climate change allowance have been provided as previously requested. The calculations demonstrate that there will not be an increase in runoff volume at this return period and therefore complies with Defra guidance.
- 5.165 The drainage is designed to accommodate the 1 in 100 year plus 40% allowance for climate change event. The Surface Water Drainage Strategy identifies that for the 1 in 100 year plus 40% allowance for climate change event there is flooding of the drainage system, this is isolated to the carriageway. The Surface Water Drainage Strategy suggests that 'this caused by throttling of upstream pipes and is considered to remain within the carriageway prior to re-entering the proposed drainage system', it is advised that at detailed design this is investigated further and the hazard associated with these flood events is investigated so as to understand and provide mitigation to highway users.
- 5.166 As previously discussed, high groundwater levels were observed on site and therefore it is proposed to line the basins to ensure that storage capacity is not reduced in the event of a period of high groundwater. The associated flotation calculations will need to be revised once the required storage volumes are confirmed in detailed design. An indicative Exceedance Plan for overland flow routing has been provided in the event that a storm event occurs that is greater than the 1 in 100 year plus an allowance for climate change or there is a system failure.

Ditch Diversions

- 5.167 As part of the surface water drainage two ditch diversions are proposed. The ditch parallel to the proposed SEALR will be diverted north and around the proposed surface water pond before being discharged into the Southcourt Brook, 60m north of the existing discharge point. The Ditch Diversion Plan Arrangement appears to show the Overland Flow Culvert discharging into the existing ditch north of the proposed culvert and confirmation of this formal connection to the ditch network is required.
- 5.168 The second ditch diversion is proposed to the ditch which runs along the A413 to the east of the proposed SEALR. Due to the proposed roundabout it has been proposed to divert the ditch west and into Culvert C which will also take flows from the new ditch to the south SEALR. At detailed design the impacts of the proposed ditch diversions should be investigated to demonstrate that they will not cause an increase in flood risk.

- 5.169 In summary the LLFA has carefully considered the proposed development and Officers consider that having regard to the FRA and the drainage scheme proposed that the development would be acceptable. This would be subject to conditions to ensure that development does not begin until a surface water mitigation strategy and accompanying surface water drainage strategy based on the principles set out in the FRA and also a maintenance scheme for these have been submitted to and approved by the Council and these conditions are considered to be required to make the scheme acceptable.
- 5.170 The ES concludes that there would not be a significant effect on flooding. Having regard to the above matters it is considered that the development would accord with emerging policies I4 and I5 of the VALP and with the NPPF and is accorded neutral weight in the planning balance.

Ecology

WTNP Policy H2 - (Development Design in the Neighbourhood Area) and
Emerging VALP policy NE1 (Biodiversity and geodiversity) (*moderate weight*)

- 5.171 Paragraph 170 of the NPPF requires new development to minimise impacts on biodiversity and provide net gains in biodiversity. WTNP Policy H2 states amongst other things that proposals for development in the neighbourhood area will be supported provided that it provides a biodiversity net gain for the parish. Policy E3 of the WTNP states that new development will be expected to conserve and enhance biodiversity and wildlife to include providing net gains to biodiversity; the safeguarding or protection of designated sites, protected species, priority species and habitats, ancient or species rich hedgerows, grasslands and woodlands; where appropriate development will contribute to the green infrastructure connecting the green spaces within the parish and to wider landscape; the use and adoption of sustainable drainage facilities and a restrictive use of storage lagoons or similar retentive systems discharging to surface or ground water receptors; and development proposals that will cause the loss of or damage to trees, woodland or hedgerows (including hedgerows of importance) that contribute positively to the character and amenity of the area must provide for appropriate replacement planting together with a method statement for the ongoing care and maintenance of that planting; all suitable buildings bordering open spaces will be required to incorporate integrated bat and swift boxes; lighting within and around development is expected to respect the ecological functionality of wildlife movement corridors and landscaping schemes will be expected to maximise opportunities for wildlife, including the planting of trees to maximise diversity of wildlife species. Policy NE1 of the emerging VALP requires new development to deliver a net gain in biodiversity.
- 5.172 Ecology survey work has been carried out and the additional submissions include updated reports on bats, water vole, otter, reptiles, great crested newt, badger, birds and the Council's ecologists have no further comments or concerns relating to the assessments made for the other species/species groups and welcome the updates to each of the individual reports.

- 5.173 The site predominantly comprises arable habitat with species-poor intact hedgerows typically dominated by hawthorn primarily forming field boundaries. Based on the criteria, none of the hedgerows qualify as important under The Hedgerows Regulations 1997. Improved grassland and species poor semi-improved grassland habitat was recorded to the north and north-east of the site in publicly accessible areas. Mature and semi mature trees were recorded intermittently across the site along with dense bramble, with some smaller areas of broadleaved plantation and tall ruderal habitat also featuring. Seasonally wet ditches were recorded intermittently across the site. A total of 24 black poplar trees were recorded within or nearby the site and will not be impacted as a result of the proposed development. No rare or notable plant species were recorded during the botanical survey. These habitats comprise common and widespread species which are not of any significant conservation value other than adding to the mosaic of habitats for wildlife within the site and the wider area.
- 5.174 In terms of protected and notable species there are records of six bat species within 5km of the Site, and records of great crested newt, badger, 35 species of bird including barn owl and 24 protected and/or notable species of invertebrate within 2km of the Site in the last 10 years.
- 5.175 With regards to bat roosts, in 2017, two hybrid black poplar trees were identified as having moderate suitability to support roosting bats; two trees (T44 and T45) within the site were assessed as having high suitability for roosting bats and 16 trees within the site were assessed as having low suitability for roosting bats, although no bats were recorded roosting suggesting likely absence of roosting bats. Bats were recorded commuting and foraging along the hedgerows and field margins throughout the site; with levels of bat activity being higher in the east of the site.
- 5.176 In respect of Great Crested Newts (GCN) wet ditches across the site and Bedgrove Brook to the north east of the site were assessed to be unsuitable for this species. Whilst two ponds were identified within the site during review of aerial mapping, these were found to be dry/no longer present. One waterbody (Pond 1) was identified within 500m of the site, approximately 245m south-west of the Site (at Hall End Farm) and surveys identified the presence of a small population. The assessment concludes that a European Protected Species License is not required as negative impacts on GCN are unlikely given the distance of the site from the pond and quality of habitat. The assessment and rationale for this conclusion are supported. It is considered unlikely that the scheme would result in significant adverse impacts on the favourable conservation status of GCN. It is recommended that a non-licensed method statement (NLMS) will minimise potential impacts on any individual great crested newts and that this should be secured through a suitably worded planning condition, should permission be granted and Officers consider this to be an appropriate recommendation.
- 5.177 No badger setts were recorded within the survey area; however several badger field signs, including sightings of badger, were recorded within the site and a used, two-hole outlier sett was recorded adjacent to the site.
- 5.178 A range of common wintering birds were recorded across the site. No significant gathering of roosting or foraging birds were recorded, or any species or particular conservation significance. A range of common breeding birds were also recorded across the site during the 2017 breeding season and the 2020 breeding season (with a

breeding assemblage of 27 species recorded in 2020). No significant populations or species of particular value were recorded. Several notable species were recorded breeding, including Species of Principal Importance under Section 41 of the NERC Act 2006, and BOCC Red and Amber listed species. No species afforded special protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were recorded breeding within or in close proximity to the site, although red kite (*Milvus milvus*) was considered likely to be breeding near to the site (at least 500m from the site boundary), and therefore having a home range overlapping with the site. The Site is only considered to be subject to occasional use by foraging and commuting barn owls, although arable fields and rough grassland remain suitable for use by foraging and commuting barn owls.

- 5.179 No signs of water vole or otter or reptiles were recorded during the surveys in 2017 and 2020. The Council's ecologists have noted that the Landscape and Environment Management Plan (LEMP) lacks reference to ecological mitigation and compensation and this will need to be secured to address the matters set out in the Ecology chapter of the ES. The scheme has been designed to mitigate and minimise and compensate for ecological impacts on bats, barn owl and badgers in particular but there is no reference in the LEMP to barn owl or badger and limited mention of bats and birds (reference to habitat boxes only, not planting/landscaping). The assessment of significance of likely residual ecological impacts provided in the Ecology Chapter is based on the design of the scheme, with strong reference to landscaping. It follows that the importance of the landscaping, and the appropriate receptor-specific measures, should be included in the LEMP.
- 5.180 Similarly the LEMP does not set out the design, function and actions for waterbodies and associated plants as has been described for other habitat types and there is also no detail on what species will be planted. As such the Council's Ecologists recommend that the LEMP is updated to include wetland species planting and management. The ES chapter refers to the proposed waterbodies as being suitable for great crested newt and therefore it is recommended these features are designed and planted appropriately. Also the Landscape and Ecology Maintenance Schedule should be updated to include inspections of the bat and bird boxes. The outline Environmental Management Plan submitted sets out measures which are considered appropriate.
- 5.181 In terms of biodiversity net gain, a revised BNG report has been submitted and reviewed and it is notable that the proposed scheme has the potential to deliver an overall net gain of approximately 14.07% in habitat units and 12.51% in hedgerow units (this is also welcomed by the Chilterns Conservation Board). The delivery of biodiversity net gain will be dependent on the implementation of the LEMP and the BNG calculation is dependent on the proposed landscape scheme and therefore the BNG assessment will need to be revised in line with any changes in the scheme.
- 5.182 Based on the assessments provided, the ecological features with the potential to be impacted by the development (either from construction impacts or operational impacts), either alone and/or in combination with nearby developments have been identified. These include potential impacts on habitats (notably hedgerows), roosting and foraging/commuting bats, great crested newt, badger and birds (including barn owl). Overall the development has had regard to the need to address ecology and exceeds the emerging VALP NE1 policy to achieve biodiversity net gain (which states percentage of net gain to meet any nationally-set minimum standard and or as detailed in an SPD). This is a benefit that would meet the draft British Standard for biodiversity

and emerging Bill. A number of design measures to minimise effects on ecology have been set out in the ES and these include implementation of good practice construction methods within a CEMP (including adoption of precautionary working methods for works within 500m of a pond found to contain great crested newt, precautionary felling methods for trees suitable for roosting bats, and sensitive clearance of suitable nesting bird habitat), retaining existing habitat where possible, sensitive lighting design, and habitat creation and enhancement (to include habitat connectivity). Taking into consideration the CEMP, the required protected species monitoring and non-licensed method statement for GCN which are to be addressed by conditions it is considered that the impact on ecology is acceptable.

5.183 The ES concludes that there would not be a significant effect on ecology. It would deliver a net gain which would be a benefit. Having regard to the above matters, it is considered that the development would accord with emerging policy NE1 of the VALP and with the NPPF and that this should be afforded limited positive weight in the planning balance.

Historic environment

AVDLP policy GP59 (Archaeology)

Emerging VALP policy BE1 (Heritage Assets) (*moderate weight*)

5.184 Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty on local authorities to pay special regard to the desirability of preserving the setting of a listed building.

5.185 There are no listed buildings within the site but there are some nearby, all to the south and south-west of the site. Lone Ash is a grade II listed building located on the west side of the B4443. It is a 17th century cottage with later alterations. Stoke Cottage is a grade II listed building located on the west side of the B4443. It is a small house of 17th century date which has been altered and heavily restored in the 20th century. Hall End Farmhouse is a grade II listed building located to the west of the B4443. It is a 17th century house which has been subject to later alterations. Magpie Cottage is a grade II listed building located to the east of the B4443. It is a 17th century cottage which has been altered and extended, followed by restoration in the 20th century.

5.186 During the construction of the SEALR the road embankment and bridge over the railway line may be visible in views from Magpie Cottage and potentially the other listed buildings but these views would be across the fields and across the B4333. It is accepted that the proposed link road could have the visual effect of bringing built development and the urban edge of Aylesbury appear closer to the listed buildings than at present. However these long distance views and wider fields are considered to make a very limited contribution to the importance of the rural setting of the listed building. As such it is not considered that the development would have an impact on the overall heritage significance of the listed buildings or their settings and preserve this heritage asset and its setting. During the operation of the SEALR it is not considered that there would be any further impacts on these heritage assets.

5.187 In respect of archaeology, the Historic Environment Records show that to the south of Stoke Grange, Roman ditches, pits and gullies with pottery and animal bones

found in trial trenching have been recorded. To the South East of Red House Farm a late Bronze Age curved ditch and Roman ditches, pits, gullies and inhumation associated with pottery and animal bone has been recorded in trial trenching. In a field north of Stoke Mandeville a scatter of late prehistoric, Roman, medieval and post-medieval artefacts found in field-walking survey and in a field West of Hampden Hall a scatter of artefacts including a prehistoric flint flake, medieval and post-medieval pottery and finds have been recorded in field-walking survey.

5.188 The cultural heritage documents included with the application recognise that an archaeological excavation will be required. The Council's Archaeologist considers that the development is likely to harm a heritage asset's significance and therefore recommends a condition to require the developer to secure appropriate investigation, recording, publication and archiving of the results and it is considered that this condition would ensure that due regard is had to the historic environment in respect of archaeology.

5.189 The ES concludes that for Bronze Age and Roman remains the development would have a significant effect, but that for other archaeological matters there would not be a significant effect. In respect of the setting of Magpie Cottage it concludes that there would not be a significant effect. Having regard to the above matters, it is considered that the settings of the listed buildings would be preserved and therefore the development would accord with Section 66 of the Act. In addition the development would accord with policy BE1 of the emerging VALP in respect of heritage assets (including setting of listed buildings and archaeology) and with the NPPF and as such this should be afforded neutral weight in the planning balance.

6.0 Other matters

Prematurity:

6.1 Government policy emphasises the importance of the plan led process, as this is the key way in which local communities can shape their surroundings and set out a shared vision for their area. Paragraph 49 states in the context of the Framework – and in particular the presumption in favour of sustainable development – arguments that an application is premature are unlikely to justify a refusal of planning permission other than in the limited circumstances where both:

a) the development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by

predetermining decisions about the scale, location or phasing of new development that are central to an emerging plan; and

b) the emerging plan is at an advanced stage but is not yet formally part of the development plan for the area.

- 6.2 Refusal of planning permission on grounds of prematurity will seldom be justified where a draft plan has yet to be submitted for examination; or – in the case of a neighbourhood plan – before the end of the local planning authority publicity period on the draft plan. Where planning permission is refused on grounds of prematurity, the local planning authority will need to indicate clearly how granting permission for the development concerned would prejudice the outcome of the plan-making process (NPPF paragraph 50).
- 6.3 The HFAG consider that the level of objections, Inspector’s interim comments of August 2018, further main modifications and publicity, and Inspector’s document outlining the hearing sessions mean that there are significant unresolved issues which prevent any weight to be given to VALP.
- 6.4 The emerging VALP is at an advanced stage in the process as it has reached main modification stage. The Council prepared preliminary main modifications to remedy the soundness issues identified in the Inspector's Interim Findings (29th August 2018). Subsequently, the Council prepared further main modifications which are subject to consultation expiring on 9 February 2021. The Council would not be seeking to give weight to the plan as a whole at this stage, however the Council can give weight to the VALP policies in certain circumstances, as set out in the evaluation above.
- 6.5 In terms of the transport strategy, the Inspector, in his discussion document D8 dated 16 December 2020 says, “The new transport evidence submitted since the earlier hearing sessions means that I would benefit from a further hearing session.”
- 6.6 In response to the Inspectors interim findings, the Council commissioned a further iteration of the Countywide Local Plan Modelling (Phase 4) which assesses revisions to development numbers and a revised set of mitigation options in line with updated VALP proposals, dated May 2020 as well as a Buckinghamshire Council Countywide Strategic Transport Model (CSTM) Supporting Statement (October 2020). This provides the strategic framework for VALP and highway officers advise that Countywide Strategic Transport Model is fit for the purpose of plan making and that the proposed transport mitigation is appropriate for the proposed level of development in the VALP.
- 6.7 The CSTM clearly provides sufficient basis for the high level strategic assessment of future year development scenarios at a Buckinghamshire-wide level, something that a more detailed geographically specific model, such as the Aylesbury Transport Model (ATM) could not do. A high level strategic assessment is essential when considering the implications of a VALP area wide assessment of housing allocation implications. The CSTM model can be used to identify future transport issues, but the exact scale of the issues have not been quantified on the basis of the CSTM model data, nor should it be.

- 6.8 The finer grain traffic impacts have been assessed through the detailed planning application process, using the detailed and geographically specific ATM. This is in accordance with NPPG, to determine and mitigate the localised impacts of a specific development on the local highway network at the time of a planning application. The ATM is the correct tool for assessing a development proposal within the area it covers and is validated for.
- 6.9 The highways officers advise that Countywide Strategic Transport Model is fit for the purpose of plan making, and that the ATM confirms the proposed transport mitigation is appropriate for the proposed level of development and consideration of this planning application.
- 6.10 The Aylesbury Transport Strategy adopted by the Council in 2017 sets out a strategy for accommodating the growth planned for Aylesbury and supports the site allocations proposed in the Vale of Aylesbury Local Plan. A key part of the strategy is the implementation of the link roads.
- 6.11 In relation to the representations made on the proposed allocation for AGT1, the Inspector in his discussion document D8 says *“Although the Council gives a thorough response to representations I would benefit from a brief hearing session to discuss the matters raised by QUOD representing the D-AGT1 landowners and the Council’s responses to those matters, particularly in relation to (i) the SEALR and its limitations and (ii) the sequencing of delivery, matters also raised by Geoff Gardner on behalf of Arnold White Estates in relation to site D-AGT1 and by Sarah Hamilton- Foyne of Pegasus Planning Group on behalf of Willis Dawson Holdings in relation to D-AGT2.”*
- 6.12 These matters relate to the quantum of development of at least 1,000 dwellings, the need for a site specific Supplementary Planning Document, phasing of the housing delivery and the need for the school and retail provision. The delivery of these are not directly related to this current application.
- 6.13 There were also objections raised in VALP representations regarding lack of provision for direct access from the SEALR to serve the land north and south. This is now being accommodated through the design of the bridge to enable vehicular access underneath to link both the north and south areas of the AGT1 allocation and facilitate access to Lower Road and Wendover Road. The main consideration of the Council is the need to preserve and protect the proposed new link roads around Aylesbury and to ensure that they can perform their main strategic purpose with maximum efficiency. It is for this reason that the Council, not only through Local Plan site allocations, but also through dealing with planning applications for strategic development sites, has been seeking to control the number of accesses created to the link roads. The addition of junctions to serve development which is capable of being accessed from a lower category of road, consistent with the comprehensive master-planning requirements of the site, will unnecessarily detract from its main strategic purpose. The SEALR itself is just over 1km in length with a major roundabout junction

at either end, therefore the Council feel there is sufficient access already at this location.

- 6.14 With regards to the concerns raised over emerging VALP policy D-AGT1 criterion c) regarding the responsibility for delivery of the dual carriageway, SEALR is to be delivered by the Council as Highway Authority and not by the development itself. As such, it is proposed in the Further Main Modifications that the wording of policy D-AGT1 criterion c) is changed from 'prioritising the delivery of' to 'safeguarding the land required for the....' to clarify this. This is set out in the table of further modifications (ED243).
- 6.15 In terms of the requirements for the SEALR, the development of this link road is a strategic highway infrastructure feature that is critical to the delivery of the Aylesbury Garden Town. The Council has committed in VALP to the delivery of significant growth (target of 30,100 homes) with the focus at Aylesbury to grow by 16,207 new homes, and development at Buckingham, Winslow, Wendover and Haddenham supported by growth at other larger, medium and smaller villages. This development is part of that overall infrastructure strategy critical to that spatial strategy in that if it is refused, it could impact the delivery of other major sites around Aylesbury Garden Town and has wider implications to meet the VALP requirements, and the council's ability to its 5 year housing land supply.
- 6.16 It is not sufficient to refuse permission for reasons based on the level of objections on the emerging VALP or that a decision on this application should be delayed until the Inspector's report on the VALP has been received. In any reason for refusal, including prematurity, in the determination of an application, the Council would need to show that the proposal should be refused permission on its own merits (or demerits) and identify clearly the harm that would arise from this in planning terms, as well as how this application would prejudice the outcome of the plan making process.
- 6.17 In this instance the proposal would be consistent with the emerging VALP policies, it is not in conflict with those emerging policies, it would not conflict with the local transport scheme T3 as an identified protected and supported scheme in table 16 or the proposed allocation at D-AGT1. It is therefore considered that it would not undermine the scale, location and phasing of new development in Aylesbury Town nor prejudice the delivery of the AGT policies and the local plan making process or prejudice the allocation at AGT1 and is not premature.

7.0 *Weighing and balancing of issues / Overall Assessment*

- 7.1 This section brings together the assessment that has so far been set out in order to weigh and balance relevant planning considerations in order to reach a conclusion on the application.
- 7.2 In determining the planning application, section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that proposals be determined in accordance with the

development plan unless material considerations indicate otherwise. In addition, Section 143 of the Localism Act amends Section 70 of the Town and Country Planning Act relating to the determination of planning applications and states that in dealing with planning applications, the authority shall have regard to:

- Provision of the development plan insofar as they are material,
- Any local finance considerations, so far as they are material to the application (such as CIL if applicable , and,
- Any other material considerations

- 7.3 Paragraph 11 of the NPPF sets out the presumption in favour of sustainable development which for decision taking means approving development proposals that accord with an up-to-date development plan without delay; or where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless the application of policies in the NPPF that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.
- 7.4 There are relevant development plan policies that apply to this application. Those policies which are most important for determining this application are AY1, AY2, AY3 and GP35. As set out above AVDLP policies AY1-3 are out of date. Policy G35 is in full compliance with the NPPF. It is considered that given 3 out of these 4 policies are out of date taken as a whole the development should be determined in relation to paragraph 11(d) of the NPPF.
- 7.5 As explained earlier in this report, special regard has been given to the desirability of preserving the setting of listed buildings as required in the statutory tests contained in Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990. With regard to the listed buildings and their settings it is considered that the impact of the built form itself, would preserve and not harm the setting of the listed buildings. There is therefore no clear reason to refuse permission on this basis.
- 7.6 The scheme has also been considered acceptable with mitigation outlined above in terms of its impact to achieving well-designed places, promoting sustainable transport (cycling and footpath links), meeting the challenge of climate change and flooding, and conserving and enhancing the natural environment, however these do not represent benefits of the scheme but rather demonstrate an absence of harm to which weight should be attributed neutrally. There is also the recognised potential harm to bats which can be appropriately mitigated to address the harm as outlined above and thus neutral weight is given to this.
- 7.7 There would be harm to the character of the landscape and on visual impacts which having regard to mitigation would be a significant negative impact and the

development would result in loss of BMV agricultural land which would be of very limited negative impact.

- 7.8 In respect of residential amenities, having regard to the residual impact of noise through the operation of the SEALR on a number of properties there would be a significant adverse effect.
- 7.9 There would be significant benefits to the delivery of a key section of strategic link road both in terms of the existing highway network and significant benefits in delivering the strategic growth at Aylesbury Garden Town. In addition there would be considerable benefits from investment in construction and the local economy. There would be limited benefits in terms of air quality in the town and to residential amenities and limited benefits in providing biodiversity net gain.
- 7.10 In the terms of applying paragraph 11(d) of the Framework it is concluded that there are no policies in the Framework that protect areas or assets of particular importance that provide a clear reason for refusing the development proposed, and the adverse effects of the proposal would not significantly and demonstrably outweigh the benefits.
- 7.11 Local Planning Authorities, when making decisions of a strategic nature, must have due regard, through the Equalities Act, to reducing the inequalities which may result from socio-economic disadvantage. In this instance, it is not considered that this proposal would disadvantage any sector of society to a harmful extent.

8.0 Working with the applicant / agent

- 8.1 In accordance with paragraph 38 of the NPPF (2019) the Council approach decision-taking in a positive and creative way taking a proactive approach to development proposals focused on solutions and work proactively with applicants to secure developments.
- 8.2 The Council work with the applicants/agents in a positive and proactive manner by offering a pre-application advice service, and as appropriate updating applications/agents of any issues that may arise in the processing of their application.
- 8.3 In this instance :
- The agent and applicant were updated of issues and consultee concerns and provided opportunity to submit further information to address these
 - The application was considered by the Planning Committee where the applicant/agent had the opportunity to speak to the committee and promote the application.

9.0 Recommendation

- 9.1 It is therefore recommended that permission be deferred and delegated to the Director of Planning and Environment to **GRANT** permission subject to conditions as

considered appropriate by Officers and completion of a memorandum of understanding regarding the delivery of the transport mitigation.

Appendix A: Consultation Responses and Representations

Appendix B: Highway Officer consultation responses

Appendix C: Plans

Appendix D: Schedule of submitted documents

Appendix E: EIA summary

APPENDIX A: Consultation Responses and Representations

Comments from Councillor:

Cllr Roger King – *'In principle I agree with a link road around the southern part of Aylesbury but I think this application is premature. It is not yet known whether the Hampden Fields development together with its spine road will be completed. This link road between the A413 & B4443 road on its own is an isolated project and will do little to alleviate the congestion on either the A413 Wendover Road or B4443 Lower Road. At the end of the day, going into Aylesbury either way, will end up at the gyratory system. This link road should be part of a wider project. Currently there is no plans or approval for the link between the SEALR and Oxford Road and the link from Wendover Road to the A41 is subject to an appeal.*

With regard to the design, I object to the siting of the A413 Wendover Road roundabout. It includes building on part of open space protected by covenant when Stoke Grange was built. This grass and woodland area was meant to be a buffer against the proposed road. The loss of trees is particularly worrying especially as Aylesbury has been designated a so called 'Garden Town'. The residents in Elizabeth Close and Wendover Road will suffer a loss of amenity and ensuing traffic noise. The roundabout should be sited further towards Wendover and incorporate the roundabout at Hampden Hall.'

Parish/Town Council Comments

Stoke Mandeville Parish Council (June 2020): Following a Special Parish Council meeting held on the 4th June 2020, Stoke Mandeville PC wishes to object to the SEALR planning application. We would like it to be noted that the proposed road lies wholly within Stoke Mandeville parish and we would therefore wish our objection to be given due weight. Our objections are in three parts:

1. We object in principle to the need for the road in its present form
2. We feel the SEALR design is not compliant with the emerging Stoke Mandeville Neighbourhood Plan,
3. We have other detailed objections to its design.

Objections in Principle 1. The application is premature: the SEALR forms part of a wider Aylesbury transport strategy and makes no sense as an isolated project. A single planning application for the entire southern Aylesbury link road should be brought forward when the details for the whole route are established, including the projected re-diversion of the A4010 by HS2 Ltd. 2. The application is for a project which is currently undeliverable: there is no approval in place for the link between the SEALR and Oxford Road and the link from Wendover Road to the A41 is subject to an appeal. An application should be brought forward only when the link road of which the SEALR is a part can be delivered. 3. The application is strategically misguided. Firstly, the aspiration to deliver a north-south bypass for Aylesbury, between the A41 north and south of the town, is already being delivered to the east of Aylesbury by roads which are either built or for which planning permission has already been granted. Similarly, the aspiration to deliver an east-west bypass for Aylesbury, between the Oxford Road and Leighton Buzzard/Milton Keynes is already being delivered to the north of Aylesbury by roads which are either built or for which planning permission has already been granted. In the light of these deliverable alternatives, the strategic need for an east-west link road to the south of Aylesbury needs to be reassessed in accordance with NPPF principles.

Objections based on Departures from Neighbourhood Plan 4. Contrary to the NPPF, the SEALR's current design conflicts with the developing policies of the Stoke Mandeville Neighbourhood Plan, which carries significant weight as part of the development plan. Specifically:

- a. The design of the SEALR does not positively contribute to the Neighbourhood Plan goal of building up a clearer structure and cohesion to the Parish. On the contrary, by creating a significant physical and visual barrier between the northern and southern settlements of the Parish, it reduces the clarity of the structure and diminishes the cohesion of the Parish
- b. The design of the SEALR does not meet garden town planning principles and, in particular, does not positively contribute to the Neighbourhood Plan's goal of creating a beautiful green natural environment for local people. On the contrary, as a large urban road structure in an elevated position, the SEALR is a visual eyesore and environmental blight, thus actively preventing the maintenance and enhancement of the Parish as a beautiful green natural environment for local people.
- c. The design of the SEALR does not actively contribute to the NP goal of creating good transport routes, both within the Parish and connecting it to other areas. While the SEALR offers two access points within the Parish to the strategic road network, thus potentially improving Parish connections to areas outside the Parish, the SEALR's design actively reduces connections within the Parish, and particularly north-south connections, by forming a barrier between the northern and southern settlements. It also prevents good connections being made between the 4 existing parish settlements and the two new settlements proposed by the VALP to be developed within the Parish.
- d. The design of the SEALR does not match the SM Corridor NDA (Neighbourhood Development Area) goal that the area should provide 'a new focus and hub for the Parish as a whole by offering a green setting for shared Parish amenities such as retail, health, education, employment and recreation, sharing these uses with the SEALR link road and housing development'. The SEALR's design should facilitate and support this land use policy but, as a crude elevated dual carriageway with only terminal junctions, it manifestly does not do so.
- e. The design of the SEALR does not match the SM Corridor NDA goal that this area should 'offer open space and a green landscape which provides separation, avoids coalescence and protects the setting of the northern wards and the village'. Rather, the SEALR encroaches upon and, as an elevated highway, blights the setting of Stoke Grange and Stoke Leys.
- f. The design of the SEALR does not match the SM Corridor NDA goal that this area should provide 'critical north-south and east-west connectivity for the Parish and connect the Parish to its adjoining Garden Town settlements and existing villages'. The SEALR provides east west connectivity only as part of a closed-loop strategic link road; it does nothing to increase intra-Parish east-west connectivity. Worse, the SEALR is a positive barrier to north-south connectivity between the northern settlements of Stoke Grange and Stoke Leys and the projected 6th settlement near Hawkslade, and the southern settlements, i.e. the projected 5th settlement within the Corridor NDA and the village settlement.
- g. The design of the SEALR conflicts with the NPPF and Neighbourhood Plan in that it fails to take into account the transport needs of the 3000+ houses adjacent and near its route envisaged by the VALP and actually projected to be built under outstanding planning applications.

Objections Based on Detailed Design Considerations 5. The PC objects to the proposed design of the SEALR on the following grounds:

- a. There are insufficient mitigation factors proposed for noise, vibration, and light and atmospheric pollution. As a major dual carriageway link, the SEALR needs extensive mitigation to protect the interests of neighbouring residents and the parish as a whole, which are not shown in the proposed design. Neither is there data showing the extent of these problems.
- b. The proposed Wendover Road roundabout involves the use of open grassland and wooded areas in Stoke Grange which are doubly protected, both by covenant and by designation
- c. There is no information about how construction traffic and plant movement is to be managed, especially given the congested nature of Lower Road and Wendover Road and the extensive construction which is planned for adjoining sites.
- d. There is insufficient detail as to how surface water drainage from this major highway is to be managed and how flooding of the adjacent land and houses, especially Stoke Grange, is to be avoided. The two small balancing ponds do not seem adequate to the task of containing run-off water in the event of severe weather.

Stoke Mandeville Parish Council (December 2020) Proposed Grounds for Objecting to the SEALR:

1. The application is premature: the SEALR forms part of a wider Aylesbury transport strategy and makes no sense as an isolated project. A single planning application for the entire southern Aylesbury link road should be brought forward when the details for the whole route are established, including the projected re-diversion of the A4010 by HS2 Ltd.
2. The application is for a project which is currently undeliverable: there is no approval in place for the link between the SEALR and Oxford Road and the link from Wendover Road to the A41 is subject to an appeal. An application should be brought forward only when the link road of which the SEALR is a part can be delivered.
3. The application is strategically misguided. Firstly, the aspiration to deliver a north-south bypass for Aylesbury, between the A41 north and south of the town, is already being delivered to the east of Aylesbury by roads which are either built or for which planning permission has already been granted. Similarly, the aspiration to deliver an east-west bypass for Aylesbury, between the Oxford Road and Leighton Buzzard/Milton Keynes is already being delivered to the north of Aylesbury by roads which are either built or for which planning permission has already been granted. In the light of these deliverable alternatives, the strategic need for an east-west link road to the south of Aylesbury needs to be reassessed in accordance with NPPF principles.
4. Contrary to the NPPF, the SEALR's current design conflicts with the developing policies of the Stoke Mandeville Neighbourhood Plan, which carries significant weight as part of the development plan. Specifically:
 - a. The design of the SEALR does not positively contribute to the Neighbourhood Plan goal of building up a clearer structure and cohesion to the Parish. On the contrary, by creating a significant physical and visual barrier between the northern and southern settlements of the Parish, it reduces the clarity of the structure and diminishes the cohesion of the Parish.
 - b. The design of the SEALR does not meet garden town planning principles and does not positively contribute to the Neighbourhood Plan's goal of creating a beautiful green natural environment for local people. On the contrary, as a large urban road structure in an elevated position, the SEALR is a visual eyesore and environmental blight, thus actively preventing the maintenance and enhancement of the Parish as a beautiful green natural environment for local people.
 - c. The design of the SEALR does not actively contribute to the NP goal of creating good transport routes, both within the Parish and connecting it to other areas. While the SEALR

offers two access points within the Parish to the strategic road network, thus potentially improving Parish connections to areas outside the Parish, the SEALR's design actively reduces connections within the Parish, and particularly north-south connections, by forming a barrier between the northern and southern settlements. It also prevents good connections being made between the four existing parish settlements and the two new settlements proposed by the VALP to be developed within the Parish.

d. The design of the SEALR does not match the SM Corridor NDA goal that the area should provide 'a new focus and hub for the Parish by offering a green setting for shared Parish amenities such as retail, health, education, employment and recreation, sharing these uses with the SEALR link road and housing development'. The SEALR's design should facilitate and support this land use policy but, as a rather crude elevated dual carriageway with only terminal junctions, it manifestly does not do so.

e. The design of the SEALR does not match the SM Corridor NDA goal that this area should 'offer open space and a green landscape which provides separation, avoids coalescence and protects the setting of the northern wards and the village'. Rather, the SEALR encroaches upon and, as an elevated highway, blights the setting of Stoke Grange and Stoke Leys.

f. The design of the SEALR does not match the SM Corridor NDA goal that this area should provide 'critical north-south and east-west connectivity for the Parish and connect the Parish to its adjoining Garden Town settlements and existing villages'. The SEALR provides east-west connectivity only as part of a closed-loop strategic link road; it does nothing to increase intraParish east-west connectivity. Worse, the SEALR is a positive barrier to north-south connectivity between the northern settlements of Stoke Grange and Stoke Leys and the projected sixth settlement near Hawkslade, and the southern settlements, i.e., the projected fifth settlement within the Corridor NDA and the village settlement.

5. The design of the SEALR conflicts with the NPPF in that it fails to consider the transport needs of the 3000+ houses adjacent and near its route envisaged by the VALP and projected to be built under outstanding planning applications. Appendix one below provides some additional information on the views of the planning committee.

Appendix One NOTES ON SEALR APPLICATION:

1. The design of the SEALR has been developed in isolation from the design of the AGT1 development which shares its land and of the new Garden Town initiatives such as the GardenWay. This has led to fragmented planning and a design solution which does not meet basic requirements.

2. The decision to move the road slightly further from Stoke Grange is welcomed, although there are still a significant number of houses within 100 metres of what will be a major dual-carriageway highway. This stands in marked contrast to the treatment of neighbourhoods along the other sections of the southern link road, eg Hampden Fields and Woodlands.

3. The decision to attempt to mask the visual, environmental and noise blight of the road by wider environmental bunds is also welcomed but does not nearly go far enough. At the least, sound-reducing fencing like that used on the A41 and along HS2 should be used.

4. The road design creates a symbolic, visual, and practical barrier between different parts of Stoke Mandeville and the wider garden town such as AGT1. At the least, there must be multiple cycle and accessible underpass foot connections north-south across the line of the SEALR, connecting land and communities on either side of the road.

5. The bridge design creates a chokepoint for east-west cycle and pedestrian movements and the incline makes the bridge inaccessible for many users. A design which incorporates

accessible cycle and pedestrian crossing points north and south of the main highway bridge is needed, as seen in Milton Keynes.

6. Critically, the design of the SEALR as a straight elevated highway maximises its visual, environmental and noise blight and creates a situation where the highway cannot fail to be a barrier between neighbourhoods and communities. The design of the link roads within Hampden Fields and AGT2 both show more flexibility and use of space to create connections and separation between housing, recreation, and roads. This should be done for the SEALR also – for example, a road design which curved south before crossing the railway would protect existing neighbourhoods and allow a design which does not create so great a barrier.

7. For the reasons stated above, the road design does not comply with the emerging policies of the Stoke Mandeville Neighbourhood Plan.

Aylesbury Town Council - Aylesbury Town Council supports the application as a vital part of the road network infrastructure. However given the changes the world is seeing as part of the pandemic and the ongoing need to keep socially distancing we think it would be prudent to increase the width of the shared cycle/pedestrian and pedestrian paths on the north/south side of the road respectively.

Consultation Responses (Summary)

Arboricultural Officer– (June 2020) A full check of the AIA has been conducted, with cross referencing the Tree Constraints Plan and Tree Protection Plan. An additional check of the Landscape Proposals has been checked against the AIA. From an Arboricultural perspective there is no major recommendations to oppose the application. Appendix C (titled 'Tree Protection Plan') also shows features to be removed. Consider incorporating 'tree removals' (or similar) into title as this adds clarity to plans. It is recommend that an Arboricultural Method Statement forms part of the planning conditions as referenced within the existing AIA report.

Further comments (December 2020): There are no specific documents relating directly to arboriculture amongst the most recently uploaded additional information documents, however, a combination of landscape and ecology documents have been reviewed and there are no additional comments to be made since the previous arboricultural response of 11 June 2020.

HS2 safeguarding (June 2020) - Following the decision to proceed with HS2 earlier this year, on 15 April 2020 HS2 Ltd marked the next step for the project after issuing 'Notice to proceed' to the companies that will undertake construction on Britain's new high speed railway.

After careful consideration of the independent Oakervee review, the Prime Minister confirmed to Parliament in February 2020 that the project should go ahead to deliver vital improvements to capacity and connectivity needed in towns and cities across the country, delivering on the government's levelling up agenda. 'Notice to proceed' marks the formal approval for the project to begin the construction phase and HS2 Ltd is now entering Stage 2 of the main works civils contracts, with each held by a specific joint-venture.

From review of the supporting planning statement produced by Aecom it is noted that the following references are made HS2:

- p8: the scheme is partially funded by HS2 '(which acknowledges there is likely to be an impact on

the A4010)'.
- p9: under the heading of what the proposals will deliver: 'Ensuring that the HS2 affected network will not perform any worse than it would under a non HS2 proposal;'
- p10: The key infrastructure on the road will be an overbridge crossing the Aylesbury line, 'which will be funded by HS2 (through an assurance negotiated by BCC).'
- p10: Western boundary of the application site is 'Current Agricultural land, forming part of the proposed HS2 Stoke Mandeville Bypass.'
- p29: under relevant policy section of the emerging local plan - Policy T2 highlights that "the Council will continue to work with HS2 Ltd with the aim of influencing the design and construction of the route through Aylesbury Vale to minimise adverse impacts and maximise any benefits that arise from the proposal".
- p29: under Aylesbury Transport Strategy - relating to the site and proposed development. It outlines how the local area will be impacted as a result of HS2 and that the proposed realigned and new link roads in this Sector are key to the continued growth of Aylesbury.

However, the only area of interface identified between the respective programmes is that the application red line boundary for the roundabout on Lower Road overlaps with HS2 Phase One Act Limits of Land to be Acquired or Used (LLAU). Following internal consultation with the Area Central Construction team and our appointed contractor, it is confirmed that HS2 Ltd has no objections to the proposals in safeguarding terms.

In the event that the Council is minded to grant planning permission for the proposed link road and associated works, given the application site's interface with the HS2 Phase One proposed scheme it is advised that dialogue between interested parties continues and ongoing progress of the HS2 construction programme is followed at: <https://eur03.safelinks.protection.outlook.com>. With that in mind it is also recommended that the following standard informative is included on the decision notice for purposes of awareness: The applicant is advised that the application site lies partially within land that may be required to construct and/or operate Phase One of a high speed rail line between London and the West Midlands, known as High Speed Two. Powers to construct and operate High Speed Two were secured on 23 February 2017 when Royal Assent was granted for Phase One of HS2. More information can be found at: <https://eur03.safelinks.protection.outlook.com>

Archaeology (June 20)- The cultural heritage documents included with the application are welcomed and the recognition that an archaeological excavation will be required, as is the written scheme of investigation for archaeological strip map and sample investigation produced by AECOM, and that Section 1.1 includes: The WSI will be reviewed and approved by the Archaeological Officer for Buckinghamshire prior to implementation. This review is necessary as it requires amending in places to be acceptable. Our main area of concern is Section 5.2.7 Public Engagement, Participation and Benefit which currently does not follow the spirit of NPPF Paragraph 199. While this section includes: The extent of the engagement will be defined in advance and agreed with the Client or their representative, and by the County Archaeological Service. This section should be more along the following lines: The Archaeological Contractor will consider a number of options for community engagement during and following the fieldwork. These may include, but need not be limited to, such things as:

- Site Open Day(s) for members of the public during the fieldwork and on completion of the fieldwork
- Site visits for interested parties such as local archaeological/historical societies
- Direct involvement of volunteers during the fieldwork and/or the post excavation process

- Talks to the local community and local interest groups such as schools and local archaeological/historical societies
- Digital engagement through 'web blogs' and video diaries.

Under Section 7 Monitoring, Progress Reports and Meetings it would be expected that the County Archaeological Service be supplied with the weekly written progress reports and a section on post excavation assessment which outlines this process and the types of analysis which are likely to be required. On the reporting the site should be included in Records for Buckinghamshire. If planning permission is granted for this development then it is likely to harm a heritage asset's significance so a condition should be applied to require the developer to secure appropriate investigation, recording, publication and archiving of the results in conformity with NPPF paragraph 199. With reference to the NPPF, based on the advice in DOE Circular 11/95, any consent granted for this development should be subject to the following condition:

No development shall take place, unless authorised by the Planning Authority, until the applicant, or their agents or successors in title, have secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the planning authority. The archaeological investigation should be undertaken by a professionally qualified archaeologist working to the agreed written scheme of investigation based on the Council's on-line template briefs and take the form of an excavation, post excavation analysis, archiving, reporting and where appropriate publication. The condition would not normally be discharged until all of the stages have been completed.

Further comments (December 2020)- The cultural heritage documents included with the application and the recognition that an archaeological excavation will be required is welcomed along with the updated written scheme of investigation for archaeological strip map and sample investigation produced by AECOM. If planning permission is granted for this development then it is likely to harm a heritage asset's significance so a condition should be applied to require the developer to secure appropriate investigation, recording, publication and archiving of the results in conformity with NPPF paragraph 199. With reference to the NPPF, based on the advice in DOE Circular 11/95, any consent granted for this development should be subject to the following condition: No development shall take place, unless authorised by the Planning Authority, until the applicant, or their agents or successors in title, have secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the planning authority. The archaeological investigation should be undertaken by a professionally qualified archaeological contractor working to the agreed written scheme of investigation based on our on-line template briefs and take the form of an excavation, post excavation analysis, archiving, reporting and where appropriate publication. The condition would not be discharged until all the stages have been completed.

Ecology Officer – Original comments received June 2020, updated comments below dated January 2021: No objection subject to:

- Update of LEMP – further information is requested to be included in the LEMP although it would be satisfactory for this to be dealt with through a planning condition, if appropriate.
- Planning conditions to protect existing ecological features of interest and secure post construction monitoring to ensure effectiveness of mitigation and long-term enhancement of biodiversity. Key points and recommendations are underlined.

Many of the queries from the previous response (dated 15 June 2020) have been addressed in the ES Addendum and revised appendices.

Comments on ES Addendum - Paragraph 7.8.21 of the ES Addendum, on badgers, indicates that wildlife crossing solutions will be considered if animals become trapped upon the road. There is no reference to how this will be monitored. To ensure this is monitored it is recommended that a monitoring strategy for badger fatalities is secured through a suitably worded planning condition, should permission be granted. See conditions section below.

The addendum now includes reference to monitoring of the use of the north-south corridor by wildlife as follows: *"7.9.16 Monitoring surveys should also be undertaken to confirm the use of the retained north-south wildlife corridor by foraging and commuting bats. 7.9.17 The retained north south wildlife corridor located west of the railway will require post construction monitoring to record the use of this feature by badgers."*

The proposed monitoring is supported and it is recommended that this is secured through a suitably worded planning condition, should permission be granted.

Comments on great crested newts are set out below. All other comments from our previous response on the Ecology Chapter have been satisfactorily addressed. See below for comments on the appendices and other related documents.

Comments of Ecology Reports – Appendix C - At the time of the previous submission in June 2020 much of the ecology survey work had yet to be undertaken. The additional submissions include updated reports of all anticipated survey work and assessment. These include updated information on bats, water vole, otter, reptiles, great crested newt, badger, birds. Comments are made for GCN only. We have no further comments or concerns relating to the assessments made for the other species/species groups and welcome the updates to each of the individual reports as previously requested.

GCN survey report - Previously it was advised that planning permission should not be granted until the presence or likely absence of GCN, and any impacts on this species, is determined. GCN surveys have since been undertaken and confirmed the presence of a small population in a pond (Pond 1) located 245m to the south east of the proposed scheme. It is understood the timing of the surveys deviated slightly from best practice guidelines due to the Covid-19 pandemic, however, the survey methods and results are considered adequate to inform the assessment. The assessment concludes that a European Protected Species License is not required as negative impacts on GCN are unlikely given the distance of the site from the pond and quality of habitat. The assessment and rationale for this conclusion are supported. It is considered unlikely that the scheme would result in significant adverse impacts on the favourable conservation status of GCN. Furthermore, the proposed non licensed method statement (NLMS) will minimise potential impacts on any individual great crested newts. Appendix C3 - GCN Report includes an outline of the measures that will be included in the NLMS and these are supported. It is recommended that a NLMS for GCN is secured through a suitably worded planning condition, should permission be granted.

Comments on Landscape Ecological Management Plan (LEMP) - It was previously noted that the LEMP lacked reference to ecological mitigation and compensation. The updated LEMP (December 2020) has not been updated with information requested in our previous response. This is reiterated below, as follows:

The scheme has been designed to mitigate and minimise and compensate for ecological impacts on bats, barn owl and badgers in particular. There is no reference in the LEMP to barn owl or badger. There is limited mention of bats and birds (reference to habitat boxes only, not planting/landscaping). The assessment of significance of likely residual ecological impacts provided in the Ecology Chapter is based on the design of the scheme, with strong reference to landscaping. It follows that the importance of the landscaping, and the appropriate receptor-specific measures, should be included in the LEMP.

It is recommended that the LEMP is amended to include reference to the ecological requirements of the scheme for maintaining and creating functional habitat for certain species, as per the details of the Ecology Chapter.

The LEMP does not set out the design, function and actions for waterbodies and associated plants (LE6.1) as has been described for other habitat types. There is also no detail on what species will be planted for LE6.1. It is recommended that the LEMP is updated to include wetland species planting and management. The ES chapter refers to the proposed waterbodies as being suitable for great crested newt and therefore it is recommended these features are designed and planted appropriately.

It is recommended that the Landscape and Ecology Maintenance Schedule is updated to include inspections of the bat and bird boxes as described in the text (section 5).

Comments on Biodiversity Net Gain - A revised BNG report has been submitted and reviewed. It is notable that the proposed scheme has the potential to deliver an overall net gain of approximately 14.07% in habitat units and 12.51% in hedgerow units. This exceeds the net gain calculated at the time of the previous submission.

The delivery of biodiversity net gain will be dependent on the implementation of the LEMP. The BNG calculation is dependent on the proposed landscape scheme and therefore the BNG assessment will need to be revised in line with any changes in the scheme.

Comments on Outline Environmental Management Plan - The measures outlined in section 10 to protect ecology are considered appropriate and are supported. It is recommended that a Biodiversity CEMP is secured through a planning condition, should consent be granted. See section below.

Suggested Planning Conditions

Protected Species Monitoring: Prior to the operation of the development a biodiversity monitoring strategy shall be submitted to, and approved in writing by, the local planning authority. The purpose of the strategy shall be to monitor the effectiveness of the newly created habitats in mitigating adverse effects on foraging and commuting bats, breeding birds, foraging and commuting barn owl and badger activity in order to allow for remedial action to be undertaken as appropriate. The content of the Strategy shall include the following:

- a. Aims and objectives of monitoring to match the stated purpose.
- b. Identification of adequate baseline conditions prior to the start of development.
- c. Appropriate success criteria, thresholds, triggers and targets against which the effectiveness of the various conservation measures being monitored can be judged.
- d. Methods for data gathering and analysis. Page 4 of 5
- e. Location of monitoring.
- f. Timing and duration of monitoring.
- g. Responsible persons and lines of communication.
- h. Review, and where appropriate, publication of results and outcomes.

A report describing the results of monitoring shall be submitted to the local planning authority at intervals identified in the strategy. The report shall also set out (where the results from monitoring show that conservation aims and objectives are not being met) how contingencies and/or remedial action will be identified, agreed with the local planning authority, and then implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The monitoring strategy will be implemented in accordance with the approved details.

Non-Licensed Method Statement for great crested newt - No development shall take place (including any vegetation clearance, ground works, site clearance) until a Non-Licensed Method Statement for great crested newt has been submitted to and approved in writing by the local planning authority. The content of the method statement shall include :

- a. purpose and objectives for the proposed works;
- b. detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
- c. extent and location of proposed works shown on appropriate scale maps and plans;
- d. timetable for implementation; e. persons responsible for implementing the works. The works shall be carried out strictly in accordance with the approved details.

Construction Environmental Management Plan (CEMP for Biodiversity) - No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan for Biodiversity has been submitted to and approved in writing by the local planning authority. The CEMP shall include but not be limited to measures for breeding birds, reptiles, badgers, bats and great crested newt. It shall include a sensitive lighting strategy to minimise impacts on bats during the construction period. The CEMP shall include the following:

- a. Risk assessment of potentially damaging construction activities.
- b. Identification of ecological features requiring protection and any “biodiversity protection zones” as appropriate.
- c. Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
- d. The location and timing of sensitive works to avoid harm to biodiversity features.
- e. The times during construction when specialist ecologists need to be present on site to oversee works.
- f. Responsible persons and lines of communication.
- g. The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
- h. Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

Highways– June 2020 and January 2021 – see Appendix B.

Landscape – (July 2020) Summary: Chapter 7 of the ES presents a Landscape and Visual Impact Assessment (LVIA) of the proposed scheme. The LVIA sets out the applicant’s assessment of the landscape and visual ‘baseline’ and also the applicant’s conclusions on the potential landscape and visual effects of the proposed development on that baseline. The LVIA identifies that, in the applicant’s opinion, the proposed development will result in Significant Residual Effects (i.e. permanent effects) to the landscape character of the Southern Vale Landscape Character Area (LCA 8.10) and also Significant Residual Effects (i.e. permanent effects) to the Visual Amenity of seven sets of ‘representative receptors’ in and around the proposed development (in particular on PRoW users to the north east, PRoW users and residents to the south east, PRoW users and residents to the south west, PRoW users to the immediate south and PRoW users to the somewhat more distant south). Whilst the applicant’s conclusions are agreed with in relation to these identified receptors, the applicant has unreasonably failed to identify additional Significant Residual Effects on identified ‘representative receptors’ and thereby reaches conclusions that somewhat underplay the extent of the residual (permanent) effects that would result from the proposed development.

Detailed Comments: The applicant is clear that the proposed LVIA has appropriately been carried out ‘with reference to [amongst others the] Guidelines for Landscape and Visual Impact

Assessment, Third Edition. (Landscape Institute and Institute of Environmental Management and Assessment, 2013) (referred to as GLVIA3 in this assessment)' (ES para 7.3.4). Following the guidance within the GLVIA3 would reasonably be regarded as best practice.

With regard to the assessment of the Visual Amenity Effects of the proposed development, the submitted LVIA identifies four main 'visual receptor groups' ('PRoW Users', 'Road Users', 'Recreational Users' and 'Residents') that will potentially be effected by the proposed development and then sets out to assess these potential effects from fourteen identified 'Representative Viewpoints' (viewpoints that were agreed with the Council in 2018).

The assessment in the LVIA of the significant visual effects that would result from the proposed development identifies that visual receptors to the north west, south east, south west and south will suffer significant adverse residual visual impacts and that these receptors would be both users of PRoW's and residents.

Interestingly the receptors in closest proximity to the proposed development in all the representative 'visual receptor groups' are those situated in and around the existing residential area on the edge of Aylesbury immediately to the north of the proposed development (identified in the LVIA as 'Residents on the southern edge of Aylesbury: Patrick Way, Charles Close, Diane Walk, Dalesford Road' and recreational users of the associated areas of open space that lie between much of this housing area and the northern boundary of the application site) and yet despite this proximity these none of these are identified as suffering any significant adverse residual effects.

The viewpoint identified to be 'representative' of these 'visual receptor groups' is Viewpoint 6 ('View from the open space at Diane Walk'). The LVIA identifies that 'this viewpoint, less than 100m from the boundary of the Proposed Scheme, represents views of the residents at the southern edge of Aylesbury at Diane Walk' and that 'the views of users of the public open space have also been considered' (ES para 7.6.9).

The LVIA states that 'the majority of the tree lined boundary to the Proposed Scheme heavily screens or filters the views of the Proposed Scheme and the adjacent open space. A small number of gaps in the vegetation provide glimpses of parts of the Proposed Scheme'. It also notes that 'this view is considered to be of community value' (ES para 7.6.9).

With regard to the assessment set out in the LVIA for this viewpoint (see ES para 7.10.26 et. Seq.), despite this being identified as a viewpoint representative of 'residents on the southern edge of Aylesbury' and users of the open spaces, the author of the LVIA gives the unfortunate impression that only the residents of Diane Close and the open space within which the viewpoint is located have been considered when reaching conclusions on the potential effects of the proposed development (as these appear to be the only representative receptors referred to in the text). If this is the case then this would be a serious omission as it would appear to be basing an assessment on a 'view of community value' that seeks to represent impacts on a significant number of receptors along over half a kilometre of the northern boundary of the scheme on a small and very specific section of this boundary. This is potentially misleading.

By way of example of the problem, the text in the LVIA for Viewpoint 6 states that 'views are oblique, mainly from side elevations and they are therefore assessed as having medium susceptibility to change' (ES para 7.10.23). Whilst this may be the case for some of the properties in the western section of this area, it is clearly not the case for the majority of properties (particularly those in the central and eastern areas) and in particular those on Diane Walk itself as well as those on Charles Close and Patrick Way. These properties face directly towards the proposed development at distances of between 25-75m. Whilst it is true that there is a relatively substantial existing deciduous hedge between the proposed development and these properties (and that this is capable of being reinforced with additional planting) it is also the case that there are a number of areas where the existing vegetation is sparser and, perhaps more importantly,

both the existing and proposed vegetation is (and appropriately would be) deciduous in character and as such will have limited efficacy in mitigating the visual impact of the proposed development and the associated vehicular activity even over the long term.

The GLVIA3 makes it clear that properly conducted assessments must consider the 'worst case' scenario and, as such, the assessment of visual impacts must consider winter time scenarios when leaf cover is minimal.

In addition to a rather curious approach to considering the 'extent' of the receptors here, the LVIA also reaches rather unusual conclusions in relation to the sensitivity of the receptor and the magnitude of the effect of the proposed development.

In the LVIA's own methodology it identifies that visual receptors of the highest sensitivity would include 'residents or people engaged in outdoor recreation whose attention is focused on the landscape' (ES para 7.3.32) this is consistent with advice in the GLVIA3 and would seem to very accurately describe both the residents and users of the open spaces looking out onto the open countryside that lies immediately to the south on this edge of Aylesbury apparently being 'represented' by Viewpoint 6.

Despite this, and for reasons that are not adequately explained, the LVIA identifies the receptors here as being of only 'Moderate sensitivity' (ES para 7.10.24). This is inconsistent with the LVIA's own methodology and is, in my opinion, unreasonable. In line with the methodology (and indeed common sense) these receptors must reasonably be concluded to be highly sensitive to changes in the views that they currently enjoy of this green/rural outlook.

With regard to the magnitude of effect of the proposed development, the author of the LVIA concludes that the change to the existing rural outlook that would occur as result of the introduction of 'notable embankments' topped by 'acoustic barriers' and the 'road and traffic' that will pass along the SEALR would constitute only a 'moderate magnitude of effect' (described in the methodology as a project that would only 'form a noticeable feature or element of the view which is readily apparent to the receptor' ES para 7.3.33). Bearing the existing rural outlook of these receptors, the effect would be at least this and may in fact border on being one where the 'project, or a part of it, would become the dominant feature or focal point of the view' (ES para 7.3.33) which is to say a 'Major' effect.

In any case, the LVIA concludes that the overall 'significance of effect' at this viewpoint would be 'a moderate adverse effect during the first year of operation, which is not considered significant' (ES para 7.10.76). This conclusion appears to be largely based on the assessment that the receptors here are of only 'moderate' sensitivity. As explained above, I believe that this is an unreasonable assessment and thus if the more appropriate 'high sensitivity' of these receptors is taken into account it would be much more reasonable to conclude that the overall residual significance of effect for the receptors along this southern edge of Aylesbury would be 'Moderate/large' and that this would be properly regarded as resulting in a significant adverse residual effect for these receptors.

Conclusion and Recommendations - For the reasons set out above, the submitted LVIA somewhat underestimates the level of residual impact of the proposed development. The proposed development will result in significant adverse residual landscape and visual effects to the both the receiving landscape and to visual receptors (including users of PRow's, areas of public open space and residents) along the southern edge of Aylesbury that lies to the north of the application site as well as to other similar receptors to the north east, south east, south west and south of the application site. As such the appropriate negative weight should be placed in the balance when considering the landscape and visual effects of the proposed development in any planning consideration.

Lead Local Flood Authority – (June 2020) The LLFA requests further information in relation to the surface water drainage scheme prior to the determination of the above proposals and an amended FRA to include a detailed assessment of groundwater flood risk based on the findings of the Ground Investigations Report (Ref. 605355364/GEO/GIR/001). Surface water flood risk The Flood Map for Surface Water (FMfSW) shows that the site is in an area of low, medium and high risk of surface water flooding associated with the Southcourt Brook, Bedgrove Brook and surface water overland flow routes within the wider catchment. The FRA provides an overview of surface water flood risk, with detailed modelling presented in the Surface Water Hydraulic Modelling Assessment (17th October 2019, AECOM) and the Flood Risk Addendum (Ref. 60535344, March 3rd 2020, AECOM). The reports identify that mitigation measures are required in order to ensure that there is no increase in surface water flood risk elsewhere as a result of the proposals. In particular, within the western catchment, a culvert is required to enable conveyance of a surface water overland flow route under the proposed dual carriageway. In addition, a flood storage area (FSA) is required in land adjacent to the Bedgrove Brook (eastern catchment) to accommodate the backing up of flows from the watercourse. In relation to the surface water flood risk associated with the Southcourt Brook, the FRA (section 3.7) makes the following comments: 'It is also showed that a narrow area in the centre of the site is subject to 'High' flood risk (greater than 1 in 30 (3.3%) annual probability). This is associated with the ditches that through the centre of the site (including the Southcourt Brook watercourse). The bridge structure will not impede any surface water flow path, with no development within this medium to high risk area. There is no structure footprint within this area, so there is no increased risk to surrounding areas.' The above comments are unclear and require further clarification as the proposed carriageway does encroach in an area of high surface water flood risk associated with Southcourt Brook. The drawings contained in Appendix D – Proposed Scheme Plans are out of date as no reference is made to the Bedgrove Brook FSA.

In relation to the surface water flood risk, clarification is sought on the following matters:

- Further details of the Bedgrove Brook FSA, including maximum water depth, timings of inflows and outflows and freeboard provided along with cross sections through both the FSA and Bedgrove Brook.
- Further details of the reduction in flood depths referred to within Section 4.11 of the Surface Water Hydraulic Modelling Assessment.
- Further explanation on the need for the toe ditch in the eastern catchment to manage surface water flows as from the model outputs, there does not appear to be any interaction between the toe ditch and the surface water overland flow route.
- Provide maps which show the difference in depth between the baseline and the proposed scenario (with mitigation) and sensitivity tests.
- Provide cross-section across the flow routes within the western catchment of the SEALR with details of water level and peak flows.
- Hydrographs for with and without scheme for the channels and ditches downstream of the road.
- Clarification on the flooding mechanisms occurring at the upstream side of the culvert in the western catchment with commentary on any changes from the pre-development scenario to post development scenario.
- Section 4.11 refers to a reduction in flood depths in the residential area to the north of the SEALR embankment; further details on the flood depths would be welcomed.

Groundwater flood risk - The Infiltration SuDS Map provided by the British Geological Survey 2016, indicates that the water table is anticipated to be within 5m of the ground surface in the area around Southcourt Brook and Bedgrove Brook. Therefore, we advise that the risk of high groundwater be assessed in relation to the above proposals as this may have implications on surface water drainage components, such as reduced capacity in periods of high groundwater

levels if mitigation measures are not put in place. From reviewing the FRA, it is evident that groundwater flood risk has not been appropriately assessed as this document has not been updated to reflect the findings of the Ground Investigations report (Ref. 605355364/GEO/GIR/001). The current assessment within the FRA is as follows:

‘There is some potentially shallow groundwater on the site. Although there is no expected barrier to groundwater, drainage strategy for the site will consider any groundwater interaction with any proposed SuDS on the scheme.’

However, the application does not contain a surface water drainage strategy and so it is not possible to assess if groundwater flood risk has been robustly addressed. There should also be an assessment on the impact of mitigation measures on the local water table.

Ground investigations identified groundwater at varying depths across the site; with trial pit WS117 (to the east of Wendover Road) recording the highest groundwater level at a depth of 0.2m below ground level. There are concerns that the attenuation ponds and the FSA are located in areas of high groundwater. When comparing the surface water drainage drawings to the locations of the trial pits, it is understood that Attenuation Pond (west) is in an area where groundwater was measured at 0.47m below ground level. Additionally, groundwater was encountered at 0.36m below ground level in the location of the Attenuation Pond (east) and the FSA. From the information presented on the drawings the attenuation ponds are to be a minimum of 1.75m deep. In periods of high groundwater the attenuation ponds may become inundated with groundwater and therefore may have reduced capacity to manage surface water.

As stated above, as a surface water drainage strategy has not yet been submitted, it is not known if the impact of high groundwater upon the surface water drainage scheme has been fully assessed and if adequate mitigation can be provided. It is assumed that any proposed mitigation to stop groundwater ingress into the surface water drainage system will involve the lining of the attenuation ponds. Therefore, it should be noted that floatation calculations will be required at detailed design stage.

Surface water drainage - Whilst surface water drainage drawings have been provided, as mentioned above, these require updating to reflect the findings of the supporting technical reports. In addition, the application must be supported by a surface water drainage statement, this should include (but not limited to) the information listed below:

- Calculations of the existing pre-development flow rate and volume at the discharge point(s) for a range of return periods up to the 1 in 100 year. It may be appropriate to use subcatchments.
- Calculations of the post development flow rate and volume at the discharge point(s). It may be appropriate to use sub-catchments.
- Calculations to determine the size of attenuation and/or infiltration features, to show that what is in the layout is technically feasible.
- Preliminary assessment of all SuDS methods and their suitability for use in the proposed development.
- Understanding and consideration of health & safety and maintenance aspects of the design, including who will be responsible for managing the maintenance throughout the life of the development.
- Any requirements for temporary drainage features or discharge points during construction. o) Phasing of development.
- Indicative construction drawings for the surface water drainage scheme.

In absence of the above information, the LLFA are unable to assess the application in relation to changes in surface water flood risk.

Further comments (January 2021) - The LLFA has no objection to the proposed development subject to the planning conditions listed below being placed on any planning approval.

Surface water flood risk - The Flood Map for Surface Water (FMfSW) shows that there are areas of the site at low, medium and high risk of surface water flooding associated with the Southcourt Brook, Bedgrove Brook and surface water overland flow routes within the wider catchment. The FRA provides an overview of surface water flood risk and fluvial flood risk from ordinary watercourses, with detailed modelling presented in the Surface Water Hydraulic Modelling Assessment (17th October 2019, AECOM) and the Flood Risk Addendum (Ref. 60535344, March 3rd 2020, AECOM) as contained in the above referenced Flood Risk Assessment. The reports identify that flood risk mitigation measures are required. Within the western catchment, there is an overland surface water flow route which flows south to north on the site boundary of Lower Road as well as the Southcourt Brook which flows in the same direction on land near to the railway line. The proposed alignment of the SEALR is perpendicular to both the overland surface water flow route and the brook. At each location, the SEALR is on a raised embankment and therefore in the absence of any mitigation measures the proposals would alter the catchment characteristics and ultimately flood risk.

Overland Flow Route Mitigation - Therefore, the Flood Risk Assessment Addendum proposes a culvert to enable conveyance of a surface water overland flow route under the proposed dual carriageway. The minimum size for the culvert is 1.2m x 1.2m for conveyance purposes; however the future asset owner, Transport for Buckinghamshire, has requested a 1.5m x 1.5m box culvert for ease of maintenance.

The Depth Difference Map (Proposed Development) 1% AEP (1 in 100 Year) Event +40% Climate Change Allowance (drawing no. 60535364-SHT-0000-C-0070) shows that there is a reduction in flood risk to the land to the north of the road alignment, which forms part of AGT1 site allocation. A reduction in flood risk is also identified on the Stoke Mandeville Hospital site and Stoke Mandeville Stadium site. The Planning Practice Guidance (PPG) encourages developers and local authorities to seek opportunities to reduce the overall level of flood risk in the area and beyond. The LLFA views the reduction in flood risk in the area downstream of the SEALR positively.

The Flood Risk Assessment Addendum highlights that despite the addition of the culvert to allow for conveyance of flow, some ponding of surface water will occur upstream of the culvert for the 1 in 100 year plus climate change event as shown on Depth Difference Map (Proposed Development) 1% AEP (1 in 100 Year) Event +40% Climate Change Allowance (drawing no. 60535364-SHT-0000-C-0070). The anticipated depth is up to 0.5m reducing to below 0.1m within three hours. The Surface Water Hydraulic Modelling Assessment sets out that the current ditch in this area is represented solely by LiDAR data and therefore, the flow capacity is likely to be underestimated. Notwithstanding any data limitations, the proposals do indicate a change in flood risk at this location. As a result, the applicant has liaised with the adjacent landowner to seek an in-principle acceptance of the localised increase in flood risk. This in-principle acceptance has been obtained and therefore, we wish to draw your attention to the steps outlined in the Flood Risk Assessment Addendum and Surface Water Hydraulic Modelling Assessment to seek to address the localised area of increased flood risk at detailed design:

- Landscaping of land on the approach to the culvert to improve collection of flow by the culvert to minimise this ponding depth.
- Additional landscaping could be undertaken to reduce the maximum water depth by storing this flood water over a wider area at the toe of the embankment.
- More detailed modelling of the ditch on the downstream side of the embankment could show that water would flow away from the outlet of the culvert which would prevent upstream flooding
- Increase capacity in the ditch to minimise the backwater effect through the culvert

Southcourt Brook Mitigation

The proposals will cross the Southcourt Brook and to allow for a continuation in flow, the FRA proposes the use of a culvert, 1.5m x 1.8m. The size of the culvert was agreed with by Transport for Buckinghamshire due to maintenance requirements. The Surface Water Hydraulic Modelling Assessment identifies that there is a predicted 0.05m increase in peak flood depth on the upstream side of the culvert. This is proposed to be contained within the redline boundary, however the Depth Difference Map (Proposed Development) 1% AEP (1 in 100 Year) Event +40% Climate Change Allowance (drawing no. Figure D-1) shows an increase outside of this area. As with the above change in flood risk, agreement has been sort with the relevant landowner.

The LLFA acknowledges the in-principle agreement from the adjacent landowner and in combination with the wider benefits of the proposals in terms of flood risk reduction in the locality; the LLFA is in agreement that further work to seek to reduce the flood risk in the upstream area of the culvert is a reasonable approach.

Bedgrove Brook Mitigation

Turning to the eastern catchment, there is an existing flood risk associated with the Bedgrove Brook and the associated backing up of flows from the existing culvert under the A413 Wendover Road. In order to reduce flood risk to the SEALR junction and A413 Wendover Road, the Flood Risk Addendum (Ref. 60535344, March 3rd 2020, AECOM) proposes a flood storage area (FSA) adjacent to the Bedgrove. The proposed flood storage will have an anticipated depth of 1.2m and will provide up to 7,000m³ of storage. The provision of the flood storage area will result in an anticipated reduction in peak flow in the A413 culvert from 2.53m³/s to 2.4m³/s.

The Depth Difference Map (Proposed Development) 1% AEP (1 in 100 Year) Event +40% Climate Change Allowance (drawing no. drawing no. 60535364-SHT-0000-C-0070) indicates that the proposals will provide a reduction in flood risk areas outside of the red line boundary, namely, Stoke Grange housing estate and land to the south of the FSA which falls within the AGT1 site allocation. In these areas, the SEALR provides a positive contribution to reducing flood risk elsewhere.

However, there is an area to south of the proposed roundabout on the A413 that shows an increase in flood risk as shown on the Depth Difference Map (Proposed Development) 1% AEP (1 in 100 Year) Event +40% Climate Change Allowance (drawing no. drawing no. 60535364-SHT-0000-C-0070). As with the above, the applicant has liaised with the adjacent landowner to seek an in-principle acceptance of the localised increase in flood risk, an in-principle acceptance from the relevant landowner has been obtained.

Groundwater flood risk

The Infiltration SuDS Map provided by the British Geological Survey 2016, indicates that the water table is anticipated to be within 5m of the ground surface in the area around Southcourt Brook and Bedgrove Brook. The concerns of high groundwater has been supported by the results of the ground investigations which identified groundwater at varying depths across the site; with trial pit WS117 (to the east of Wendover Road) recording the highest groundwater level at a depth of 0.2m below ground level. The Surface Water Drainage Strategy (Rev. 02, 24th November 2020, AECOM) confirms that the surface water drainage system will be lined to prevent groundwater ingress.

Surface water drainage

Following the previous consultation response on 8th June 2020, a Surface Water Drainage Strategy has been provided by the applicant to support the above proposals. The surface water drainage scheme is split into two catchments, western and eastern both draining via gravity to strategic attenuation basins prior to discharging to nearby watercourses, Southcourt Brook and Bedgrove Brook at a rate of 2l/s/ha up to the 1 in 100 year storm event plus an allowance for climate change.

Compliance with the Drainage Hierarchy (paragraph 080, PPG) has been demonstrated, ground investigations found that the infiltration as a means of surface water disposal was not viable due to low permeability rates and observed high groundwater levels. Therefore discharging to nearby watercourses is the next most practicable solution.

The restricted discharge rate of 2l/s/ha for each of the catchments provides betterment on the existing discharge rate from the greenfield site as shown in Table 7 of the Surface Water Drainage Strategy. As mentioned, prior to discharging surface water runoff will be attenuated in basins, these will have a side slope of 1:3 and a vegetated shelf which is set to the 1 in 30 year water level. The basins will also include a 300mm freeboard for exceedance events. The drainage layouts for both catchments are shown on Drainage General Arrangement Sheet 1 and 2 (Drawing no. 60535364-SHT-00-0000-C-0015 and 60535364-SHT-00-0000-C-0016).

Calculations which demonstrate the runoff volumes for the 1 in 100 year plus 40% climate change allowance have been provided as previously requested. The calculations demonstrate that there will not be an increase in runoff volume at this return period and therefore complies with S4 of the Non-Statutory Technical Standards for Sustainable Drainage Systems (Defra, 2015).

The drainage is designed to accommodate the 1 in 100 year plus 40% allowance for climate change event. The Surface Water Drainage Strategy (4.8.10) identifies that for the 1 in 100 year plus 40% allowance for climate change event there is flooding of the drainage system, this is isolated to the carriageway. The Surface Water Drainage Strategy suggests that 'this caused by throttling of upstream pipes and is considered to remain within the carriageway prior to re-entering the proposed drainage system', it is advised that at detailed design this is investigated further and the hazard associated with these flood events is investigated so as to understand and provide mitigation to highway users. As previously discussed, high groundwater levels were observed onsite and therefore it is proposed to line the basins to ensure that storage capacity is not reduced in the event of a period of high groundwater. The associated flotation calculations will need to be revised once the required storage volumes are confirmed in detailed design.

The Surface Water Drainage Strategy contains an indicative Exceedance Plan for overland flow routing in Appendix I. This is in the event that a storm event occurs that is greater than the 1 in 100 year plus an allowance for climate change or there is a system failure.

Ditch Diversions

As part of the surface water drainage two ditch diversion are proposed. The ditch parallel to the proposed SEALR will be diverted north and around the proposed surface water pond before being discharged into the Southcourt Brook, 60m north of the existing discharge point (Drawing no. 60535364-SHT-00-0000-C-0018).

The Ditch Diversion Plan Arrangement (Drawing no. 60535364-SHT-00-0000-C-0018) appears to show the Overland Flow Culvert discharging into the existing ditch north of the proposed culvert. Confirmation of this formal connection to the ditch network is required.

The second ditch diversion is proposed to the ditch which runs along the A413 to the east of the proposed SEALR. Due to the proposed roundabout it has been proposed to divert the ditch west and into Culvert C which will also take flows from the new ditch to the south SEALR (Drawing no 60535364-SHT-00-0000-C-0017).

At detailed design the impacts of the proposed ditch diversions should be investigated to demonstrate that they will not cause an increase in flood risk. Conditions are recommended.

Environmental Health – (May 2020) Draft EMP - It is accepted that at this stage of the development the EMP is only in draft form and will be developed into a full CEMP by the contractors during detailed design. The controls in relation to working hours, dust and air quality and noise and vibration contained in the draft EMP appear satisfactory but will need to be finalised at a later date. It is therefore recommended that the following condition is placed on any approval granted.

1. Prior to commencement of any construction activity a Construction Environmental Management Plan CEMP will be submitted to, and approved in writing by, the local planning authority. Reason: To protect residential amenity of properties closest to the construction site. Air Quality - A sufficient assessment of potential air quality impact has been carried out with due regard to residential properties closest to the construction, along adjacent traffic routes and the impacts on Air Quality Management Areas in Aylesbury. During construction there are potential impacts on both air quality and dust emissions for properties closest to the construction itself but these will be mitigated through controls agreed in the CEMP. There are also minor impacts due to construction traffic on the Stoke Road AQMA, however, these will only be short term and are not judged to be significant. Once the road is in operation the greatest change in air quality will be in those properties adjacent to the new road but will not result in exceedances of air quality standards. Depending on other road developments being completed there are a range of beneficial effects on the three AQMA's in Aylesbury and some small benefits and dis-benefits to other properties on adjacent roads. Overall, on air quality, this scheme has a positive benefit so there are no environmental health objections to the scheme.

Noise and Vibration - The impacts of noise and vibration have been modelled for a number of operational scenarios over a period of time. Detailed modelling of construction noise is not possible at this stage but will be completed during development of the CEMP although it is likely that some of the impacts will be significant on residential dwellings close to the construction site. The local authority also has a degree of control over construction noise through the provisions of Sections 60 & 61 of the Control of Pollution Act 1974 and the contractors will have to employ 'best practicable means' to reduce these impacts. In terms of noise from the operation of the new highway up to 227 properties are forecast to be significantly affected by increased noise levels, the majority on the Wendover Park Estate and around the junctions with the new road. Mitigation in the form of a 3m high noise barrier is assumed to be included in the development. Balancing these negative impacts there are smaller decreases in noise levels for some 600+ properties on surrounding roads due to changes in traffic flows in the opening year. Additional mitigation measures have been considered but confer little benefit compared with the costs involved in implementing them. The only other potential mitigation is the use of a low noise road surface. At the design speed of the proposed road the contributions to the total noise generated from the engine/drivetrain/exhaust and the wheel/road generated noise are approximately equal with engine noise being slightly higher. Engine noise becomes more prominent at lower speeds whilst at higher speeds wheel/road noise becomes increasingly dominant. Theoretically, at 40 mph, no matter how much wheel/road noise is reduced the overall reduction in noise levels can be no more than 3dB. The ES reports an estimated reduction of 2.5dB. However this reduction is based on the current mix of vehicles which are predominantly petrol/diesel driven. In the future year scenario it is highly likely that an increasing percentage of road vehicles will be electrically driven which do not produce the same level of engine/drivetrain/exhaust noise. This reduction means that the full benefits of the reduction in wheel/road noise using a low noise road surface can be realised and this may result in overall reductions greater than the 2.5dB quoted. The second aim of the Noise Policy Statement for England, 2010, is to mitigate and minimise adverse effect of noise (within the context of Government policy on sustainable development). Given that the use of a low noise road surface would contribute towards meeting this second aim it is suggested that

further consideration should be given during the detailed design phase to utilising low or ultra low noise road surfaces on the proposed road. Such consideration will need to include an assessment of the costs/benefits over the long term of such a solution. It is therefore recommended that the following condition is placed on any approval granted.

2. During detailed design a cost benefit analysis will be carried out to determine whether or not a low or ultra low noise road surface should be used in constructing this road. The analysis should include costs/benefits in the opening year, additional long term maintenance costs and additional benefits that may occur in future years due to the change vehicle fleet mix (Petrol/diesel v electric). The analysis will be submitted to and approved in writing by the Local Planning Authority. Reason: To ensure full compliance with the second aim of the Noise Policy statement for England.

Further comments (December 2020) The revised documentation has been reviewed, including the chapters on air quality and noise and vibration in the ES addendum. There are no additional comments over and above those made in May 2020.

Contaminated Land Officer - A review of the historical maps available for the site has been completed within the Preliminary Sources Study. This indicates that the layout of fields present today and the alignment of the A413 and B4443 were already developed in the earliest map available for 1878. In addition the most significant development on the site was the construction of the railway line which occurred by 1899. A walkover of the site was also conducted as part of the survey. This identified that no major sources of contamination were observed with the exception of potential contaminated run off from the A413, B4443 and railway line. It is therefore concluded that due to the presence of the roads and the railway line there is the potential for localised contamination to have occurred.

A risk assessment has therefore been completed which concludes that the overall potential geo-environmental risk associated with the site is low. Subsequently a ground investigation was completed at the site the results of which are contained within the Ground Investigation Report. A number of boreholes and trial pits were dug across the site mainly concentrating on the location of the proposed road and the soils sent for chemical analysis. The results conclude that when compared to the Generic Assessment Criteria (GAC) for a commercial/industrial end use, which it is agreed is the most appropriate GAC's to use in this situation, there are no elevated levels of contamination present. In addition any long-term risks to future users of the proposed development are mitigated by the general absence of a receptor. This is because the risk assessment assumes the site will not be permanently occupied and no public park or public recreation development is included in the proposed work scheme. After reviewing all of the contaminated land reports submitted and the results of the soil sampling these conclusions are agreed. The report also concludes that no remediation is required and based on the results of the soil sampling this is agreed.

It is recommended that no contaminated land conditions are required on this application. It is recommended that an informative should be placed on any planning approval granted to contact the Environmental Health department immediately if during development works contamination is encountered which has not been previously identified and that works must cease on site until an appropriate remediation scheme is submitted to and agreed in writing by the local planning

authority as failure to remediate site contamination during development could result in serious long-term health impacts to future users of the development.

Crime Prevention Design Advisor - From the submitted documents, culverts are proposed next to existing gullies that will be severed by the new carriageway. Should these culverts be of a sufficient height to allow access into or through, there would be significant concerns that these could attract crime and anti-social behaviour. These should be appropriately secured to prevent access to an area that lacks surveillance, light and legitimate activity to safeguard them from crime and anti-social behaviour.

Road speed and enforcement - The traffic management department has provided the following feedback:

- The key design components show that this to be a 1.2km dual carriageway, designed to DMRB (Design Manual for Roads and Bridges) standards with a design speed of 40mph. It includes a 3m wide shared cycle/footway on the northern side of the new road.
- Whilst the design speed is set to the standards within DMRB it is suggested that with a dual carriageway of this length other than at tidal rush hour times speeds are highly likely to be in excess of the design speed indicated. Without measures such as a signalised junction into the new developments drivers will have a dual carriageway with good visibility in which they will be able to travel at much higher speeds than intended by the designers.
- The link road between the A41 and the A413 was designed with a 50mph speed limit and it was clear that vehicle speeds were highly likely to be in excess of that due to the nature and layout, as a result locations were identified to provide positions for mobile speed enforcement vans to operate with good sight lines for traffic in both directions. Ideally the SEALR would be self-enforcing in terms of the speeds for vehicles but it is suggested that with having experience of the previous link road this is not going to be the case.
- At this time it is requested that some provision is made to accommodate the speed enforcement vans within the infrastructure of this road so there is some deterrent strategy for vehicles that are likely to exceed the design speed and posted limit on this proposed link road.'

Network Rail – (June 2020) Network Rail has the following comments.

(1) Network Rail has been in discussion with Bucks council and these are ongoing regarding the Heads of Terms.

(2) Network Rail's Asset Protection team will need to agree design and risk assessment and method statements; the scheme is to be managed via Network Rail Asset Protection.

(3) The bridge is in close proximity to Stoke Mandeville No.2 Level Crossing.

- Will the construction of the bridge have any adverse impact on the sighting at the level crossing.
- Will the noise of the construction works have any adverse impact on a user's ability to hear the whistle board that is located 400m from the level crossing.
- Once the bridge is constructed will the road noise have any adverse impact on a user's ability to hear the whistle board that is located 400m from the level crossing.
- Once the bridge is constructed will the structure have any adverse impact on a user's ability to hear the whistle board that is located 400m from the level crossing.

The whistle board on the up line in the Aylesbury direction provides mitigation for the insufficient sighting distance in this direction and NR need to fully understand the potential implications the proposal may have, at present.

Network Rail believes that the promotor and council must include consideration of the impact of the proposal on the level crossing as part of the planning application process. This duty falls under

Schedule 4 (j) of the Town & Country Planning (Development Management Procedure) (England) Order 2015, which states that the network operator (Network Rail) should be consulted on any proposal for: *“Development which is likely to result in a material increase in the volume or a material change in the character of traffic using a level crossing over the railway”* The NPPF underpins this requirement stating: *“Considering Development Proposals: 108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: b) safe and suitable access to the site can be achieved for all users; 110. Within this context, applications for development should: c) create places that are safe, secure...which minimise the scope for conflicts between pedestrians, cyclists and vehicles.”*

Environment Agency – No objections.

Aylesbury Garden Town - Aylesbury was given Garden Town status in 2017. Since then the Aylesbury Garden Town (AGT) project team have been developing a Masterplan setting out way the town will evolve over the next few decades. The AGT team has consulted residents and local businesses, as well as stakeholders, community groups and partners, and the feedback has been used to shape the Masterplan.

The Masterplan expands on the published 2050 Vision for Aylesbury Garden Town and explains in more detail how we propose to create an Aylesbury that is designed for everyone. This town wide Masterplan has inclusion and accessibility at its heart and proposes a wide range of both small and large projects and initiatives that will help make Aylesbury a greener and more prosperous place where everyone can enjoy a high quality of life. The Masterplan is due to be adopted at Full Council in the summer 2020, and once adopted by Buckinghamshire Council, the Masterplan will carry weight as a material consideration for future decision making and plan making. At the time of writing this response, the Masterplan has been approved by Cabinet.

The master planning process has identified 8 key projects which have the potential to be truly transformative in delivering the objectives of the Vision and are to be prioritised for delivery and investment. The Gardenway is one of these key projects. Encircling Aylesbury, the Gardenway will deliver an orbital route of fully connected green and blue infrastructure linked to local parks, woodlands, play grounds, community gardens, natural areas, waterways and heritage sites. It aims to have a positive and lasting impact on the quality of life of Aylesbury’s residents encouraging play, active lifestyles, food growing and outdoor leisure as well as being a haven for wildlife. It is intended to be built on a stewardship model, successfully delivered in a number of garden town communities across England, engaging residents in the management of the Gardenway.

AGT Masterplan Context and Objectives - The Masterplan includes a number of targets which push for higher standards in key areas:

- 50% of land to become new public green infrastructure in new garden communities;
- Delivery of biodiversity net gains, rising to a net gain of 20% in the longer term within new garden communities;
- By 2050 at least 50% of trips originating in the Garden Town will be made by sustainable modes;
- The Garden Town will contribute to the national and local greenhouse gas emission reduction targets.

Chapter 7 of the AGT Masterplan discusses the aspirations for a connected, inclusive and sustainable transport and movement network in Aylesbury. The objectives for ‘Aylesbury on the move’ include the provision of a connected town-wide network of active travel routes, to ensure that Aylesbury will be an exemplar of inclusive transport.

With regard to the outer link roads, identified as part of the Aylesbury Transport Strategy, the AGT Masterplan recognises that they are intended to fulfil a number of strategic transport functions:

- Interurban roads with potential inclusions in the strategic Major Road Network (subject to further assessment by the Department for Transport);
- Reducing the amount of through traffic in the town centre by providing an alternative, direct orbital route around town;
- Provide sufficient road capacity and connectivity into key areas of development around Aylesbury, to support planning approval for these growth areas.

The AGT Masterplan recognises the role of the outer link roads in achieving some of the Garden Town objectives, including removing through-traffic from the town centre: *The orbital link roads will have a positive function on other highways in Aylesbury. By reducing the level of traffic on these roads, the link roads will enable radial roads and ring roads to reduce their role in traffic movement and adjust more towards street-based 'place' functions, for pedestrians and cyclists. The aspirational sections of the link road should be delivered as a priority, to enable a full bypass for through traffic. Feasibility studies where routes have not been clearly identified should be completed to identify the most appropriate routing and identify opportunities for including high-quality, segregated footways and cycleways. These should seek to minimise the impact of the highway on green infrastructure and consider associated development opportunities."*

The AGT Masterplan also sets out design aspirations for the outer link roads, including the SEALR: *"The link roads will operate as 40mph roads and are being designed either as dual carriageways from the outset or with the provision to safeguard for dual carriageways. This is in anticipation of growth within Aylesbury and in the surrounding region. While these roads have a predominantly 'movement' function and would sit as 'major interurban roads'... they will have an effect on the quality of 'place' in their vicinity. Plans for the roads will therefore consider local context in the design including existing landscapes and townscape, safety of pedestrians and cyclists, and proposed development sites, so as to minimise negative impacts and create a positive relationship between the road and the surrounding area as far as reasonably possible and incorporate comprehensive landscaping wherever possible to soften the visual impact of the highways, support biodiversity and help mitigate air quality impacts."*

The Gardenway - The ambition to create a linear park of connected green spaces surrounding Aylesbury was established in the Buckinghamshire GI Strategy, 2009. The masterplan refines the original concept and identifies an indicative route for the orbital park called the 'Gardenway' which is related closely to the urban area and proposed major development sites, and reflects the alignment of HS2.

The Gardenway will deliver a fully connected green and blue infrastructure corridor which encircles the town. It will connect local parks, woodlands, play grounds, community gardens, natural areas, waterways and heritage sites and new local green spaces which provide points of interest along the route. A network of secondary Greenway routes connected to the Gardenway is identified. These connect the Gardenway to the town centre, the wider countryside and surrounding villages and form part of the proposed town-wide walking and cycling network. The illustrative route for the Gardenway, uses sections of the existing Round Aylesbury footpath and existing public green spaces where possible.

The AGT Masterplan states that wherever possible, the Gardenway should be routed to avoid running immediately alongside the Link Road (where increased levels of noise will be apparent), but instead take advantage of existing green and blue assets.

The AGT team welcomes the opportunity to comment on the SEALR planning application. AGT supports the planning application, and note that it aligns with the wider objectives of the AGT Masterplan to remove through-traffic from the town centre. In addition, AGT supports the intention to include provision for pedestrians and cyclists as part of the scheme.

The AGT team would encourage consideration of how the scheme can maximise the benefits for nonmotorised users, in particular how the proposed cycleway / footways can minimise conflict

between cyclists, pedestrians and other non-motorised users. Shared space cycleway / footways can often reduce the attractiveness of such routes, and therefore may not lead to the desired uptake in cycling or walking. Furthermore, in keeping with the theme of inclusivity as set out within the AGT Masterplan, shared spaces may present issues for users with impaired mobility, and we would encourage full consideration of how the scheme can cater for all user groups. As detailed in the illustrative drawing for the Gardenway (see Figure 1 above), the indicative alignment for the Gardenway runs along a stretch of the SEALR before veering off towards the proposed new developments in Stoke Mandeville. Although the Gardenway illustrative drawing and route is indicative in its nature, and the timeline for scheme development is likely to follow on from that of the SEALR, due to the constraint of crossing the Aylesbury to London railway line, it is possible that there will be a desire to route a section of the Gardenway along the footway / cycleway proposed as part of the SEALR, subject to existing constraints.

If the feasibility and outline design study for the Gardenway, planned to commence in the autumn of 2020, determine that the optimal route for the Gardenway is along the SEALR, the AGT team would welcome the opportunity to collaborate during the detailed design of the SEALR to explore opportunities for the two schemes to be integrated. The AGT team would welcome an opportunity to input with regards to appropriate signage, wayfinding and other relevant features such as landscaping, which will ensure that this section of the cycleway is coherent with the rest of the Gardenway. Likewise, at either end of the cycleway, AGT would welcome an opportunity to input into the proposed signalised crossings to ensure that they are coherent with the design strategy for the Gardenway, once this has been completed.

Natural England - Natural England has no comments to make on this application. Natural England has not assessed this application for impacts on protected species. Natural England has published Standing Advice which you can use to assess impacts on protected species or you may wish to consult your own ecology services for advice. Natural England and the Forestry Commission have also published standing advice on ancient woodland and veteran trees which you can use to assess any impacts on ancient woodland. The lack of comment from Natural England does not imply that there are no impacts on the natural environment, but only that the application is not likely to result in significant impacts on statutory designated nature conservation sites or landscapes. It is for the local planning authority to determine whether or not this application is consistent with national and local policies on the natural environment. Other bodies and individuals may be able to provide information and advice on the environmental value of this site and the impacts of the proposal to assist the decision making process. LPAs should obtain specialist ecological or other environmental advice when determining the environmental impacts of development and it is recommended referring to our SSSI Impact Risk Zones (available on Magic and as a downloadable dataset) prior to consultation with Natural England.

Health and Safety Executive - The proposed development site does not currently lie within the consultation distance (CD) of a major hazard site or major accident hazard pipeline; therefore at present HSE does not need to be consulted on any developments on this site.

Chilterns Conservation Board - A number of detailed Chilterns AONB Management Plan policies are relevant to this application:

DP4 In the setting of the AONB, take full account of whether proposals harm the AONB. For example, development of land visible in panoramic views from the Chilterns escarpment, or which generates traffic in or travelling across the AONB, or which increases water abstraction from the chalk aquifer, thereby reducing flow in chalk streams.

DP8 Keep skies dark at night by only using light where and when needed. All new lighting should be the minimum required and meet or exceed guidance for intrinsically dark zones. Avoid architectural designs that spill light out of large areas of glazing.

DP14 Avoid new or upgraded infrastructure (roads, railways, airports, pylons, masts etc.) which harm the AONB landscape, nature, air quality, tranquillity or the visitor experience. Fully assess impacts on the AONB, including increased recreation pressure, traffic, overflying and severance of ecological connectivity in the AONB. Avoid, mitigate and compensate to achieve a net gain for the AONB.

DP15 Seek opportunities to remove or replace existing inappropriate external lighting to restore dark skies at night.

CCB Summary - The Chilterns AONB is between 4.2 and 4.7km from the application area. Any assessment here must be based on the Landscape Institutes' Guidance and this methodology is applied appropriately in Chapter 7 (landscape) of the Environmental Impact Assessment (EIA 7.3.4). CCB accepts the rationale behind the applicant's assessment of views from Coombe Hill (EIA 7.3.19). This assessment makes reference to key views identified in the AONB Management Plan (EIA 7.3.30). Panoramic views from and across the escarpment constitutes a special quality (in the 2019-2024 Management Plan this is set out at page 10 on 'the significance of the Chilterns'). CCB supports the completion of a cumulative assessment of impacts (EIA 7.3.39) and CCB has produced its own Position Statements on the Cumulative Impact of Development (2017) and the impact of development upon the settings of the AONB (2011). The cumulative work here (EIA 7.3.39) includes planning permissions in proximity of the new road. It does not include the entirety of the road programme as envisaged by the VALP, when adopted, and as supported by the Aylesbury Transport Strategy. It has to confine itself to this portion of that greater spatial ambition. Looking at the longer term cumulative impacts CCB would ask that weight is given here to the longer term agglomeration of impacts, especially lighting. The EIA (7.3.39) accepts that impacts arise from sky glow, glare and light spillage.

CCB would seek maximum mitigation of lighting impacts and design innovations to avoid top-lit columnar lighting. The lighting assessment (at its 3.2) confirms 'higher levels of illumination' at roundabouts and lighting columns at 10m and 12m height on verges and at the two roundabouts, respectively. Planning weight should be given to the cumulative 'roll-out' of this design thinking across the entire outer Aylesbury road, as proposed in the VALP / Aylesbury Transport Strategy. From Coombe Hill and other elevated locations (potentially Wendover Woods and Pulpit Hill) such an impact would affect the panoramic views, accepting the distances involved. The EIA reports the new road 'barely discernible' from Coombe Hill. While it is not sought to contest that conclusion, the cumulative impact of 10m/12m top lit columnar lighting will be far greater upon completion of the anticipated outer road to the south and south-east of Aylesbury. CCB promotes that any lighting details are the subject of planning condition and that the LPA makes the point, at the decision making stage now, that a low impact design is required. The submitted details in the lighting assessment are fairly traditional and not low impact, it is suggested.

We note that the Design Manual for Roads and Bridges does not strictly apply to a 40mph road and thus adds further support to the adoption of non-traditional lighting treatment.

On bio-diversity net gain, these objectives to exceed DEFRA targets are laudable. Looking at the wider connectivity issues here (consistent with the draft VALP policy NE 2 (a), albeit still in draft) CCB promote the maximum level achievable within the red line area. As with lighting, this joined up approach or rather the establishment of a model design approach should be promoted so that subsequent additions cumulatively promote bio-diversity connectivity.

Strategic Access Officer - Footpath 2 Stoke Mandeville Parish SMA/2/1 passes generally south-west to north-east connecting Lower Road with Wendover Road. It also forms part of the 'Round

Aylesbury Walk' promoted route, and is in the vicinity of the proposed alignment for the Aylesbury Garden Way. The footpath also crosses the Aylesbury to London railway line where walkers have to cross the tracks 'at grade' in order to make their onward journey. Footpath 3 Stoke Mandeville Parish (SMA/3/2) passes generally south-east to north-west, parallel with Lower Road and connects Stoke Mandeville with Aylesbury, though more specifically, with the grounds of Stoke Mandeville Hospital.

In the wider context, a walking and cycling route is planned linking Stoke Mandeville Stadium and Stoke Mandeville train station (pink dashed line on Plan 2). The aim is to complement the rehabilitation of spinal injury patients' by providing a disabled accessible route into the countryside via the Garden Way and onto Stoke Mandeville village and train station. In addition, it combines as a sustainable transport route into the AGT-1 housing areas and possible green infrastructure provision.

North-west to south-east movements - Movements by foot and cycle are provided alongside Lower Road (Jetway cycle route) and Wendover Road (Amberway cycle route), as well as the proposed cycle route alongside and west of the railway line between Stoke Mandeville Stadium and Stoke Mandeville train station. Footpath SMA/3/2 runs in the same direction and is directly affected by the new link road. Road safety requirements preclude provision of a crossing on or close to the existing alignment of Footpath SMA/3/2 so the applicant proposes to divert pedestrians to a controlled crossing on the eastern arm of the new Lower Road roundabout via the proposed 3m cycleway (southern side) and 3m cycleway (northern side). This is satisfactory. It is understood that the applicant spoke with the developer controlling land north and south of the link road to establish desire-line diversions to avoid right-angle bends at the link road and that this was possible on the approach from the north, but not from the south. Nevertheless, in the wider context, it is assumed 'on street' routes will eventually be available for walkers travelling north-west towards the SEALR through the new residential development in the parcel of land immediately south of the SEALR and east of Lower Road, along which a desire line alternative can follow. It will be for the AGT1 design process to secure pedestrian and cycling permeability from those streets onto Lower Road (Jetway cycle route) and the SEALR cycleway close to the roundabout's eastern arm crossing.

South-west to north-east movements - The applicant originally proposed a 2m footway (southern side) and 3m cycleway (northern side), but this has been improved to provide a 3m cycleway both sides. This is welcome as both will complement the existing roadside cycleway network along Lower Road and Wendover Road.

Links to the Stoke Mandeville Stadium route - The proposed positioning of the railway bridge abutments enables provision for the proposed Stoke Mandeville Stadium route to pass underneath. Additionally, there are surfaced, 3m-wide maintenance tracks located between the Stoke Mandeville cycle route onto the link road cycleway (yellow highlighting on Plan 3). These can double-up as publically accessible walking and cycling routes, but can also provide public access to and from the proposed green infrastructure within new AGT1 housing areas.

The strategic design process for AGT1 can seek to secure more direct access to and from the housing areas as the design evolves. Moreover, it is understood that most, if not all, of the area up to the red edge flanking the SEALR (the embankments and surrounding land), are to be dedicated as public highway land, which allows a choice of routes to be provided along the embankments at appropriate desire-line points into AGT1 housing areas. Steps can be provided during construction directly up to the SEALR cycleway at points close to the bridge structure to allow convenient access from south-west and south-eastern AGT1 areas. Disabled accessible provision can be made further east and west as the embankments disappear and the ground flattens. The north eastern parcel of land between SEALR and the built-up area of Aylesbury becomes public open space.

At-grade railway crossing - Network Rail initially had concerns regarding the safety of pedestrians crossing the railway. Further work was undertaken by the applicant in this regard and evidence provided to indicate that users would not be distracted by moving traffic movements when they were supposed to be looking left and right for trains coming. Safety would not be compromised. Moreover, evidence was provided that the bridge abutments didn't impact on pedestrian sight lines looking north from the footpath crossing. There is no evidence therefore to support the closing of this crossing.

Summary - Content with the proposals for the provision of pedestrians crossing the SEALR to make their onward connections along the rights of way network; arrangements for a footway / cycleway on north and south sides of the new road complement existing walking and cycling networks; the provision of maintenance access tracks within areas dedicated as 'highway maintained at public expense' allows future connectivity for public walking and cycling routes onto the proposed Stoke Mandeville Hospital to Stoke Mandeville train station walking and cycling route from the SEALR; provision of areas south of the SEALR as highway land allows for a choice of future walking and cycling links from the SEALR footway / cycleway into new housing areas, as the AGT1 design evolves. Request an informative regarding keeping open public footpaths unless legally stopped up or diverted.

Representations:

164 representations have been received objecting to the development on the following grounds:

Transport

- No consultation with residents regarding left out left in proposal for Eastcote Road. Would lead to increased traffic through Elm Farm estate, increased queues
- Would prefer mini roundabout or traffic lights at Eastcote Road
- No justification for size of Wendover Road roundabout
- Properties at western end have new access/service road, those at eastern end should too
- Cambourne Avenue roundabout should be increased in size to allow more traffic to use it
- Impact on local businesses not being able to turn right out of Eastcote Road, delays
- Should be a roundabout at Eastcote Road/Wendover Road
- How will future intention to change roundabout at Wendover Road/Cambourne Avenue to traffic lights help, presumably no U turn at planned traffic lights?
- How is dual carriageway justified when previously a single carriageway was appropriate, over sized for its purpose, other link roads are single carriageways, no explanation given
- Will be a hotspot for speeding and accidents, will become a rat run
- Whether the traffic goes via Wendover Road or Lower Road it will still end up at the gyratory
- Additional traffic from west to east from the High Wycombe direction would only be a very small percentage of the overall volume
- Further housing on this side of Aylesbury will add to congestion
- Lead to unacceptable increase in traffic volume, will just move the problem
- Will encourage car use
- SEALR will disrupt traffic on Wendover Road
- Until the Council build the north-south relief road the traffic will continue to bottleneck at the gyratory
- Doesn't take account of additional traffic coming from Wendover Bypass
- No evidence that the link road would reduce traffic congestion and will not solve traffic problems
- Link road between Aston Clinton road and Wendover would enable traffic to avoid town and lessen impacts
- Change of working habits, less movement of people for work, working from home mean development not justified
- Concern about new cul de sac/slip road to access property which will be more dangerous

- Monitor and manage shouldn't be relied upon, need to know all of impacts
- Will the speed limit be kept at 40mph? Design will encourage speeding
- Models have not included impact of school runs
- Need long term solution not small link road
- Speed limit on SEALR should be 30mph
- Should take care of current roads before building new ones
- Proposed noise barrier and planter verge would affect visibility to County Farm Cottages
- Insufficient time to give clear indication of intent to leave carriageway and enter County Farm Cottages leading to accidents
- Realignment of carriageway with County Farm Cottage property reduces length in which a vehicle may wait out of the flow of traffic which would prevent the erection of gates to reduce noise and improve safety
- Insufficient width of footpath between A423 and County Farm Cottages
- Road is premature without Hampden Fields being approved
- Alternatives considered and discounted when they are better
- Modelling underestimates capacity
- No mention made of Annual Average Daily Traffic (AADT) in transport assessments, brings into question the overall assessments
- Shouldn't western roundabout be enlarged to future proof it?
- Need a plan to show how all of the major projects around Aylesbury are going to be managed so that major traffic chaos does not result
- SEALR will no solve north-south congestion
- Risk of gridlock between Bedgrove and SEALR East roundabouts not explained
- Potential to give false picture of traffic flows in real life scenarios
- Inconsistent statistical data given in transport assessment
- Monitor and manage approach suggests outcomes not known

Rights of way

- Adverse impact on PRow
- Walkers will not want to use rights of way with SEALR
- Walking route will become suburban
- Cycle path should be separate from road
- Open Space Society object because they fear it will lead to the closure of the level crossing, an important route for walkers, alternatives would be significantly longer and less pleasant. Users of the Round Aylesbury Walk would no longer be able to use route.
- Would be better to incorporate a footpath/cycleway under the eastern side of bridge to strengthen links to train station
- There should be ramped connections down to the new footpaths/cycle ways under the railway
- New connections should enable level crossing to be closed
- The SEALR design should provide for two service crossings at appropriate points between Lower Road and the rail line
- Details of provision for pedestrian/cycle access to SEAL at the bridge embankments should be provided

Landscape

- Harm to landscape, eyesore
- Should have native planting
- Should have evergreen planting so maintained in winter
- Planting will take years to establish and provide mitigation
- Conflicts with Garden Town status and contrary to Garden Town Masterplan
- Road should be set behind a bund
- Other options had lower bridge height and therefore less visual impact
- Ugly urbanisation
- Height of bridge would have unacceptable visual impact, other bridges over railway are lower

- Roundabout on Wendover Road is too large
- Traffic lights instead of Wendover Road roundabout would require less land take
- Traffic lights should be used instead of Wendover Road roundabout
- Loss of farmland
- Loss of greenfield site
- Would result in coalescence to Aylesbury, Stoke Mandeville and Weston Turville
- Overhead wires should be routed underground
- If bridge position moved south the land is lower and the bridge could be lower
- SEALR landscaping scheme should have regard to the AGT1 allocation and the delivery of the overbridge as part of the Land Improvement Holdings development
- BC should adopt and maintain all land required for landscaping and drainage as part of the SEALR mitigation.

Open space

- Open space is protected by condition and by covenant, developers aware of this from the start
- Section 19 inappropriate for use
- Loss of currently quiet recreation facility

Flooding, drainage and climate change

- Would disrupt natural drainage
- Will increase risk of flooding to dwellings
- Lack of sufficient detail of flood mitigation
- Concerned about potential of bank erosion and request retaining wall to property
- Bedgrove Brook already regularly reaches capacity and additional water flows will increase flood risk
- Harm to climate change
- Field to the east of the eastern roundabout is often flooded with excess flow from the sewer discharging across it during heavy flooding, not convinced that this has been included in the modelling
- Flooding on third party land

Residential impact

- Excessive long term noise and from construction, insufficient mitigation
- The road should have motorway style noise reduction barriers
- Noise barrier should be sympathetic
- Concerns over vibration, insufficient mitigation
- At the mid-point from Wendover Road and the railway line the road will be approx bedroom window height
- Light pollution
- Adverse impact on air quality, including during construction. Will not reduce air pollution on Lower Road, health objections
- Need clarification on set up time activities and how much night time working is expected
- Wind impact on air quality not assessed
- Loss of establish open space unacceptable
- Proposed open space would be alongside dual carriageway and not acceptable whatever the size
- Concerned about width of pavement for eastern roundabout being too narrow
- Council do not have rights to the land they require
- Open space would not provide any sort of scenic barrier for the road
- Other options would not require loss of existing open space
- Road should be moved further away from dwellings
- It has not been demonstrated that alternative designs would not be possible, revising the road's alignment, location and junction design
- Tunnel option is preferred design, similar costs
- Contrary to Human Rights

- Why has there been no consultation on the change from routes which were too expensive and rejected?
- Costs have not been completed for other options.
- In a press release for Hampden Fields the Council confirmed that Hampden Fields will contribute to the SEALR but the Council have stated that the SEALR will go ahead regardless of the Hampden Field project
- Harm to outlook
- Too close to existing and planned residential development
- Finished road is higher than properties
- Proposed culverts will attract crime and anti-social behaviour
- No evidence and unsubstantiated comments made about mitigation for noise, dust, vibration
- Impact of closing Nash Lee Road not properly considered in transport modelling
- Noise attenuation and air quality proposals must have regard to future residential receptors at D-AGT1. The SEALR GA plans should be amended to include extended acoustic barriers and a condition included to require detailed design to specifically address residential receptors at D-AGT1.

Wildlife

- Impact on wildlife should be kept to a minimum
- Loss of habitats, loss of well established hedgerows and mature trees
- Adverse impacts on ecosystems
- Harm to variety of wildlife
- Question ability to achieve biodiversity net gain without CPO land

Policy, funding, consultation

- VALP not approved, so road premature
- The SEALR bisects land forming part of allocation AGT1 presents challenges to this coming forward
- Contrary to development plan policies
- Need to follow legislative framework
- Would not accord with NPPF, only economic role, not social or environmental roles
- Where will the funding come from if Hampden Fields does not go ahead; applications are linked
- Single carriageway 20% cheaper
- Local MP Rob Butler states that Councils should not plan development on AONB, Green areas or swallow up local villages
- Concern about consultation process during Covid, insufficient time to comment
- Publicity not sufficient, residents should have been contacted by Council
- Huge amount of application papers to consider
- Benefits do not justify costs
- Costs and local disruption will work against the local recovery from covid
- Potential high costs of diversions to overhead electricity cables will incur additional costs, could be offset against other options, including tunnel. Also other bridges along railway can increase in height to allow for electrification pylons under them
- CPO is attempting to include purchase of land ready for Hampden Field stage of the orbital road which is beyond the requirements of SEALR and is conflict of interest
- CPO land take is excessive
- Sub optimal solution being used
- Conflicts with commitment of government and council to get to zero net carbon by 2050
- Enormous waste of money
- SEALR has been developed in isolation from AGT1, better permeability could be achieved
- The application should include sensitivity testing to reflect the appropriate and realistic yield of around 1,600 units on the D-AGT1 allocation.
- The proposed diversion of the UKPN power line along the south of the SEALR through LIH land is not acceptable and any such diversion must be discussed and agreed with LIH.

- Lack of adequate impact on AGT1 allocation could mean that the required 1000 dwellings could not be achieved
- DAS not updated

11 representations supporting the development have been received making the following comments:

- In favour of link road but not more houses
- Link road would be of benefit overall
- Would benefit the emergency services and ease traffic flow around the town
- Link road would make it easier to join Lower Road
- Would reduce congestion on Lower Road
- Realignment of Lower Road would improve visibility
- Link road would join up with others proposed and is in need for the Garden way

APPENDIX B: Highway comments



Directorate for Planning Growth & Sustainability

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Development Management
(Aylesbury Area)
Planning, Growth & Sustainability
Buckinghamshire Council

11th January 2021

F.A.O. Sue Pilcher

Dear Sue

Application Number: CC/0015/20
Proposal: New dual carriageway link road including: roundabout junction at B4443 Lower Road, roundabout junction at A413 Wendover Road, railway bridge, footway/cycleways, noise attenuation barrier, street lighting, earthworks and landscaping between B4443 Lower Road and A413
Location: Land Between The A413 Wendover Road and the B4443 Lower Road in the Parishes of Stoke Mandeville, Weston Turville and Aylesbury.

Thank you for your request for comments on the South East Aylesbury Link Road (SEALR) Transport Assessment Addendum which was submitted on the 3rd December 2020.

Background

The Vale of Aylesbury Local Plan (VALP) has been developed and a draft for submission was issued for consultation in late 2017 and submitted to the Secretary of

State in early 2018. An Examination in Public (EiP) was held in July 2018 and the Inspector's Interim Findings were published in August 2018. Following the publication of the Inspector's Interim Findings, the Council has worked on the required necessary modifications to make the plan sound. The modifications were then subject to public consultation which closed in December 2019. This second stage of Main modifications has been presented to the Inspector. These modifications, along with other representations, are currently under review. The draft VALP identifies Aylesbury as a major growth location for approximately 8,000 new homes.

The need for the proposed scheme has arisen through the development of High Speed Two (HS2). The alignment of HS2 passes Aylesbury to the south west, and in doing so will sever the A4010 Risborough Road south of Stoke Mandeville.

As part of the proposals for HS2, a new link road will be delivered to divert the A4010 around the west of Stoke Mandeville, connecting with the B4443 Lower Road further north, via a new roundabout. This scheme is referred to as the Stoke Mandeville Relief Road (SMRR). Traffic modelling has indicated that this re-alignment will increase congestion at the A413 gyratory (B4443 / A413 junction Stoke Road / Wendover Road / Walton Street) within Aylesbury town centre, leading to increased traffic, queuing and delays. Increased traffic on the B4443 arising from the proposed SMRR is also likely to result in worsening air quality issues at the Stoke Road gyratory which is a designated Air Quality Management Area (AQMA), due to high traffic levels and emissions related to idling vehicle engines and queueing.

To address this, the proposed South East Aylesbury Link Road (SEALR) scheme will provide a new road to connect the B4443 Lower Road with the A413 Wendover Road. The proposed scheme programme anticipates opening at the same time as the SMRR, to address the congestion issues.

The proposed scheme also contributes to a long-term vision to deliver an orbital route around Aylesbury, together with proposed link roads that will be delivered through large housing projects to the south east of Aylesbury, which are allocated in the emerging VALP.

A planning application for SEALR and an accompanying Transport Assessment (TA) was submitted in

April 2020. Buckinghamshire Council (BC) issued a highways response on the TA on the 10th June 2020. This highways response needs to be read in conjunction with the response issued on the 10th June 2020.

Updated Transport Assessment Addendum

The TA Addendum (TAA) provides updated junction assessments following changes to the design of SEALR and the roundabout junctions as well as revised traffic flows for 2036.

The transport effects of SEALR have been assessed using the updated Aylesbury Transport Model (ATM). The ATM is a VISUM based highway model that includes weekday AM Peak, inter-peak and PM Peak period data. The Future Forecast Year is 2036 and has been developed to account for committed developments and infrastructure coming forwards in the Aylesbury area and growth outlined within the VALP.

The ATM has been updated since the SEALR TA was submitted in April 2020, to align growth assumptions with model runs associated with other strategic development site updates and to include an end of VALP assessment. The TAA submitted for this application has utilised these revised 2036 flows and updated the network impact assessments accordingly.

Previous Highway Comments.

Chapter 2 of the TAA deals with the modelling comments from the 10th June 2020 Buckinghamshire Council (BC) Response for each junction.

The section below addresses the TAA responses dealing with the BC comments from the June 2020 highways response. Detailed comments on the revised modelling are provided further down in this response.

- Junction 2: A41 / New Road

The previous highways response stated, *“this junction has a 5% increase in flows in the 2021A scenario, a junction capacity assessment should be undertaken.”*

The TAA response states *“In 2021(a), there are two arms with an increase over 5%, however these account for a difference of 15 trips on the New Road South arm and seven trips on the MDA North arm. Although the increases are greater than 5%, the difference in trips on those approaches are low and considered unlikely to impact on capacity at the junction. Furthermore, the overall flow difference at the junction is 4%, therefore it has not been considered necessary to undertake a capacity assessment for this assessment especially given that in future scenarios, the junction form will change.”*

It is accepted that the difference in movements is minimal and it is therefore concluded that an assessment for the 2021A scenario is not required. The 2021B and 2036 scenarios have been modelled and are discussed further down in this response.

- Junctions 2 & 3: A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane) / New Road

The previous BC response explained that the modelling of Junctions 2 and 3 should reflect the agreed Hampden Fields and Woodlands mitigation, including the Broughton Lane link.

The TAA modelling now reflects the agreed Hampden Fields and Woodlands mitigation. Comments on the modelling of this junction are provided further down in this response.

- Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

The previous BC response stated, *“Some of the flows are incorrect or omitted. This needs to be corrected”*.

This has now been corrected. It should also be noted that Hampden Fields and Woodlands are no longer proposing to improve this junction as its not required. In scenarios with the Hampden Fields and Woodlands developments included the existing layout has therefore now been used, which is correct.

- Junction 5: A41 Aston Clinton Road / Park Street / Tesco / Walton Street

The previous BC response stated that some of the flows are incorrect or omitted, which needs to be corrected.

The TAA explains that there was one HGV percentage which was stated as 3% rather than 2% and a rerun of the model showed that this did not change the results.

A review of the modelling revealed that the flows are now correct.

- Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road (Gyratory)

The BC Response stated *“The model for Junction 6 is similar, but not the same as the model agreed and used to test and assess the Hampden Fields development. This model needs to be identical to the Hampden Fields model or an explanation as to why the model is not consistent with the Hampden Fields model is required.”*

The TAA states *“The geometric data for the model has been reviewed and revised where necessary to accord with that shown in the Hampden Fields assessment. The model may still have discrepancies with that prepared for the Hampden Fields assessment as lane lengths and widths were not provided and therefore these have been derived by AECOM”*

Comments on the modelling of this junction are provided further down in this response.

- Junction 7: A413 Wendover Road / Camborne Avenue

BC previously commented that this junction should be modelled as a mini roundabout. The TAA explains that the junction was not modelled as a mini roundabout as it resulted in a warning in the software because the junction appears to have unbalanced flows and may behave like a priority junction and that the results should be treated with caution. A normal roundabout model was therefore used to ensure that the results were realistic.

This response is accepted. Comments on the modelling are provided further down in the response.

- Junction 11: B4443 Lower Road/Winterton Road/Stoke Mandeville Hospital

The BC Response stated *“The Hampden Fields model was run with lane simulation, whereas this model has not. To be consistent with the Hampden Fields analysis, it needs to be run with the lane simulation option as a sensitivity test.”*

The TAA has now presented the results of this network using lane simulation as requested. The results are discussed later in this response.

- Junction 14: A418 Oxford Road / Coldharbour Way

BC previously explained that the model geometry is similar, but not identical to that produced for the Transport Assessment for Land at South West Aylesbury. This junction needs to be re-modelled with the correct geometry.

The junction has been re-modelled with updated geometry. However, it should be noted that the applicant for the South West Aylesbury planning application will need to revisit the design of this junction as part of their application to respond to updated transport modelling. It is expected that a suitable design will be derived by them to accommodate all traffic demands given that it forms their primary site access junction. Notwithstanding this, the results of the modelling undertaken by the SEALR applicants is discussed later in this response.

- Junction 16: A413 Wendover Road/SEALR

BC previously commented that a linked ARCADY model should be used to determine the impact of the u-turning traffic at this junction.

This junction has undergone further design changes and has been re-modelled with a linked Arcady model. Comments on the modelling are provided further down in the response.

- Junction 17: A418/Eastern Link Road North

BC previously explained that we would like to see the junction modelled with a pedestrian phase every 3 cycles which is more likely to reflect the use of the pedestrian crossing.

A review of the modelling reveals that the junction has now been modelled with a pedestrian phase every 3 cycles and the results of the modelling are discussed later in this response.

- Junctions 18 & 19: ELRn North (Village) roundabout and ELRn South (Stocklake) roundabout

The previous BC response explained that junctions 18 and 19 needed to be re-modelled with pedestrian crossings.

The TAA explains that these junctions have now been modelled with zebra crossings which is considered acceptable.

- Junction 22: Southern Link Road / New Road

BC previously commented: *"an explanation of why this model differs from the agreed Woodlands and Hampden Fields models is required"*.

Updated design geometries were provided to the applicant and these have been used for the revised modelling which is discussed later in this response.

- Comments on Design

Chapter 2 of the TAA also discusses design comments from the 10th June 2020 BC Response.

Cul de sac servicing

Due to the new road alignment and location of the junction on Lower Road, dwellings 8 to 30 Lower Road will now be served by two cul de sacs that run parallel to the main carriageway. BC previously stated that a swept path analysis should be provided to demonstrate that a refuse vehicle can enter and exit the cul de sacs in a safe and convenient manner.

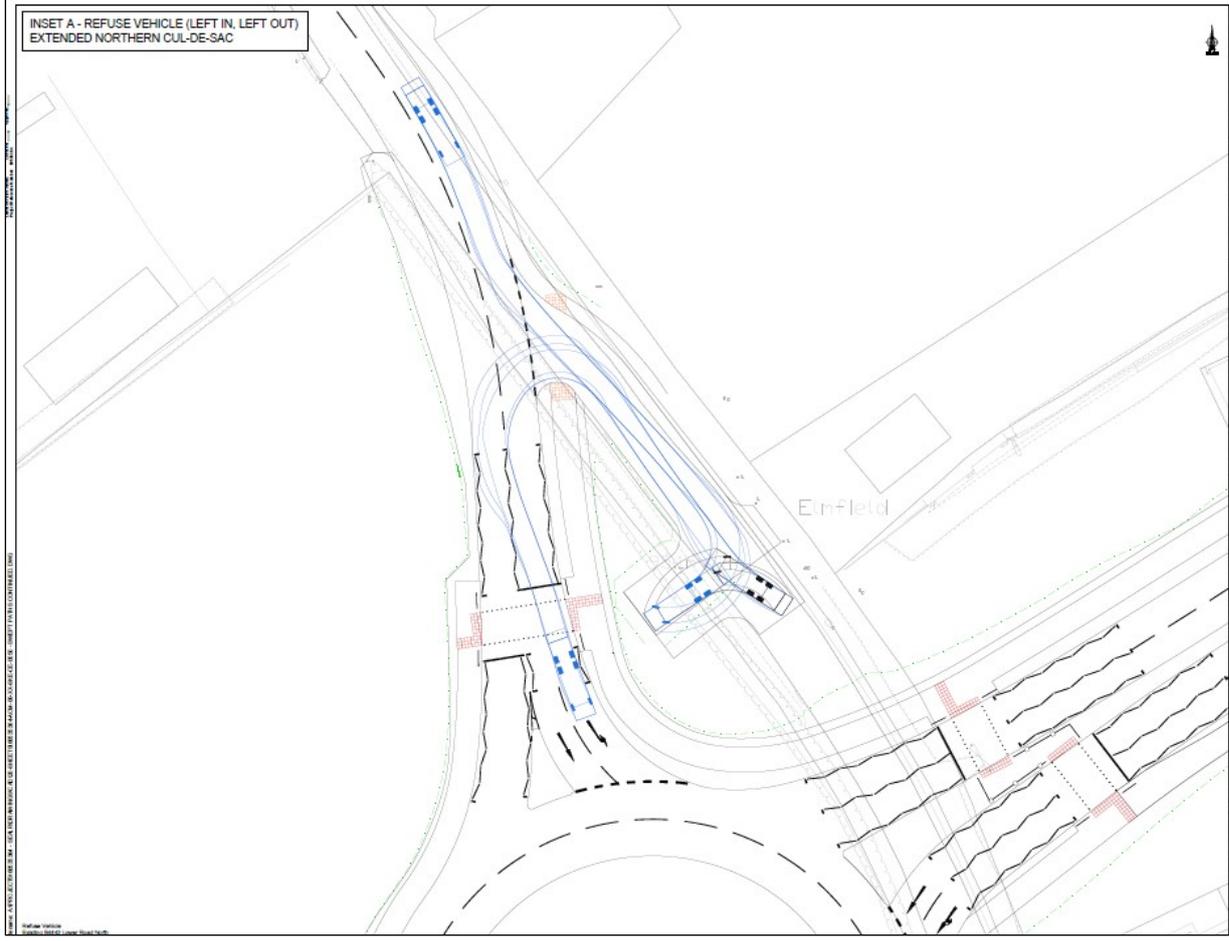
Appendix B of the TAA includes a swept path analysis of a large car and an 11.2m long refuse vehicle.

The swept path analysis demonstrates that a large car can turn in the turning heads of both cul de sacs.

An 11.2m refuse vehicle can access the southern cul de sac in forward gear, reverse within the cul de sac and egress the cul de sac in forward gear.

A separate drawing has also been submitted demonstrating that a 10m rigid vehicle can access the northern cul de sac, turn in the turning head, and egress the northern cul de sac in forward gear. BC requested a further amendment to this service road to expand the turning area along with additional swept path analysis of a 11.2m refuse vehicle. This supplementary information is shown on drawing 60535364-ACM-00-XX-SKE-CE-0053 reproduced below and is now considered acceptable on the basis that the servicing of the cul de sac by a vehicle of this size will be infrequent. Smaller vehicles such as cars can enter and exit with greater ease as shown in drawing 60535364-ACM-00-XX-SKE-CE-0050 below.

INSET A - REFUSE VEHICLE (LEFT IN, LEFT OUT)
EXTENDED NORTHERN CUL-DE-SAC



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PROJECT
SOUTH EAST
AYLESBURY LINK ROAD (SEALR)

COUNTY
BUCKINGHAMSHIRE
COUNCIL

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED
2. THIS DRAWING IS FOR INFORMATION ONLY AND DOES NOT REPRESENT A CONTRACT
3. HORIZONTAL SCALE ONLY APPLIES TO THE ROAD LAYOUT AND NOT TO THE LANDSCAPE
4. DIMENSIONS ARE TO THE TOP OF THE ROAD SURFACE UNLESS OTHERWISE STATED
5. INDICATIVE BOUNDARY AND ROAD MARKINGS ARE FOR INFORMATION ONLY AND DO NOT REPRESENT A CONTRACT
6. DIMENSION VEHICLE USED TO DRAW TO 1800 PARALLEL PARKING T 10

KEY

- VEHICLE DIMENSIONS
- VEHICLE MARKING
- 1800 PARALLEL PARKING T 10

DATE	DESCRIPTION	BY	CHKD
15/03/2024	ISSUE FOR PLANNING	J. SMITH	M. JONES
10/03/2024	REVISED	J. SMITH	M. JONES
05/03/2024	ISSUE FOR PLANNING	J. SMITH	M. JONES

FOR PLANNING

CONTRIBUTOR
AECOM

PROJECT TITLE
SOUTH EAST AYLESBURY LINK ROAD (SEALR) FROM THE HEAD OF THE ROAD TO THE HEAD OF THE ROAD

PROJECT NUMBER
AECOM/BUCKINGHAMSHIRE/2024/001

SCALE
1:1000



Stage 1 Road Safety Audit

BC previously stated in the highways response that the Stage 1 Road Safety Audit (RSA) revealed a number of issues including concerns regarding the straight alignment of the proposed link road, which may result in vehicles travelling at excessive speeds, concerns regarding existing accesses, excessive widths on the roundabout entry and exit lanes and lack of cycle facilities.

A Designers Response was therefore prepared by the applicants to address the issues raised in the RSA. We reviewed the Designers Response and included comments in the previous highways response and considered that all points were adequately addressed and that the remaining issues in the RSA would be considered at the detailed design stage, which is also explained in the Designers Response.

The TAA explains that to assist with safety and speed, space adjacent to the agricultural access has been made available for Police enforcement vehicles. This proposal is welcomed by BC.

Forward Visibility

The previous BC highways response explained that the Highway Authority would require confirmation on the level of forward visibility from Lower Road onto the SEALR roundabout that can be achieved once it has been maximised.

BC previously stated that *“The northern Lower Road arm includes a horizontal deflection approximately 60m north of the roundabout. This horizontal alignment includes a 90m radius and localised curve widening. We have concerns that this alignment is not in line with Table 2.10 of CD 109 Highway Link Design (DMRB) and we require a justification as to why there is a departure from DMRB standards.”* The updated design drawing includes forward visibility splays. The drawing shows that a 105m forward visibility splay can be achieved for vehicles exiting the roundabout. A second splay shows that the stop line for the roundabout can be seen from a distance of 127.8m away. The third splay shows that the pedestrian crossing is visible from a distance of 110m.

Table 2.10 of CD 109 Highway Link Design (DMRB) indicates that the desirable stopping sight distance for a design speed of 50kph is 70m which is the distance that is required at this location. The forward visibility splays on the northern arm of the junction therefore exceed the DMRB stopping site distance requirements and are therefore acceptable.

Design Changes

The proposed scheme will deliver a Link Road between the realigned A4010 junction with the B4443, and the A413 Wendover Road in the form of a two-lane dual carriageway.

A four arm roundabout connecting Lower Road (B4443), the Stoke Mandeville Relief Road and the

SEALR will represent the western extents of the scheme. This roundabout will feature an Inscribed Circle Diameter (ICD) of 69m and two circulatory lanes with two lane approaches on all arms. The roundabout and all approaches will be street lit. Pedestrian and cycle provision will be provided around the northern and eastern sides of the junction to tie in with existing facilities. Controlled crossing points will also be provided on the northern and eastern arms.

Minor changes to the northern arm’s geometric parameters have been made, which include changes to the entry widths and flare lengths, to increase capacity.

The link road will consist of a two lane dual carriageway and will be subject to a 40 mph speed limit.

The TAA explains that the applicant is in discussions about delivering this roundabout on behalf of HS2 as the proposed scheme connects into the eastern arm of the Stoke Mandeville A4010 Realignment scheme. As per the TA, the link road will then follow a south-westerly to north-easterly alignment and will consist of a two lane dual carriageway and be subject to a 40-mph speed limit along its extents. A shared three-metre-wide footway / cycleway will run along the northern side of the carriageway and now a threemetre-wide footway / cycleway will also run along the southern side in place of the two-metre footway previously proposed. No street lighting is proposed along the link, though illuminated solar studs will be provided along the footway/cycleway on the northern and southern sides of the carriageway.

A new bridge structure continues to be proposed across the London to Aylesbury railway line which will bisect the SEALR approximately mid-way along its length. Maintenance access will be provided on either side of the bridge.

With regards to the bridge the TAA states:

“The structure itself features three spans; one main span of 36.6m between centre lines of intermediate piers and two side spans to the west and east of the railway track. These side spans will be 25m and 20m respectively. The main span was developed to cross the entire Network Rail corridor and the west side span to provide space for a north-south ecology corridor to the west of the railway line. The east side span was developed to reduce potential settlement of the Network Rail corridor produced by constructing high embankments adjacent to the railway line. Adjacent to the bridge abutments space has been reserved for maintenance access and to facilitate the movement of pedestrians and cyclists. This will also continue to permit the future aspiration for a cycle link between Stoke Mandeville Village and Stoke Mandeville Hospital. “

The scheme will also incorporate passive provision for the future pedestrian and cycle connections to the footway/cycleway on the southern side of the road as part of future development connections and/or to facilitate the future closing of the level crossing.

The SEALR will, as set out in the TA, terminate at a roundabout junction in the east. This fourarm roundabout will connect Wendover Road (A413), the Southern Link Road and the SEALR (Drawing 60535364-ACM-00-XX-SKE-CE-0102-General Arrangement Rev G-0104 and 0103). This roundabout will feature an ICD of 81m and three circulatory lanes with three lane approaches on all arms to accommodate the traffic flows anticipated within the future forecast year of 2036. Changes to geometric parameters have been made to all arms to increase capacity further including the entry width and flare lengths. The roundabout and all approaches will have street lighting. Pedestrian and

cycle provision will be located around the northern and western arms of the junction to tie in with existing facilities. Pedestrian only facilities will continue to be provided around the eastern arm. Controlled crossing points will also continue to be provided on the northern, western and eastern arms.

We previously stated “We are aware that there have been discussions between the applicant and the promoters of the Hampden Fields site concerning the alignment of the road at the connection with the Southern Link Road at the junction with Wendover Road. Before finalising our review of this application, we will need to see evidence that any issues associated with the road alignment in this location have been adequately addressed.”

Taylor Wimpey on behalf of the Hampden Fields Consortium have confirmed in an email dated 5th January 2021 that the revised alignment as shown on drawing 60535364-ACM-00-XX-SKE-CE-0102 General Arrangement Rev G-0104 where it ties in with the SLR, is now acceptable. This matter is therefore resolved.

Traffic Impact Scenarios

The following strategic modelling Scenarios have been considered by the applicants:

Scenario	Committed Infrastructure	Committed Development
2021(a) Do Nothing	Stoke Mandeville A4010 Realignment Eastern Link Road (North) Stocklake Link Road (Rural)	Berryfields (1,901 dwellings) Aylesbury East (617 dwellings and 25,459sqm employment)
2021(a) Do Something	2021(a) Do Nothing plus SEALR	-
2021(b) Do Nothing	2021(a) Do Nothing plus: Eastern Link Road (South) Southern Link Road	2021(a) Do Nothing plus: Woodlands (74% of employment) Hampden Fields (60 dwellings) Berryfields (additional 125 dwellings) Aylesbury East (additional 175 dwellings)
2021(b) Do Something	2021(b) Do Nothing plus SEALR	-
2036 Do Nothing	2021(b) Do Nothing plus: A413/A418 Link Road	2021(b) Do Nothing plus: Broughton (Full Build) Aylesbury South West (Full Build) South of Aylesbury (Full Build) RAF Halton (Full Build) Woodlands (Full Build) Hampden Fields (Full Build) Berryfields (Full Build) Aylesbury East (Full Build)
2036 Do Something	2036 Do Nothing plus SEALR	-

The 2036 scenarios have now been updated in the Aylesbury Transport Model (ATM) to ensure that development and background growth assumptions are consistent across all live planning applications. A summary of the key committed developments and infrastructure included within the 2036 scenarios is provided in Table 7 of the TAA which is re-produced below.

Table 7. Summary of Scenarios and Infrastructure and Committed Developments

Scenario	Committed Infrastructure	Committed Development
2036 Do Nothing	Stoke Mandeville A4010 Realignment Eastern Link Road (North) Stocklake Link Road (Rural) Eastern Link Road (South) Southern Link Road A413/A418 Link Road	Broughton (Full Build) Aylesbury South West (Full Build) South of Aylesbury (Full Build) RAF Halton (Full Build) Woodlands (Full Build) Hampden Fields (Full Build) Berryfields (Full Build) Aylesbury East (Full Build)
2036 Do Something	2036 Do Nothing plus SEALR	(As above)

Junction Modelling

The junctions agreed for assessment in the updated modelling are those that were assessed in the original TA. These junctions are set out in Table 8 of the TAA which is reproduced below.

Table 8. Summary of Junctions to be Assessed

Number	Junction	2036
1	A41 Aston Clinton Road / Aylesbury Road	✓
2	A41 Aston Clinton Road / New Road	✓
3	A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane)	✓
4	A41 Aston Clinton Road / A4157 / King Edward Avenue	✓
5	A41 Aston Clinton Road / Park Street / Tesco / Walton Road	x
6	A413 Walton Street / A413 Wendover Road / Stoke Road	✓
7	A413 Wendover Road / Camborne Avenue	x
8	A413 Wendover Road / Silver Birch Way	x
9	A413 Wendover Road / A4010 Station Road	x
10	A4010 Station Road / B4443 Lower Road / A4010 Risborough Road	x
11	B4443 Lower Road / Winterton Drive / Stoke Mandeville Hospital	✓
12	B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue	✓
13	A148 Oxford Road / Ellen Road / Thame Road South	✓
14	A418 Oxford Road / Coldharbour Way	✓
15	B4443 Lower Road / Stoke Mandeville Relief Road / SEALR	✓
16	A413 Wendover Road / SEALR	✓
17	A418 / Eastern Link Road North	✓
18	Eastern Link Road North, North Roundabout	✓
19	Eastern Link Road North, South Roundabout	✓
20	Eastern Link Road South, North Roundabout	✓
21	Eastern Link Road South, South Roundabout	✓
22	Southern Link Road / New Road	✓
23	Southern Link Road / Marroway	✓
24	A413 / Eascote Rd	x

The results of the updated modelling of each junction are discussed further below.

- Junction 1: A41 / A41 Aston Clinton Road / Aylesbury Road

This junction is currently a roundabout and has been modelled as a roundabout for 2021 scenarios but for the 2036 assessment year the roundabout is proposed to be enlarged with additional approaches and signalised as part of the delivery of the Eastern Link Road South (ELRs) that will be delivered through the Woodlands development.

The TAA explains that the 2036 design of the A41 junction is being progressed through detailed design which takes into account the traffic assessed within this TAA. The A41 Aston Clinton Road / Aylesbury Road junction has been modelled using TRANSYT for the 2036 assessment year. The TRANSYT model has been revised since the TA was submitted, in line with the design evolution and is considered acceptable. Flows have been checked and are correct.

Table 9. Junction 1: A41 Aston Clinton Road / Aylesbury Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
Changes to junction layout				
	Max DoS	Max Q	Max DoS	Max Q
TA 2036 Do Nothing	72.86%	11.50	76.56%	14.21
TA 2036 Do Something	77.82%	13.88	75.36%	12.46
2036 Do Nothing	70.83%	10.12	84.46%	15.27
2036 Do Something	77.77%	12.89	85.87%	14.90

The results shown in Table 9 of the TAA demonstrate that the junction will operate within capacity in 2036 with the proposed scheme. The assessments have been checked and are found to be acceptable. No further mitigation is therefore required.

- Junction 2: A41/ New Road/ MDA and Junction 3: A41/ Bedgrove

Both of these junctions are signalised junctions located approximately 400 metres apart. Bedgrove / A41 is currently a staggered junction with Broughton Lane. A mitigation scheme is proposed as part of the Hampden Fields and Woodlands planning applications to divert Richmond Road to connect with Broughton Lane.

BC previously stated: “The modelling of Junctions 2 and 3 should reflect the agreed Hampden Fields and Woodlands mitigation, including the Broughton Lane link and should be the combined model with the New Road junction.”

Table 1 shows results of the analysis for 2021b. The TAA states that Junction 3 has been coded in accordance with the model in the Hampden Fields TA, but lane lengths and widths were not provided within the Hampden Fields TA therefore these have been assumed by AECOM. The model is largely consistent with the agreed HF model, with a slight change in the staging which is accepted. Flows have been checked and are correct.

Table 1. Junction 2 & 3 A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane) / New Road

Scenarios	Junction 2				Junction 3			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q
2021 (b) Do Nothing	68.4%	12.5	65.5%	25.5	65.7%	25.5	65.1%	21.3
2021 (b) Do Something	62.3%	11.0	55.2%	18.6	63.3%	22.7	60.1%	18.5

Table 1 above demonstrates that the proposed mitigated proposed layout will operate within capacity in 2021 with the SEALR.

Table 10 below includes summary results for the Junction in 2036 with the mitigation scheme. The link lengths and saturation flows are similar but not identical to those used in the HF model. Saturation is generally lower in this model which makes it robust and the model has therefore been accepted. The flows have been checked and are correct.

The results show an improvement in the operation of the junction with the SEALR in place.

- Junction 4: A41 / A4157/ King Edward Avenue

This is a staggered signalised junction. The model is the same as that produced for the HF assessment and is accepted. The flows have been checked and are correct.

Table 2 demonstrates that in the 2021(a) scenario without Hampden Fields and Woodlands (and ELRs) the SEALR increases the saturation. However, in the 2021 (b) scenario with Hampden Fields and Woodlands the SEALR significantly reduces saturation and queues.

In the 2021(a) scenario the junction would remain in capacity in the AM peak hour but there would be a slight worsening of DoS in the PM peak which is already over capacity. However, this scenario is unlikely to materialise as SEALR is likely to come forward alongside Hampden Fields and Woodlands. The results are therefore considered acceptable.

Table 2. Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	94.2%	35.3	88.7%	22.4
2021 (a) Do Nothing	79.6%	24.9	110.8%	78.1
2021 (a) Do Something	82.1%	29.6	118.6%	47.4
2021 (b) Do Nothing	83.2%	16.8	104.6%	57.3
2021 (b) Do Something	77.8%	20.8	96.0%	34.4

Table 12. Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	132.5%	205	157.7%	232.3
2036 Do Something	121.4%	142.3	149.9%	198.2

The results using the revised forecast flows illustrate that the implementation of SEALR in the 2036 Do Something scenario will provide an improvement in queueing and degree of saturation at the junction compared to the 2036 Do Nothing scenario. Mitigation measures are therefore not required.

- Junction 6: A413 Walton Street / Wendover Road / Stoke Road (Walton Street Gyratory)

This junction takes the form of a signalised gyratory. The model that was agreed with the Highway Authority in December 2020 has been used for both the 2021 and 2036 analyses. All flows have been checked and are correct.

Table 3 below demonstrates that SEALR provides an improvement at the junction in 2021.

Table 3. Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021 (a) Do Nothing	114.5%	91.0	102.6%	47.2
2021 (a) Do Something	112.9%	74.8	97.0%	29.4
2021 (b) Do Nothing	108.8%	69.8	97.9%	29.1
2021 (b) Do Something	101.6%	35.2	92.8%	19.6

The output file in the TAA Appendices includes an analysis using the old version of the model, however the results set out in Table 13 reflect the updated and agreed model.

Table 13 shows that, even though the 2036 Do Something scenario is above capacity, the implementation of the SEALR in the 2036 Do Something scenario will provide an improvement in queueing and delay at the gyratory compared to the 2036 Do Nothing scenario. The impact is therefore considered acceptable.

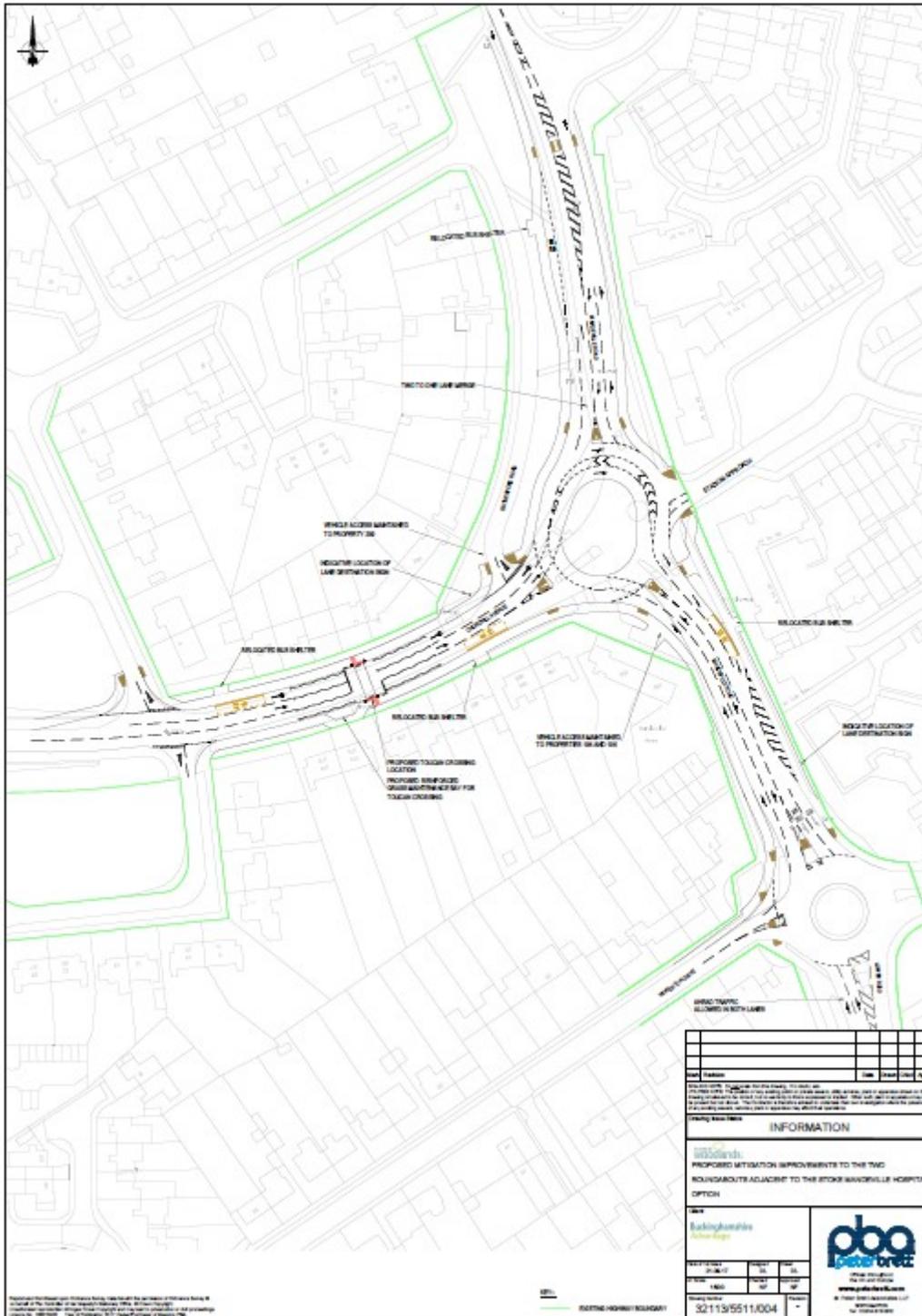
Table 13. Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
TA 2036 Do Nothing	122.7%	75.8	117.8%	69.8
TA 2036 Do Something	114.8%	80.4	112.1%	86.9
2036 Do Nothing	121.6%	133.7	105.2%	54.0
2036 Do Something	116.0%	97.4	99.3%	29.8

- Junction 11: B4443 Lower Road/Winterton Drive/Stoke Mandeville Hospital & Junction 12: B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue

The Lower Road / Winterton Drive / Hospital and the Lower Road / Mandeville Road / Stadium Approach / Churchill Avenue junctions are currently roundabouts located very close to each other. Section 5, page 26 of the TA assessed the impacts of the scheme on this network in 2021 and concluded that the mitigation measures previously proposed by Hampden Fields and Woodlands would offset the impacts of SEALR.

The mitigation scheme is set out again below for ease of reference.



The Highway Authority agrees that these works are necessary should SEALR be in place without the continuation of the links roads through South West Aylesbury.

A 2036 model has been used in the TAA and is the same as that produced for the Hampden Fields mitigation layout and has been agreed. The flows have been checked and are correct.

The applicant has provided a comparison of the Hampden Fields 2036 Do Minimum scenario (without junction improvements) with the 2036 SEALR Do Something scenario (without junction improvements). This comparison is shown in Table 16 below for junction 11.

Table 16. Junction 11: B4443 Lower Road / Winterton Road Stoke Mandeville Hospital – Hampden Fields Do Minimum Comparison

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
Existing Roundabout – HF 2036 Do Minimum	1.12	187.4	1.13	166.5
2036 Do Something	0.90	8.9	1.03	65.8

The table above shows that the existing roundabout in 2036 without SEALR will operate worse than the

2036 Do Something scenario with SEALR and without network improvements. This is because the 2036 Do Something scenario includes the SW Aylesbury link road which would negate the need for improvements to this part of the network.

The mitigation scheme proposed by Hampden Fields and Woodlands would therefore be required only to mitigate traffic conditions with SEALR and without SW Aylesbury. This is consistent with the conclusions drawn from the Woodlands and Hampden Fields modelling. A proportionate contribution towards the mitigation measures should therefore be provided by the applicant towards the Lower Road mitigation scheme should it be necessary.

- Junction 13: A418 Oxford Road / Ellen Road

This junction takes the form of a roundabout. The junction geometry has previously been agreed, the flows have been checked and are correct. The results show a slight improvement in operation of the junction with the SEALR. The impact of the of the scheme on this junction is therefore acceptable and no mitigation is therefore required.

Table 19. Junction 13: A418 Oxford Road / Ellen Road / Thame Road South

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.43	0.8	0.63	1.7
TA 2036 Do Something	0.42	0.7	0.57	1.3
2036 Do Nothing	0.56	1.3	0.73	2.7
2036 Do Something	0.53	1.1	0.69	2.2

- Junction 14: A418 Oxford Road / Coldharbour Way

This junction is currently a four-arm roundabout but is proposed to come forward as a five-arm roundabout delivered as part of the planning application for the South West Aylesbury development (ref: 18/04346/AOP).

The TAA explains that the geometric parameters in this model have been updated from the model used in the TA. We can confirm that the final layout of this junction has not been agreed as the junction design will need to be updated by the SW Aylesbury development. Flows have been checked and are correct.

Table 20. Junction 14: A418 Oxford Road / Coldharbour Way

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
Changes to junction layout				
TA 2036 Do Nothing	0.93	12.2	0.98	25.4
TA 2036 Do Something	0.95	16.3	0.94	14.0
2036 Do Nothing	1.14	177.2	1.33	344.4
2036 Do Something	1.20	186.0	1.31	314.9

Table 20 shows that the junction will operate over capacity in the 2036 Do Nothing scenario. The SEALR will slightly worsen the RFC and queue length in the AM peak period but improve RFC and queue length in the PM peak period.

The junction design will need to be updated by the SW Aylesbury development to accommodate all traffic demands arising from the VALP cumulative test, given that it forms the main point of access to their development site. Mitigation by the applicant for this application is therefore not required and it is expected that the design produced by SW Aylesbury will operate within capacity.

- Junction 15: B4443 Lower Road/SEALR/ Stoke Mandeville Relief Road

The B4443 Lower Road / Stoke Mandeville Relief Road / SEALR four-arm roundabout does not currently exist on the network and forms part of the Proposed Scheme. It will come forward as a three-arm roundabout when the Stoke Mandeville Relief Road, delivered by HS2, is open, and as a four-arm roundabout following the opening of the SEALR.

This junction was previously modelled as a linked junction with the Wendover Road / SEALR junction but has now been modelled as a single junction. The geometry has been updated in line with design changes. The geometry has been checked and is correct. The flows are also correct.

Table 21. Junction 15: B4443 Lower Road / Stoke Mandeville Relief Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.59	1.4	0.63	1.7
TA 2036 Do Something	0.68	2.1	0.71	2.4
2036 Do Nothing	0.64	1.8	0.65	1.9
2036 Do Something	0.84	5.0	0.83	4.4
Lane Simulation Results				
2036 Do Nothing	0.99	162.2	1.00	248.8
2036 Do Something	0.97	58.5	0.88	7.1

We noticed that the lane simulation results in Table 21 do not match the output and we therefore requested supplementary information which was submitted in a Technical Note by AECOM on the 8th January.

The Technical Note states “A review of the lane simulation output results included in the Transport Assessment Addendum has been carried out alongside the results stated in Table 21. It is observed that the results in Table 21 do not correlate completely with the outputs. The output file has been reviewed against the model and it is confirmed that the output file provided within the Transport Assessment Addendum is correct and the information within Table 21 for the lane simulation results are not wholly correct. The correct lane simulation results which should be stated in Table 21 of the Addendum are set out in Table 1 below. “

Table 1. Junction15: B4443 Lower Road / Stoke Mandeville Bypass / SEALR Revised Lane Simulation Results Table

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2036 Do Nothing	0.99	219.0	1.00	251.8
2036 Do Something	0.97	62.4	0.89	10.5

Table 2 shows larger queues in the Lane simulation 2036 Do nothing scenario and slightly higher queue lengths in the Lane simulation of the Do Something scenario.

The analysis shows that the junction can operate within capacity. However, the results for the lane simulation version show queuing in the AM peak hour although it also shows a significant improvement compared to the Do Nothing scenario. It is therefore considered that the proposed roundabout operation is adequate.

- Junction 16: A413 Wendover Road/SEALR

The geometry has been updated in line with design changes and is accepted. The flows have been checked and are correct.

A lane simulation version has also been provided, with the same geometry. The lane allocation for the western junction appears to be consistent with the drawings. For the eastern junction, the middle lane from the A413 north is coded as an ahead lane, rather than ahead/left.

The analysis shows that the junction can operate within capacity. However, the lane simulation results show that the junction is approaching capacity in 2036 with developing queues. In determining the acceptability of the junction operation it should be noted that this scenario includes the entire Local Plan development along with background traffic growth, which may not fully materialise, given the changes to working habits and travel patterns for example as a result of Covid. As such it is therefore considered to be a worse case which may not materialise.

Table 22. Junction 16: A413 Wendover Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.76	3.1	0.66	1.9
TA 2036 Do Something	0.68	2.1	0.70	2.3
2036 Do Nothing	0.57	1.3	0.61	1.6
2036 Do Something	0.84	5.0	0.87	6.0
Lane Simulation Results				
2036 Do Nothing	0.70	3.8	0.63	4.2
2036 Do Something	0.96	86.2	0.93	50.2

- Junction 17: A418/Eastern Link Road North

This junction has recently been constructed and is a three-arm signalised junction delivered as part of the Aylesbury East Kingsbrook development.

The model in the TAA is the same as that provided in May 2020 but is not consistent with the current plans. We have recently agreed a slightly different model for the Hampden Fields and Aylesbury Woodlands developments without a crossing on the A418 North arm and a staggered crossing across the ELR.

The Technical Note submitted by AECOM on the 8th January 2021 provides updated modelling with amended geometry. A review of the updated modelling shows that the measurements are slightly different compared to the Hampden Fields model, as is the coding, but unlikely to materially affect the results. The results for this junction are set out in Table 2.

Table 2. Junction 17: A418 / Eastern Link Road Revised Results

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	87.6%	24.6	86.3%	22.9
2036 Do Something	88.2%	21.4	83.2%	21.9

The results show that the junction operates within capacity in the 2036 DS scenario and results in a slight reduction in queue lengths. No mitigation is therefore required and the impact of the scheme is acceptable to the highway authority

- Junctions 18: ELRn North (Village) Roundabout

This junction is proposed to come forward as a four-arm roundabout delivered as part of the Aylesbury East Kingsbrook development. Hampden Fields have modelled this junction as a three arm roundabout as they have not included a fourth arm which is simply an agricultural access which had zero demand in the strategic model. The remaining geometry of this roundabout is similar to the Hampden Fields model. Flows have been checked and are correct.

We previously asked for the junction to be re-modelled with a pedestrian crossing. The model has now been updated with zebra crossings reflecting the proposed design. Table 6 shows that SEALR has minimal effect on the junction in the 2021(b) scenario.

Table 6. Junctions 18 & 19: ELRn North (Village) roundabout and ELRn South (Stocklake) roundabout

Scenario	Junction 18				Junction 19			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q
2021 (b) Do Nothing	0.37	0.6	0.37	0.6	0.41	0.7	0.53	1.1
2021 (b) So Something	0.41	0.7	0.37	0.6	0.40	0.7	0.48	0.9

Table 24 demonstrates that the junction remains within capacity in the 2036 Do Something scenario. Mitigation measures are therefore not required for this junction.

Table 24. Junction 18: ELRn North (Village) roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.43	0.8	0.61	1.6
TA 2036 Do Something	0.47	0.9	0.60	1.5
2036 Do Nothing	0.41	0.7	0.59	1.5
2036 Do Something	0.47	0.9	0.57	1.3

- Junction 19: ELRn South (Stocklake) Roundabout

This junction is proposed to come forward as a four-arm roundabout delivered as part of the Aylesbury East Kingsbrook development. The geometry is similar to the geometry used for the Hampden Fields application although it only had pedestrian crossings on 2 arms as opposed to crossings on all four arms with the HF geometry. It was requested that the model be amended to include crossings on all four arms.

The Technical Note by AECOM on the 8th January 2021 provides an amended junction assessment and the results are shown in Table 3 below.

Table 3. Junction 19: ELRn South (Stocklake) Roundabout Revised Results

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2036 Do Nothing	0.71	2.4	0.81	4.2
2036 Do Something	0.61	1.6	0.89	7.9

The results show that the SEALR improves the operation of the junction in the AM peak hour but there is a slight reduction in capacity in the PM peak hour and the junction will operate marginally above practical capacity. However, the impact is not considered significant and queue levels remain low. As such, the impact is acceptable and no mitigation is required.

- Junction 20: ELRs North Roundabout

Both the ELR North roundabout (Junction 20) and the ELR South roundabout (Junction 21) are Reserved Matter roundabouts associated with the Woodlands planning application and no definitive layouts have been prepared. However, AECOM have done some initial work on their designs and Table 26 shows that the ELRs North Roundabout junction will operate within capacity in 2036 with SEALR. Mitigation is therefore not required and the results are acceptable to the highway authority.

Table 26. Junction 20: ELRs North roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.83	4.8	0.72	2.6
TA 2036 Do Something	0.80	3.9	0.70	2.3
2036 Do Nothing	0.83	4.7	0.71	2.4
2036 Do Something	0.79	3.6	0.75	2.9

- Junction 21: ELRs South Roundabout

AECOM have carried out initial work on the design of this junction and geometry and flows have been checked and are correct based on the information provided. Table 27 shows that the junction will operate within capacity in 2036 with the SEALR reducing the RFC and queue lengths slightly. Mitigation is therefore not required and the results are acceptable to the highway authority.

Table 27. Junction 21: ELRs South roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2036 Do Nothing	0.75	3.0	0.60	1.5
TA 2036 Do Something	0.76	3.1	0.61	1.6
2036 Do Nothing	0.74	2.9	0.58	1.4
2036 Do Something	0.75	3.0	0.60	1.5

- Junction 22: Southern Link Road / New Road

The junction was proposed to come forward as a four-arm signalised junction delivered as part of the planning application for the Hampden Fields development. Due to the capacity issues raised at this junction when using the revised strategic model flows, the design team for the Hampden Fields application have amended the junction design. The TAA states that this junction has been re-modelled with the amended drawings and modelling information from Hampden Fields.

Table 28. Junction 22: Southern Link Road / New Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
TA 2036 Do Nothing	90.2%	19.7	82.6%	20.1
TA 2036 Do Something	104.4%	47.0	87.8%	22.8
2036 Do Nothing	61.6%	17.1	72.5%	26.4
2036 Do Something	74.0%	27.2	88.1%	43.0

The model is largely the same as the Hampden Fields model, with slight differences in the right turn storage available. There are also small differences in the lane lengths, widths and radii.

Table 28 shows that, although queue length increases with the SEALR in the 2036 Do Something scenario, the junction operates within capacity and mitigation is therefore not required.

- Junction 23: Southern Link Road / Marroway

The TAA explains that within the TA this junction was modelled as a roundabout, which is in line with the proposals contained within the TA for the planning application for the Hampden Fields development. However, due to the capacity issues with the revised flows, Hampden Fields have now changed this junction to be a signalised T junction. Drawings and modelling information have been provided to AECOM and the junction has been re-assessed with the revised flows in the TAA.

Geometry and flows have been checked and are correct. Table 29 shows that the junction will operate within capacity in 2036 with the link road. Therefore, no mitigation is required and the results are acceptable to the highway authority.

Table 29. Junction 23: Southern Link Road / Marroway Link Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	57.4%	13.4	44.8%	10.3
2036 Do Something	88.0%	34.4	88.8%	33.4

- Junction 24: A413 / Eascote Road

The applicants state that, as part of the process of preparing the TA, comments made at public consultation events were taken on board including one relating to the A413 Wendover Road / Eascote Road junction whereby concerns were raised in relation to the impact of the Proposed Scheme on the ability to utilise this junction. Although this junction had not originally formed part of the study area, an assessment of the impact of the Proposed Scheme was carried out.

The modelling suggests that the junction operates over capacity in the existing situation and will deteriorate further in future years with or without the addition of SEALR.

Table 30. Junction 24: A413 Wendover Road / Eascote Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2021 (a) Do Nothing	8.02	176.0	1.49	56.2
TA 2021 (a) Do Something	999999999	223.0	999999999	155.0
TA 2021 (b) No Nothing	3.07	215.6	2.29	124.6
TA 2021 (b) Do Something	3.11	178.9	11.45	232.8

The results show that in all the 2021 scenarios assessed, some form of improvement works would be required.

A number of arrangements were considered within the TA and due to the heavy northbound flows along the A413, it was considered that retaining a priority junction but in the form of a left-in left-out arrangement would provide the best results within the land available. This arrangement would result in the use of both the Camborne Avenue and SEALR roundabouts for the purposes of u-turning.

Table 31. Junction 24: A413 Wendover Road / Eascote Road - Left In / Left Out Arrangement

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
TA 2021 (a) Do Something	1.50	117.3	1.15	35.2
TA 2021 (b) Do Something	0.71	2.4	0.79	3.6
2036 Do Something	1.52	125.4	1.61	143.1

Table 31 shows that the left in left out arrangement would result in the junction operating significantly better than in the Do-Nothing scenarios. It is therefore considered that this arrangement would provide an improvement and would mitigate the impacts of SEALR.

In order to respond to 2036 traffic demands it is proposed that both the A413 Wendover Road/Cambourne Avenue and A413/Eascote Road Junction would be signalised and linked such that they operate as one large junction rather than two independent junctions. An indicative preliminary design has been derived by the applicants and assessed using the 2036 Do Nothing and Do Something flows.

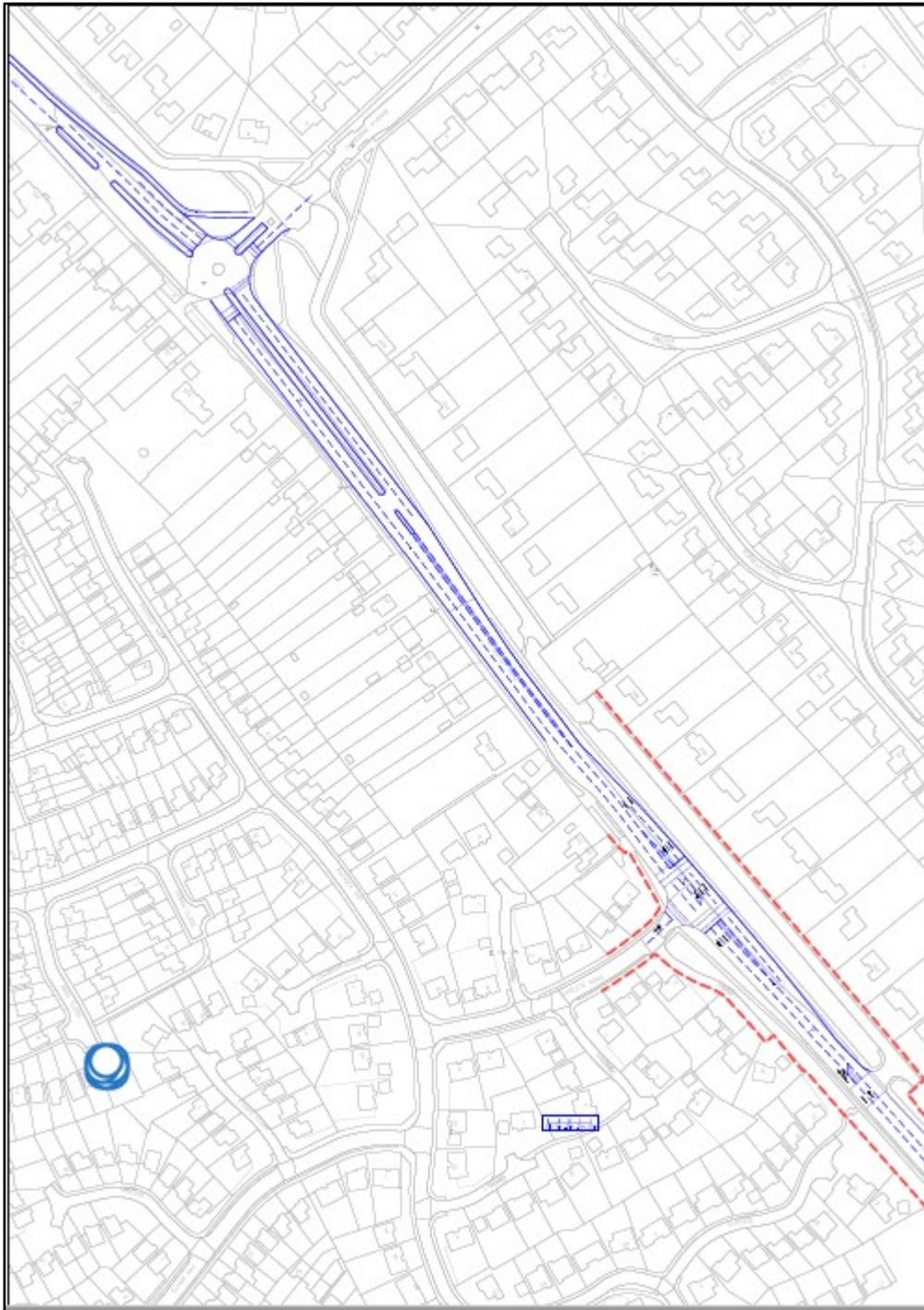


Table 32 – Junction 7 & 24: A413 Wendover Road / Camborne Avenue signalised three-arm junction and A413 / Eascote Road three-arm junction

Scenario	Junction 7				Junction 24			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q
2036 Do Nothing	77.5%	16.2	83.9%	21.6	73.0%	16.7	71.3%	15.0
2036 Do Something	85.8%	24.4	83.6%	20.8	87.5%	23.0	88.7%	24.4

This flows have been checked and are correct.

The results illustrate that the indicative preliminary signalised junction design would be sufficient to cater for the level of traffic identified for the 2036 Do Something scenario and would therefore be an adequate mitigation should traffic flows reach the levels identified for 2036 or a change of layout at the Camborne Road junction be required.

The TAA states that the 2036 flows are very robust and with changes in working practices it is unlikely that the levels of traffic identified by 2036 would come forward in the future. It is proposed that the traffic flows along the A413 Wendover Road would be monitored and if flows were to reach the levels set out in the 2036 Do Something scenario then Buckinghamshire Council would undertake a review to establish the timing for the implementation of the signalisation schemes.

- Summary

In summary the analysis set out in the TAA suggests that the SEALR would deliver benefits to the transport network and fulfil part of the aims of the Aylesbury Transport Strategy and VALP mitigation. The traffic impact of the SEALR is therefore considered acceptable subject to the following mitigation measures;

- Commitment to the mitigation works to the Bedgrove / Broughton Lane junction;
- A413 / Eastcote Road left in Left out;
- A413 Wendover Road/Cambourne Avenue and A413/Eastcote Road Junction signalising if required subject to monitoring traffic flows;
- Commitment to the Lower Road improvements to mitigate traffic impacts without the SW Link Road

Response to concerns raised by Network Rail

Chapter 6 sets out a response to the concerns raised by Network Rail to the Public Rights of Way (PRoW) and level crossing in the vicinity of the SEALR.

An existing PRoW runs east-west between Lower Road and Wendover Road to the south of the SEALR. This comprises sections SMA 2/1 and SMA 2.2 from Lower Road to the railway and SMA 2/3 between the railway and Wendover Road, with a pedestrian level crossing at the railway.

The SEALR does not physically affect the PRoW or change the level of patronage at the level crossing and Network Rail have not suggested that the SEALR will cause a severe adverse impact on safety of the level crossing once operational. The TAA therefore argues that it is not appropriate for the Proposed Scheme to close the level crossing or to divert this PRoW.

However, the TAA explains that passive provision for the future diversion of the PRow and closure of the level crossing has been added to the Proposed Scheme. The aim of this is to reduce the cost and disruption of future diversion of the route by others.

The passive provision allows the PRow to be diverted to utilise the SEALR bridge to cross the railway, allowing the level crossing to be closed. Earthworks suitable for a DDA compliant route for pedestrians and for cyclists have been included from the maintenance track up to the footway / cycleway on the southern side of the carriageway.

The passive provision in the form of earthworks is welcomed by BC.

Mindful of the above, I can now confirm that I have no objection to the proposed development subject to the mitigation measures submitted with the application and subject to conditions which will be advised.

Yours sincerely

Del Tester

Highways Development Management Planning Growth & Sustainability



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Development Management
(Aylesbury Area)
Planning, Growth & Sustainability
Buckinghamshire Council

10th June 2020

F.A.O. Catherine Kelham

Dear Catherine

Application Number: CC/0015/20

Proposal: New dual carriageway link road including: roundabout junction B4443 Lower Road, roundabout junction at A413 Wendover Road, railway bridge, footway/cycleways, noise attenuation barrier, street lighting, earthworks and landscaping between B4443 Lower Road and A413

Location: Land Between The A413 Wendover Road and the B4443 Lower Road in the Parishes of Stoke Mandeville, Weston Turville and Aylesbury.

Thank you for your letter dated 23rd April 2020 with regard to the above planning application.

Background

The Vale of Aylesbury Local Plan (VALP) has been developed and a draft for submission was issued for consultation in late 2017 and submitted to the Secretary of

State in early 2018. An Examination in Public (EiP) was held in July 2018 and the Inspector's Interim Findings were published in August 2018. Discussions have continued since and a decision is expected in 2019. The draft VALP identifies Aylesbury as a major growth location for approximately 8,000 new homes.

The need for the proposed scheme has arisen through the development of High Speed Two (HS2). The alignment of HS2 passes Aylesbury to the south west, and in doing so will sever the A4010 Risborough Road south of Stoke Mandeville.

As part of the proposals for HS2, a new link road will be delivered to divert the A4010 around the west of Stoke Mandeville, connecting with the B4443 Lower Road further north, via a new roundabout. This scheme is referred to as the Stoke Mandeville Relief Road (SMRR). Traffic modelling has indicated that this re-alignment will cause congestion at the Stoke Road gyratory (B4443 / A413 junction Stoke Road / Wendover Road / Walton Street) within Aylesbury town centre, leading to increased traffic, queuing and delays. Increased traffic on the B4443 arising from the proposed SMRR is also likely to result in worsening air quality issues at the Stoke Road gyratory which is a designated Air Quality Management Area (AQMA), due to high traffic levels and emissions related to idling vehicle engines and queueing.

To address this, the proposed South East Aylesbury Link Road (SEALR) scheme will provide a new road to connect the B4443 Lower Road with the A413 Wendover Road. The proposed scheme programme anticipates opening at the same time as the SMRR, to address the congestion issues.

The proposed scheme also contributes to a long-term vision to deliver an orbital route around Aylesbury, together with proposed link roads that will be delivered through large housing projects to the south east of Aylesbury, which are allocated in the emerging VALP.

Planning History

There is no previous planning history for the site. The alignment of the road traverses existing agricultural land between the A413 Wendover Road and B4443 Lower Road.

Proposed Development nearby

There are a number of large residential developments and infrastructure improvements planned in the south Aylesbury area.

Planning application 19/01628/AOP, 750 dwellings at Land east of Lower Road, is located directly north and south of the site. This application is currently under consideration.

Towards the west, the site links to the Stoke Mandeville A4010 Realignment (Stoke Mandeville Relief Road). The alignment of the proposed HS2 railway line will sever the existing A4010 Risborough Road to the south of Stoke Mandeville. As part of the HS2 scheme, an underpass under the HS2 railway line will be provided on the existing A4010 Risborough Road for access to Stoke Mandeville from the south.

To the east of the development site is Land at Lower Road Stoke Mandeville, which received outline planning permission for up to 190 residential dwellings in March 2017 and is currently being built.

To the north of the development site is application 16/04608/AOP Land off Lower Road which received outline permission in November 2017 for 125 dwellings.

The Hampden Fields development, which includes a proposed link road (the Southern Link Road) that will connect the A413 to the A41, is located east of the SEALR. This site has a resolution to grant permission for 3,000 dwellings.

Aylesbury Woodlands development (1,100 dwellings) which received a resolution to grant planning permission in October 2017, is located north of the A41.

To the east of the development site is application 18/04346/AOP, Land at South West Aylesbury, submitted in December 2018, for 1,400 dwellings.

Pre-application Discussions

A Pre-application process was undertaken between 2017 and 2019. A Scoping Note was prepared in 2017, and a response was sent out on 7th March 2017. The Highway Authority commented in October 2018 on the first draft of the Transport Assessment, which was submitted September 2018. A revised Draft TA was received in February 2019 and a second response was issued on the 19th July 2019. A second revised Draft TA was received in September 2019 and a further meeting was conducted on the 17th September 2019.

Comments on Submitted Transport Assessment

A Transport Assessment (TA) dated March 2020 was submitted by Aecom, on behalf of the applicant, in support of this application.

Site Location and Access

The site is located south of Aylesbury and north of Stoke Mandeville. The alignment of the road traverses existing agricultural land between the A413 Wendover Road and

B4443 Lower Road. The London Marylebone to Aylesbury railway line bisects the site in a north to south direction.

East of the site is the A413, Wendover Road, a wide two-way single carriageway road with a shared cycle/footway adjacent to the western verge and a footway adjacent to the eastern verge. The road is street lit and is subject to a 40 mph speed limit at the location of the proposed SEALR junction. Immediately to the north of the proposed scheme the speed limit of the A413 changes to 30mph as it enters the main built-up area of Aylesbury.

To the west of the site area, the B4443 Lower Road runs in a broad north to south direction between its junctions with the A413 at the Stoke Road Gyratory near Aylesbury town centre to the north and the A4010 in Stoke Mandeville to the south. Lower Road, in the vicinity of the scheme location, is a single carriageway road with one lane running in each direction. Hatching separates the northbound and southbound traffic streams. The road is street lit and subject to a 40mph speed limit.

A shared cycle/footway is provided on the eastern side of the Lower Road carriageway, where a number of residential properties are also located which feature individual driveway accesses. This footway/cycleway forms part of the Jetway cycle route between Aylesbury and Stoke Mandeville.

Walking

The TA explains that there are a number of footways in the vicinity of the site. Wendover Road has footways on both sides of the road with the footway on the western side of the carriageway being a shared cycle/footway of approximately two metres wide. The footway on the eastern side is also 2m wide. An uncontrolled pedestrian crossing is provided on Wendover Road to the immediate north of the proposed scheme featuring dropped kerbs, tactile paving and a pedestrian refuge island. A further crossing is available to the south, at the roundabout to Stoke Grange.

On Lower Road, a shared cycle/footway is provided on the eastern side of the carriageway only and forms part of the Jetway cycle route to Stoke Mandeville. This footway is approximately 1.5 metres wide.

A number of Public Rights of Way (PRoW) pass through the scheme area. These include:

- SMA1/2, a bridleway which starts at Wendover Road immediately north of the Stoke Grange roundabout, briefly heads west before turning south away from the alignment of the proposed scheme towards Stoke Mandeville.
- SMA2/1-2/3, a footpath which runs through the site in a broad east to west direction closely following the alignment of the proposed scheme linking Lower Road with Wendover Road. This footpath crosses the Aylesbury to London Marylebone railway line at an uncontrolled level crossing. Stiles are provided either side of the railway to control access to the Network Rail land.
- SMA3/1-3/2, a footpath which runs through the site in a broad north to south direction bisecting the alignment of the proposed scheme.

Pedestrian surveys of the PRow network in the vicinity of the SEALR were conducted in November 2018 to understand the volume of current usage and inform an assessment of the impact of the proposed scheme on pedestrians. Usage during the weekends was found generally higher than that during the week. Overall, the surveys identified a low volume of pedestrians currently utilising the PRow in the vicinity of the proposed scheme.

Aylesbury is one of the original six national Cycling Towns which was chosen by Cycling England (now defunct) as a demonstration town to increase safety for cyclists and promote and increase the number of people cycling within the town. This involved the promotion of events and existing routes within the town as well as upgrading existing facilities and providing new facilities including parking spaces, routes and crossings.

As part of this, a network of nine cycleways, named the Gemstone Cycleway Network were created which connect outlying villages with the residential and employment areas of Aylesbury. Of the nine routes, two run south from the town centre, one, the Jetway, runs towards Stoke Mandeville and the second, the Amberway, runs towards Wendover. Both of these routes pass through the proposed scheme area utilising both on and off road facilities provided along Wendover Road and Lower Road. In the immediate scheme area, the routes take the form of shared cycle/footways on the western side of Wendover Road and on the eastern side of Lower Road.

There are seven bus stops located within 400 metres of the proposed scheme and 3 within the site area. These are on Wendover Road at Silver Birch Way and Ranch House on Lower Road.

The London-Aylesbury railway line bisects the proposed scheme at its approximate mid-point. The closest railway station on this line is Stoke Mandeville which is located approximately one kilometre south of the proposed scheme on Station Road. The station is operated by Chiltern Railways with services generally operating seven days a week.

Personal Injury Collisions

The TA includes an extensive review of Personal Injury Collision (PIC) data on the adjoining road network. The review concludes that there are no significant patterns for the majority of incidents that have occurred when examining the contributory factors. The recurring contributing factor on most of the links was related to driver error, with failure to look properly the most commonly occurring factor of accidents that occurred on the respective links. The TA states that it is not considered likely that the proposed scheme will materially impact the pattern of collisions that have occurred and due to their being no evidence of existing specific highway safety issues it is considered that this assumption is reasonable.

Network Patterns

The existing road network in Aylesbury is formed of three main approaches, the A413, A41 and A418. All routes meet in the town centre at junctions around the ring road formed by the A41 and A4157. Traffic data from the countywide Strategic Model suggests that the majority of arterial routes within Aylesbury are congested during peak periods leading to poor journey times and reduced journey time reliability. The most affected area is the Stoke Road gyratory which will be further impacted once the new link road associated with HS2 comes forward, as without the proposed SEALR the majority of traffic utilising the new link road would need to travel through the Stoke Road gyratory.

The SEALR is being proposed to address this congestion as a result of HS2 whilst forming part of the long term vision for Aylesbury as set out in the VALP and the Aylesbury Transport Strategy to deliver an orbital route around the town.

Design

The proposed scheme will deliver a Link Road between the realigned A4010 junction with the B4443, and the A413 Wendover Road, in the form of a two-lane dual carriageway. The design speed is 70kph and the speed limit is set to be 40mph.

We are aware that there have been discussions between the applicant and the promoters of the Hampden Fields site concerning the alignment of the road at the connection with the Southern Link Road at the junction with Wendover Road. Before finalising our review of this application, we will need to see evidence that any issues associated with the road alignment in this location have been adequately addressed.

A four arm roundabout connecting Lower Road (B4443), the Stoke Mandeville Relief Road and the

SEALR will represent the western extents of the scheme. This roundabout will feature an Inscribed Circle Diameter (ICD) of 69m and two circulatory lanes with two lane approaches on all arms to accommodate the traffic flows anticipated within the future forecast year of 2036. The roundabout and all approaches will be street lit. Pedestrian and cycle provision will be provided around the northern and eastern sides of the junction to tie in with existing facilities. Controlled crossing points will also be provided on the northern and eastern arms.

The northern Lower Road arm includes a horizontal deflection approximately 60m north of the roundabout. This horizontal alignment includes a 90m radius and localised curve widening. We have concerns that this alignment is not in line with Table 2.10 of CD 109 Highway Link Design (DMRB) and we require a justification as to why there is a departure from DMRB standards.

Due to the new road alignment and location of the junction on Lower Road, dwellings 8-28 Lower Road will now be served by a cul de sac which runs parallel to the main carriageway. No swept path drawings have been provided within the TA to demonstrate that a refuse vehicle can enter and exit the cul de sac in a safe and convenient manner. This will need to be provided in order to demonstrate that this is an acceptable situation.

The link road will consist of a two lane dual carriageway and will be subject to a 40 mph speed limit. A shared use three metre wide footway / cycleway will run along the northern side of the carriageway and a two metre footway will be provided along the southern side. Illuminated solar studs will be provided along the footway/cycleway on the northern side of the carriageway.

A new bridge structure is proposed across the London to Aylesbury railway line which bisects the SEALR approximately mid-way along its length. The structure itself will feature a single span of 46.5m. This span has been developed to cross the entire Network Rail corridor as well as to provide a north-south ecology corridor to the west of the railway line. Adjacent to the bridge abutments space has been reserved for maintenance access and to facilitate the movement of pedestrians and cyclists. This will also permit the future aspiration for a cycle link between Stoke Mandeville Village and Stoke Mandeville Hospital.

The SEALR will terminate at a roundabout junction on Wendover Road to the east. This four arm roundabout will connect Wendover Road (A413), the Southern Link Road (Through Hampden Fields) and the SEALR. This roundabout will feature an ICD of 80m and three circulatory lanes with three lane approaches on all arms. The roundabout and all approaches will be street lit. Pedestrian and cycle provision will be provided around the northern and western arms of the junction to tie in with existing facilities. Pedestrian only facilities will be provided around the eastern arm.

Controlled crossing points will also be provided on the northern, western and eastern arms.

Road Safety Audit

A Stage 1 Road Safety Audit (RSA) has been undertaken of the scheme and this audit revealed a number of issues. These included concerns regarding the straight alignment of the proposed link road, which may result in vehicles travelling at excessive speeds, concerns regarding existing accesses, excessive widths on the roundabout entry and exit lanes and lack of cycle facilities.

A Designers Response was prepared to address the issues raised in the RSA. With regards to the road being too straight the response explained *“The road has been curved as far south as possible and further speed restriction introduced through the vertical alignment. It is therefore considered that the design has responded to the potential for high vehicle speeds as much as possible within the constraints of the project. No further change to the horizontal alignment of the scheme is considered feasible.”* We understand that the alignment of the road is fixed to a certain extent by the need to tie into junctions with connecting roads at either end and the location of the bridge over the railway line.

The RSA stated that *“the existing access to County Farm Cottages is located approximately 35m to the south of the proposed southern exit from the eastern roundabout. This may result in rear end shunt type collisions between vehicles slowing down to turn left into the farm access and other road users continuing southbound on Wendover Road within the nearside lane, unless a sufficient level of forward visibility is provided. Additionally, overhanging or excessive vegetation in this location may block visibility splays for vehicles approaching and exiting the access, resulting in collisions between emerging vehicles and main line traffic. As vehicles exiting the roundabout will be concentrating on merging from two lanes to one at this point this could exacerbate this concern.”*

The Designers Response states that the forward visibility will be maximised in this location to assist motorists assessing turning vehicles ahead. Consideration will be given to signing when the signing strategy is developed at detailed design. The Highway Authority would like to see confirmation on the level of forward visibility that will be achieved once it has been maximised and we are satisfied that the issue of signing can be dealt with as part of the development of the signage strategy.

The RSA mentions that *“the proposed roundabout circulatory at this location is to have three circulating lanes, with all exit arms only having two lanes. This may lead to conflicting manoeuvres between circulating vehicles when attempting to exit the roundabout circulatory.”*

The Designers Response explains that the roundabout geometry has been informed by junction capacity assessments. The number of entry lanes is dictated by this

modelling. At the detailed design stage a signing strategy will be developed and it is considered that this issue can be addressed as part of that strategy.

The RSA states that “*off-road shared cycle facilities are provided north, east and west of the proposed roundabout as part of the scheme. However, there are no such facilities proposed to the south of the western roundabout alongside the southbound carriageway.*” The design of the western roundabout has now been amended to include a cycle facility at the southern section of the roundabout which is acceptable.

BC is satisfied that the remaining issues in the RSA will be considered at the detailed design stage as explained in the Designers Response.

Traffic Impact

It was previously agreed that the following strategic modelling Scenarios needed to be considered:

Table 11 – Summary of Scenarios and Infrastructure and Committed Developments

Scenario	Committed Infrastructure	Committed Development
2021(a) Do Nothing	Stoke Mandeville A4010 Realignment Eastern Link Road (North) Stocklake Link Road (Rural)	Berryfields (1,901 dwellings) Aylesbury East (617 dwellings and 25,459sqm employment)
2021(a) Do Something	2021(a) Do Nothing plus SEALR	-
2021(b) Do Nothing	2021(a) Do Nothing plus: Eastern Link Road (South) Southern Link Road	2021(a) Do Nothing plus: Woodlands (74% of employment) Hampden Fields (60 dwellings) Berryfields (additional 125 dwellings) Aylesbury East (additional 175 dwellings)
2021(b) Do Something	2021(b) Do Nothing plus SEALR	-
2036 Do Nothing	2021(b) Do Nothing plus: A413/A418 Link Road	2021(b) Do Nothing plus: Broughton (Full Build) Aylesbury South West (Full Build) South of Aylesbury (Full Build) RAF Halton (Full Build) Woodlands (Full Build) Hampden Fields (Full Build) Berryfields (Full Build) Aylesbury East (Full Build)
2036 Do Something	2036 Do Nothing plus SEALR	-

The TA explains that a two stage assessment methodology has been adopted. Initially an assessment has been undertaken to determine where changes in traffic flows on the highway network are anticipated as a result of the proposed scheme. Where an increase in traffic flow at an arm of a junction is anticipated to be more than 5% in the peak hours assessed, a junction capacity assessment has been identified as being required to be undertaken.

The TA explains that this work has been conducted and is attached in Appendix H of the TA.

Table 13 on page 58 of the TA shows a summary of the impact. The table has been compared with Appendix H of the TA. Although not shown on the table, Junction 2: A41/ New Road also has a more than 5% increase in the 2021A scenarios and these should therefore also be subject to an assessment, although the AM and PM flows are identical so it is likely that there is a mistake in the Appendix H Table here. The applicant is therefore requested to review the flows and make any necessary corrections.

Following discussions between the Highway Authority and the Applicant, the percentage impact at the junctions on the Southern Link Road and Eastern Link Road was also assessed.

- Junction 1: A41 / A41 Aston Clinton Road / Aylesbury Road

The base year junction has been modelled using the ARCADY module of the Junctions9 suite, and the future year junction has been modelled using TRANSYT. The geometry for the base year model appears to be reasonable, while the future year model appears to be the same as that produced for the Aylesbury Woodlands development. The flows have been checked and are correct.

Table 15 in the TA summarises the results of the analyses and suggests that the junction can operate within capacity in all situations. Mitigation measures are therefore not required.

Table 15 – Junction 1: A41 Aston Clinton Road / Aylesbury Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	0.65	1.9	0.63	1.7
2021(a) Do Nothing	0.70	2.4	0.75	3.0
2021(a) Do Something	0.72	2.5	0.75	3.0
Changes to junction layout				
	Max DoS	Max Q	Max DoS	Max Q
2021(b) Do Nothing	49.73%	6.65	61.58%	8.29
2021(b) Do Something	56.83%	7.50	73.10%	12.85
2036 Do Nothing	72.86%	11.50	76.56%	14.21
2036 Do Something	77.82%	13.88	75.36%	12.46

- Junction 2: A41/ New Road/ MDA and Junction 3: A41/ Bedgrove

The TA states that “*within the Hampden Fields TA, the A41/Broughton Lane/Bedgrove and A41/New Road junctions are all modelled within a single Linsig model. This approach has been replicated within this TA.*”. However, the TA is slightly confusing as Junction 3 is modelled separately with the mitigation in Table 16 and as a linked Linsig model with New Road in Table 17. Both models do not have the new link road to the north off Broughton Lane included. The modelling of Junctions 2 and 3 should reflect the agreed Hampden Fields and Woodlands mitigation, including the Broughton Lane link and should be the combined model with the New Road junction.

With regards to the model of the existing situation, no flows are shown from Richmond Road in the 2021b and 2036 model runs, although it does have a stage for the phase, so the model provides capacity for some vehicles to use this approach. The flow from Broughton Lane (C) to the A41W (D) has been coded as 161 rather than 261 in the 2036 DS AM peak model. This needs to be amended and the modelling needs to be re-submitted.

The 2021b and 2036 future year scenarios have been modelled using the proposed layout that is secured as part of the planning permissions for the Aylesbury Woodlands development (ref:16/01040/AOP) and Hampden Fields development (16/00424/AOP). This is acceptable.

Table 16 – Junction 3: A41 Aston Clinton Road / Richmond Road / Bedgrove (incorporating Broughton Lane)

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	126.3%	77.2	130.8%	102.2
2021(a) Do Nothing	247.2%	240.0	170.1%	195.5
2021(a) Do Something	259.2%	254.7	196.6%	230.0
Changes to junction layout				
2021(b) Do Nothing	66.0%	14.8	59.2%	15.3
2021(b) Do Something	58.5%	12.7	51.8%	11.5
2036 Do Nothing	102.4%	45.0	84.0%	26.6
2036 Do Something	72.0%	15.9	69.4%	19.2

Table 16 shows that in the 2021(a) scenarios (no Woodlands), the junction exceeds capacity, but the mitigation model improves the situation. The junction is forecast to

operate over-capacity in the 2036 Do Nothing scenario with performance improving as a result of implementing the SEALR.

The model of the mitigation proposed as part of the Hampden Fields and Aylesbury Woodlands development is based on the agreed LINSIG model but does not include the new link road to the north off Broughton Lane. The flows have not been included in the output file, so it has not been possible to check them. However, it is not necessary to re-model this option as the junction needs to be assessed as a combined model with the New Road junction.

The combined model includes the New Road / MDA junction but again it does not include the new link road to the north off Broughton Lane. The modelling of Junctions 2 and 3 should reflect the agreed Hampden Fields and Woodlands mitigation, including the Broughton Lane link and should be the combined model with the New Road junction.

Table 17 shows that in both the 2021(b) scenarios, the junctions are forecast to operate within capacity. The junction is forecast to operate near capacity in the 2036 Do Nothing scenario with performance improving as a result of implementing the SEALR. The TA states that it is therefore considered that no mitigation is required at this location.

Table 17 – Junction 2 & 3 A41 Aston Clinton Road / New Road (including S278 improvement) and A41 Aston Clinton Road / Richmond Road / Bedgrove (excluding Broughton Lane improvement)

Scenario	Junction 2				Junction 3			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q	Max DoS	Max Q
2021(b) Do Nothing	70.7%	12.3	64.5%	23.7	73.9%	25.3	75.5%	20.1
2021(b) Do Something	62.3%	11.0	56.7%	8.2	70.9%	23.9	69.2%	19.2
2036 Do Nothing	84.2%	25.2	83.9%	26.6	89.3%	42.0	87.1%	45.7
2036 Do Something	70.4%	17.0	68.5%	13.8	79.1%	35.2	71.1%	40.5

There appears to be some discrepancies with the traffic flows in the LINSIG model. For instance, for the 2021b DM AM Peak, the model has the flow from Bedgrove (C) to A41W (F) as 119, with Bedgrove (C) to New Road (G) as 14. The right turn from C, which includes both of these movements is 394 on the stick diagram. Similarly, the flows from Broughton Lane to the A41W and New Road appear to be low. The flows from the A41 west also appear to be high. There are similar discrepancies in the PM peak flows.

Total flows from F (A41 east approach) in the model are 1011 for the 2021b DS AM Peak model, whereas the stick diagrams suggest it should be 684.

The traffic flows used in the model should therefore be reviewed and updated as appropriate.

The March 2020 Transport Assessment produced a different set of results for the combined model than those presented in the previous Transport Assessment. Clarification needs to be provided to confirm what changes have been made to the model in order to achieve the improved results set out below.

The TA explains that if the improvements proposed at the junction by Hampden Fields and Aylesbury Woodlands do not come forward as part of the developments mentioned, a review will need to be undertaken to determine whether the SEALR scheme is required to provide mitigation in this location.

The Highway Authority can confirm that the SEALR scheme would be required to provide mitigation in this location if Hampden Fields and Woodlands do not come forward. Any junction mitigation works to the Bedgrove /Broughton Lane junction should be consistent with the mitigation measures agreed with Hampden Fields and Woodlands.

- Junction 4: A41 / A4157/ King Edward Avenue

The LINSIG model is the same as that produced for the Aylesbury Woodlands planning application, although there is a different cycle time. The geometry and flows have been checked and are correct.

The mitigation model is also the same as that produced for the Aylesbury Woodlands and Hampden Fields applications. The flows appear to be generally correct, although the 2021b DM PM flow from D to C is coded as zero and should be 15. This needs to be updated.

Table 18 in the TA demonstrates that the junction currently operates near capacity and is forecast to do so in both 2021(a) scenarios (No Woodlands). In the 2021(b) scenarios, the change in layout results in an improvement of performance in both the AM and PM peak hours, with overall capacity below 90%. Junction performance operates above capacity with 92.2% saturation in the AM peak hour and 91% saturation in the PM peak hour in the 2036 Do Something scenarios but the SEALR does not affect queues.

It is agreed that the results show that if the junction improvements are not brought forward by the Aylesbury Woodlands or Hampden Fields development then they will need to be brought forward as part of the SEALR instead.

Table 18 – Junction 4: A41 Aston Clinton Road / A4157 / King Edward Avenue

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	97.6%	25.2	88.6%	16.9
2021(a) Do Nothing	97.4%	25.4	85.0%	14.4
2021(a) Do Something	99.3%	29.5	85.1%	14.0
Changes to junction layout				
2021(b) Do Nothing	83.6%	11.1	85.0%	12.3
2021(b) Do Something	83.2%	10.5	83.5%	10.9
2036 Do Nothing	88.8%	11.9	91.2%	25.2
2036 Do Something	92.2%	10.9	91.0%	25.2

- Junction 5: A41 Aston Clinton Road/Park Street/Tesco/Walton Road

The junction has been modelled using the ARCADY module of Junctions 9. The model is consistent with that produced for the Aylesbury Woodlands development. The flows have been checked and are generally correct, although the flow from Park Street to Walton Road in the 2021a DS PM is coded as 276 instead of 254, giving a robust result.

The results are summarised in Table 19 of the TA, copied below, and show that the junction can operate within capacity in 2021. Mitigation measures are therefore not required. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 19 – Junction 5: A41 Aston Clinton Road / Park Street / Tesco / Walton Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	0.76	3.0	0.63	1.7
2021(a) Do Something	0.80	4.0	0.59	1.4
2021(b) Do Nothing	Not Assessed		Not Assessed	
2021(b) Do Something	Not Assessed		Not Assessed	
2036 Do Nothing	Not Assessed		Not Assessed	
2036 Do Something	Not Assessed		Not Assessed	

- Junction 6: A413 Walton Street / Wendover Road / Stoke Road (Walton Street Gyratory)

The model is similar, but not the same as the model agreed and used to test and assess the Hampden Fields development. The Hampden Fields LINSIG network includes Walton Green and a two lane exit to the south on Wendover Road. However, the saturation flows and signal data in the model appear to be broadly consistent with the agreed Hampden Fields model, although they use different cycle times. An explanation as to why the model is not consistent with the Hampden Fields model is required.

The traffic flows have been checked and some appear to have been omitted from the model, specifically those relating to arrivals and departure from Walton Green and u-turning flows from Walton Street. This will result in the model overestimating the capacity of the junction and therefore needs to be corrected to ensure a robust result.

The summary table included below shows that the junction is anticipated to operate over capacity in all scenarios. In 2021 (a) and 2036 the Do Something scenario is an improvement on the Do Nothing scenario. In the 2021 (b) scenario the addition of the proposed scheme results in an improvement of performance in the AM peak but a slight worsening in the PM peak. Junction performance improves in the 2036 Do Something scenario with saturation decreasing although queues increase slightly. Overall, the results demonstrate that the SEALR contributes to relieving congestion in this location, which leads to the conclusion that mitigation measures are therefore not required. We do however require the explanation as to why the model is not consistent with the Hampden Fields model, as detailed above, before we can be satisfied with these results.

Table 20 – Junction 6: A413 Walton Street / A413 Wendover Road / Stoke Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	135.4%	167.6	125.8%	125.7
2021(a) Do Something	124.4%	119.3	116.9%	98.5
2021(b) Do Nothing	128.5%	142.1	126.7%	131.7
2021(b) Do Something	107.3%	49.0	128.3%	136.3
2036 Do Nothing	122.7%	75.8	117.8%	69.8
2036 Do Something	114.8%	80.4	112.1%	86.9

Junction 7: A413 Wendover Road/Cambourne Avenue

The junction has been modelled using the ARCADY module of Junctions 9. The model is the same as that used for the Hampden Fields development.

The results illustrate that the junction is operating within capacity in the AM and PM peak hours in 2018 with minimal queuing. In the 2021(a) Do Nothing scenario, the junction is shown to be operating at or close to capacity. In the Do Something scenario, the RFC and queueing increases and the junction exceeds capacity.

In the 2021(b) scenario, following the opening of the Eastern Link Road (South) and the Southern Link Road, the performance of the junction improves and is further improved with the opening of the SEALR in the AM peak hour.

Should the Hampden Fields and Aylesbury Woodlands developments not come forward, additional mitigation will be required in this location to accommodate the SEALR on the highway network.

Table 21 – Junction 7: A413 Wendover Road / Camborne Avenue

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	0.56	1.3	0.71	2.4
2021(a) Do Nothing	0.84	5.1	0.85	5.6
2021(a) Do Something	0.92	10.7	1.02	63.5
2021(b) Do Nothing	0.68	2.1	0.67	2.0
2021(b) Do Something	0.62	1.6	0.72	2.6
2036 Do Nothing	Not Assessed		Not Assessed	
2036 Do Something	Not Assessed		Not Assessed	

- Junction 8: A413 Wendover Road/Silver Birch Way

The junction has been modelled using the ARCADY module of Junctions9 and the model is the same as that used for the Aylesbury Woodlands application. The flows have been checked and are correct. The results of the analysis show that the junction can operate within capacity in the two situations that have been modelled with the SEALR providing an improvement. Mitigation measures are therefore not required. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 22 – Junction 8: A413 Wendover Road / Silver Birch Way

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	0.80	4.0	0.66	1.9
2021(a) Do Something	0.74	2.9	0.62	1.6
2021(b) Do Nothing	Not Assessed		Not Assessed	
2021(b) Do Something	Not Assessed		Not Assessed	
2036 Do Nothing	Not Assessed		Not Assessed	
2036 Do Something	Not Assessed		Not Assessed	

- Junction 9: A413 Wendover Road/A4010 Station Road

The junction has been modelled using the ARCADY module of Junctions9 and the model is broadly the same as that used for the Aylesbury Woodlands application. The model has been set up for the flows to be input as vehicles. This has been done for the 2018 scenarios but flows for the 2021 Do Nothing and Do Something models have been input in PCU's. This will result in the model overestimating the traffic volumes for these scenarios. It is likely that the junction will operate with more capacity than has been modelled for both of the 2021 situations. The results suggest that the SEALR will improve the operation of the junction and mitigation measures are therefore not required.

Table 23 – Junction 9: A413 Wendover Road / A4010 Station Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	0,83	4,6	0,87	6,1
2021(a) Do Nothing	0.93	10.6	1.14	77.8
2021(a) Do Something	0.80	3.9	0.82	4.4
2021(b) Do Nothing	Not Assessed		Not Assessed	
2021(b) Do Something	Not Assessed		Not Assessed	
2036 Do Nothing	Not Assessed		Not Assessed	
2036 Do Something	Not Assessed		Not Assessed	

- Junction 10: A4010 Station Road/B4443 Lower Road/A4010 Risborough Road

The junction has been modelled using the ARCADY module of Junctions9. The junction has been modelled as a standard roundabout, whereas it is a mini roundabout.

Table 24 demonstrates that SEALR would improve the operation of the roundabout. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 24 – Junction 10: A4010 Station Road / B4443 Lower Road / A4010 Risborough Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	0.64	1.7	0.56	1.3
2021(a) Do Nothing	0.37	0.6	0.33	0.5
2021(a) Do Something	0.25	0.3	0.24	0.3
2021(b) Do Nothing	Not Assessed		Not Assessed	
2021(b) Do Something	Not Assessed		Not Assessed	
2036 Do Nothing	Not Assessed		Not Assessed	
2036 Do Something	Not Assessed		Not Assessed	

- Junction 11: B4443 Lower Road/Winterton Road/Stoke Mandeville Hospital

The B4443 Lower Road / Winterton Road / Stoke Mandeville Hospital junction has been modelled for the 2021b and 2036 scenarios as a reduction in traffic flow is anticipated in the other scenarios considered. For these scenarios, the junction has been modelled using a proposed layout that has been secured as part of the planning permissions for the Aylesbury Woodlands development and Hampden Fields development.

It should be noted that The Hampden Fields model was run with lane simulation, whereas this model has not. To be consistent with the Hampden Fields analysis, it needs to be run with the lane simulation option as a sensitivity test.

The results of the analysis are summarised in Table 18 of the TA and show that in 2036 with the SLR and ELR complete, the junction will be able to operate within capacity. However, in 2021b the junction will go significantly over capacity in the PM peak hour. This is the scenario with the Southern and Eastern Link Roads but without the A413/ A418 link. As planning permission for this link and associated development is not imminent a suitable additional mitigation measure (on top of the HF mitigation) is required.

Table 18 – Junction 11: B4443 Lower Road / Winterton Road / Stoke Mandeville Hospital

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
Changes to junction layout				
2021(b) Do Nothing	0.83	4.9	0.99	30.6
2021(b) Do Something	0.90	8.4	1.07	105.7
2036 Do Nothing	0.77	3.3	0.72	2.6
2036 Do Something	0.80	3.9	0.73	2.6

Junction 12: B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue The base and 2021a scenarios have been modelled with the existing junction, while the 2021b and 2036 have been modelled with the proposed improvement measure proposed as part of the Aylesbury Woodlands and Hampden Fields developments.

The base model of the northern junction is the same as that modelled in the Hampden Fields and Aylesbury Woodlands cumulative assessment, except for the fact that the flare length on the B4443 N is 52 metres rather than 63.9 metres. As this is lower than the agreed model, it will provide a robust analysis. The Hampden Fields model included lane simulation; this needs to be included as a sensitivity test.

The results illustrate that the junction is anticipated to operate above capacity in both the 2021(a) scenarios, with the existing layout. With the proposed layout implemented, the junction is anticipated to operate within capacity in both the AM and PM peak hours in the 2021(b) and 2036 scenarios assessed with minimal queuing.

Should the Hampden Fields and Aylesbury Woodlands developments not come forwards additional mitigation will be required in this location to accommodate the SEALR on the highway network.

Table 19 – Junction 12: B4443 Lower Road / B4443 Mandeville Road / Stadium Approach / Churchill Avenue

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	0.66	2.0	0.76	3.1
2021(a) Do Nothing	999999999.00	51.3	1.02	41.0
2021(a) Do Something	2.16	24.4	0.99	25.3
Changes to junction layout				
2021(b) Do Nothing	0.80	4.0	0.78	3.6
2021(b) Do Something	0.73	2.7	0.75	3.0
2036 Do Nothing	0.63	1.7	0.63	1.7
2036 Do Something	0.67	2.0	0.55	1.2

- Junction 13: A418 Oxford Road / Ellen Road

The A418 Oxford Road/Ellen Road/Thame Road south junction was modelled using the ARCADY module of Junctions9. The geometry appears to be appropriate. The flows have been checked and appear to be correct.

The results are summarised in Table 20 of the TA and show that the junction can operate within capacity in the situations modelled. Mitigation measures are therefore not required. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 20 – Junction 13: A148 Oxford Road / Ellen Road / Thame Road South

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.58	1.4	0.71	2.5
2021(b) Do Something	0.51	1.1	0.68	2.1
2036 Do Nothing	0.43	0.8	0.63	1.7
2036 Do Something	0.42	0.7	0.57	1.3

- Junction 14: A418 Oxford Road / Coldharbour Way

The existing junction is a four-arm roundabout, but it is proposed to come forward as a five-arm roundabout delivered as part of the planning application for the South West Aylesbury development (ref: 18/04346/AOP). This proposed layout has been used to assess the junction in 2036.

The model geometry is similar, but not identical to that produced for the Transport Assessment for Land at South West Aylesbury. There is a discrepancy with the ICD values, which appear to have been input alongside the wrong approaches to the junction. This junction needs to be re-modelled with the correct geometry.

The results show a slight worsening of performance in the AM peak with an improvement in performance in the PM peak, however at stated above, the junction needs to be remodelled with the correct geometry.

Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 21 – Junction 14: A418 Oxford Road / Coldharbour Way

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	Not Assessed		Not Assessed	
2021(b) Do Something	Not Assessed		Not Assessed	
Changes to junction layout				
2036 Do Nothing	0.93	12.2	0.98	25.4
2036 Do Something	0.95	16.3	0.94	14.0

- Junction 15: B4443 Lower Road/SEALR/ Stoke Mandeville Relief Road

This junction does not currently exist on the network; however, it will come forward as a three-arm roundabout once the HS2 delivered Stoke Mandeville Relief Road is open, and as a four-arm roundabout following the opening of the SEALR. The junction has been assessed as the four-arm roundabout proposed for the SEALR as it is currently intended that HS2 would deliver the SEALR proposed roundabout as part of the Stoke Mandeville Relief Road. Traffic flows for the eastern arm (SEALR) have been removed in the Do Nothing Scenarios.

The junction has been modelled as a linked ARCADY model with Junction 16 SEALR/ A413 Wendover Road. The geometry has been checked and generally looks appropriate and the junction has now been modelled with the pedestrian crossing function enabled. The traffic flows have been entered in passenger car units rather than vehicles and therefore the models are likely to underestimate the capacity of the junction and the results are therefore considered to be robust.

Table 22 – Junction 15: B4443 Lower Road / Stoke Mandeville Relief Road/ SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	0.61	1.5	0.54	1.2
2021(a) Do Something	0.63	1.7	0.73	2.7
2021(b) Do Nothing	0.63	1.7	0.56	1.3
2021(b) Do Something	0.77	3.4	0.79	3.7
2036 Do Nothing	0.59	1.4	0.63	1.7
2036 Do Something	0.68	2.1	0.71	2.4

The results show that the junction will operate with a significant amount of spare capacity and mitigation measures are therefore not required.

- Junction 16: A413 Wendover Road/SEALR

It has previously been agreed that this junction will be modelled as a three-arm roundabout with just SEALR and a four arm roundabout in a cumulative scenario with Hampden Fields and the Southern Link Road. The geometry has been checked and the junction has now been modelled with the pedestrian crossing function enabled.

Table 30 – Junction 16: A413 Wendover Road / SEALR

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	0.98	26.0	0.72	2.6
2021(b) Do Nothing	0.71	2.5	0.56	1.3
2021(b) Do Something	0.70	2.2	0.73	2.6
2036 Do Nothing	0.76	3.1	0.66	1.9
2036 Do Something	0.68	2.1	0.70	2.3

The proposed roundabout would operate within capacity in all scenarios except the 2021a AM peak (no Woodlands and associated infrastructure). In this scenario a maximum RFC of 0.98 is recorded with a queue of 26 vehicles. The TA states that, as performance improves in all other scenarios, the results are considered

acceptable. However, it is our view that further justification is required as to how this can be acceptable for a new junction on the highway network.

- Junction 17: A418/Eastern Link Road North

The junction is currently under construction and will be a three-arm signalised junction delivered as part of the planning application for the Aylesbury East (Kingsbrook) development (ref: 10/02649/AOP). It was modelled as a TRANSYT for the Aylesbury Woodlands development, but has been modelled using LINSIG for the SEALR application.

The model suggests a slightly different layout than was modelled for the Aylesbury Woodlands development, where the outside lane from the A418S has been changed from an ahead/right turn lane to a right turn lane only, while the left turn lane from the ELR has been changed to a short lane. There are also some minor differences in the intergreen timings and geometry. A plan should be provided showing any changes that have been made and a justification of any differences should be provided. The flows have however been checked and are correct.

This junction is expected to approach full saturation in 2036 and this is worsened slightly in the AM peak period by the application. However, the TA argues that the results from Table 31 assume a pedestrian phase in every cycle which is unlikely as pedestrian flows are likely to be relatively low here. They have therefore also modelled the junction without a pedestrian phase, Table 32, which shows the junction to have a sufficient amount of spare capacity. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 31 – Junction 17: A418 / ELR signalised junction

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	95%	15.1	94%	18.9
2021(b) Do Something	73%	14.2	72%	16.5
2036 Do Nothing	98%	35.2	97%	34.7
2036 Do Something	99%	38.2	97%	32.7

Table 32 – Junction 17: A418 / ELR signalised junction

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	65%	11.2	63%	14.8
2021(b) Do Something	63%	10.0	60%	14.0
2036 Do Nothing	82%	18.3	82%	18.9
2036 Do Something	84%	18.5	81%	18.8

We would like to see the junction modelled with a pedestrian phase every 3 cycles which is likely to be a more likely reflection of the use of the pedestrian crossing. We can then confirm our view on whether mitigation is required.

- Junctions 18: ELRn North (Village) Roundabout

The junction is proposed to come forward as a four-arm roundabout delivered as part of the planning application for the Aylesbury East development (ref:10/02649/AOP). The roundabout has been modelled as a linked roundabout with Junction 19 ELRn South using ARCADY within the Junctions9 suite.

Table 33 – Junction 18: ELRn North (Village) roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.37	0.6	0.37	0.6
2021(b) Do Something	0.41	0.7	0.36	0.6
2036 Do Nothing	0.43	0.8	0.61	1.6
2036 Do Something	0.47	0.9	0.60	1.5

The junction will operate within capacity in all scenarios. Mitigation measures are therefore not required. However, it should be noted that this junction has been modelled without pedestrian crossings. The introduction of the crossings is likely to slightly worsen the results. We therefore require the junction to be re-modelled with a pedestrian crossing. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

- Junction 19: ELRn South (Stocklake) Roundabout

The junction is proposed to come forward as a four-arm roundabout delivered as part of the planning application for the Aylesbury East development (ref:10/02649/AOP). The roundabout has been modelled as a linked roundabout with Junction 18.

Table 34 – Junction 19: ELRn South (Stocklake) roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.39	0.6	0.53	1.1
2021(b) Do Something	0.40	0.7	0.48	0.9
2036 Do Nothing	0.73	2.6	0.85	5.4
2036 Do Something	0.70	2.4	0.84	5.0

The junction will operate within capacity in all scenarios. Mitigation measures are therefore not required. However, it should be noted that this junction has been modelled without pedestrian crossings. The introduction of the crossings is likely to slightly worsen the results; therefore the junction will need to be re-modelled. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

- Junction 20: ELRs North Roundabout

This junction is proposed as a three-arm roundabout, set up as part of work on the Eastern Link Road southern section. The results in Table 35 of the TA demonstrate that the proposed roundabout would operate within capacity in all scenarios assessed and mitigation measures are therefore not required.

Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 35 – Junction 20: ELRs North roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.58	1.3	0.47	0.9
2021(b) Do Something	0.53	1.1	0.42	0.7
2036 Do Nothing	0.83	4.8	0.72	2.6
2036 Do Something	0.80	3.9	0.70	2.3

As no plan has been provided it has not been possible to check the geometry if this roundabout. A plan of the junction is therefore required.

- Junction 21: ELRs South roundabout

The junction is proposed as a four-arm roundabout, set up as part of work on the Eastern Link Road southern section. The results demonstrate that the proposed roundabout would operate within capacity in all scenarios assessed. Mitigation measures are therefore not required. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

As no plan has been provided it has not been possible to check the geometry if this roundabout. A plan of the junction is therefore required.

Table 36 – Junction 21: ELRs South roundabout

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.49	1.0	0.33	0.5
2021(b) Do Something	0.45	0.8	0.33	0.5
2036 Do Nothing	0.75	3.0	0.60	1.5
2036 Do Something	0.76	3.1	0.61	1.6

- Junction 22: Southern Link Road / New Road

The junction is proposed to come forward as a four-arm signalised junction delivered as part of the planning application for the Hampden Fields development (ref: 16/00424/AOP).

The model is similar to that produced for the Aylesbury Woodlands and Hampden Fields scheme, although the minimum green time and the intergreen times have been changed. The staging has also been amended and some of the lane widths and radii have been altered. The cycle time has been increased from 90 to 120 seconds. An explanation of why this model differs from the agreed Woodlands and Hampden Fields models is required.

Table 37 – Junction 22: Southern Link Road / New Road

Scenario	AM Peak		PM Peak	
	Max DoS	Max Q	Max DoS	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	63%	10.2	71%	10.7
2021(b) Do Something	71%	13.5	79%	16.4
2036 Do Nothing	84%	17.3	80%	25.1
2036 Do Something	81%	24.5	86%	25.2

Table 37 in the TA demonstrates that the proposals have minimal effect on the junction which will still operate within capacity. The results therefore suggest that no mitigation is required, however we will not be in a position to confirm our acceptance

of this until we have received the explanation relating to the differences to the agreed models for Woodlands and Hampden Fields referred to above.

- Junction 23: Southern Link Road / Marroway

The junction is proposed to come forward as a three-arm roundabout delivered as part of the planning application for the Hampden Fields development (ref: 16/00424/AOP) and the geometry is consistent with that produced as part of the Hampden Fields application. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

Table 38 – Junction 23: Southern Link Road / New Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	Not Assessed		Not Assessed	
2021(a) Do Nothing	Not Assessed		Not Assessed	
2021(a) Do Something	Not Assessed		Not Assessed	
2021(b) Do Nothing	0.41	0.7	0.41	0.7
2021(b) Do Something	0.55	1.2	0.59	1.4
2036 Do Nothing	0.70	2.3	0.53	1.1
2036 Do Something	0.89	7.7	0.77	3.2

The results illustrate that the proposed roundabout would operate within capacity in all scenarios although in the 2036 Do Something scenario the operation is identified as near capacity. However, queues are still relatively low and the junction still operates within capacity, so no mitigation is required.

- Junction 24: A413 / Eastcote Road

The junction has been modelled using the PICADY module of Junctions9. The geometry appears to be correct. The modelling suggest that the junction operates over capacity in the existing situation and will deteriorate in the future model options with the SEALR.

Table 39 – Junction 24: A413 Wendover Road / Eascote Road

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	4.33	164.8	1.43	44.1
2021(a) Do Nothing	8.02	176.0	1.49	56.2
2021(a) Do Something	9999999999	223.0	9999999999	155.0
2021(b) Do Nothing	3.07	215.6	2.29	124.6
2021(b) Do Something	3.11	178.9	11.45	232.8
2036 Do Nothing	3.09	243.3	2.16	91.6
2036 Do Something	1.61	94.7	3.40	145.2

As the junction in the 2036 Do Something scenario is shown to worsen significantly in the PM peak when compared to the Do Nothing scenario, three mitigation proposals have been assessed; a left in/left out arrangement, mini-roundabout and traffic signals. However, a mini roundabout or traffic signals would cause delay to the A413.

Table 40 – Junction 24: A413 Wendover Road / Eascote Road – Left In / Left Out Arrangement

Scenario	AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q
2018 Base	1.03	27.1	0.54	1.2
2021(a) Do Nothing	1.00	19.6	0.62	1.6
2021(a) Do Something	1.50	117.3	1.15	35.2
2021(b) Do Nothing	1.02	24.0	0.68	2.1
2021(b) Do Something	0.71	2.4	0.79	3.6
2036 Do Nothing	1.10	53.2	0.84	5.0
2036 Do Something	0.60	1.5	0.57	1.3

A left in/ left out arrangement would significantly improve the junction compared to the existing situation and operate within capacity in 2036 Do Something scenario.

However, the additional u-turning traffic would have an effect on the neighbouring roundabouts. Junction 7 A413/ Cambourne Avenue has been assessed with and without U-turns. The flows have been checked and are correct. Only in the 2021 (a) scenario would the u-turning traffic have a significant effect which would be temporary. In the 2036 DS scenario the A413/ Cambourne Avenue roundabout would still be within capacity with a max RFC of 0.76.

The TA explains that there have been only two collisions recorded at this junction over the five year period analysed, both ‘slight’ in severity. As a result, there is no existing collision pattern that could be exacerbated by additional traffic associated with u-turning at the roundabout.

Table 41 – Junction 7: A413 Wendover Road / Camborne Avenue – Additional U-turners

Scenario	Table 19 (Without U-Turn)				With U-Turn			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q
2021(a) Do Nothing	0.84	5.1	0.85	5.6	0.95	14.7	0.89	7.5
2021(a) Do Something	0.92	10.7	1.02	63.5	1.04	91.0	1.06	125.1
2021(b) Do Nothing	0.68	2.1	0.67	2.0	0.85	5.4	0.78	3.6
2021(b) Do Something	0.62	1.6	0.72	2.6	0.75	3.0	0.85	5.4
2036 Do Nothing	Not Assessed				0.93	11.6	0.83	4.8
2036 Do Something	Not Assessed				0.66	1.9	0.76	3.1

The TA states that the effect of the u-turning traffic on junction 16, the A413 Wendover Road / SEALR / Southern Link Road junction, is minimal with the junction operating within capacity and the u-turning traffic resulting in an increase in RFC of 1% in the PM peak hour in the 2036 scenario only. The junction will still operate with a significant amount of spare capacity. Other scenarios did not have an increase of 5% or more on a single arm and were therefore not assessed.

The ARCADY for Junction 16 Wendover Road /SEALR junction with no U-turns has only included the eastern junction, while the base situation without U-turns was modelled with two junctions as a linked ARCADY. For consistency and to ensure interaction between the two models is taken into consideration, the linked ARCADY model should be used to determine the impact of the u-turning traffic. The flows have been checked and are correct, however there is also a discrepancy in the phi value for the A413 north between the original model and the model with the u-turning traffic.

Table 42 – Junction 16: A413 Wendover Road / SEALR / Southern Link Road – Additional U-turners

Scenario	Table 25 (Without U-Turn)				With U-Turn			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q	Max RFC	Max Q
2021(a) Do Nothing	Not Assessed				Not Assessed			
2021(a) Do Something	0.88	7.2	0.66	1.9	0.88	7.0	0.68	2.1
2021(b) Do Nothing	0.65	1.9	0.56	1.3	0.66	2.0	0.57	1.3
2021(b) Do Something	0.68	2.1	0.71	2.5	0.68	2.1	0.71	2.5
2036 Do Nothing	0.72	2.5	0.66	1.9	0.72	2.5	0.67	2.0
2036 Do Something	0.67	2.0	0.68	2.2	0.67	2.0	0.69	2.2

It is unlikely that a left in/ left out arrangement would affect highway safety on the local road network and the modelling has shown that it would increase capacity at the junction and u-turners can be accommodated on the adjacent junctions. It is therefore considered an adequate mitigation measure.

In summary the following additional information is required to address the concerns raised above:

- Evidence that the connection issue with the Southern Link Road has been addressed.
- The northern Lower Road arm of the Lower Road Roundabout includes a horizontal deflection with a 90m radius. A justification as to why there is a departure of DMRB standards is required.
- Swept path drawings for the cul de sac to dwellings 8-28 Lower Road to demonstrate that a refuse vehicle can enter and exit the cul de sac.
- Junction 2: A41/ New Road also has a more than 5% increase in the 2021A scenarios and these should therefore also be subject to an assessment.
- The modelling of Junctions 2 and 3 should reflect the agreed Hampden Fields and Woodlands mitigation, including the Broughton Lane link and should be the combined model with the New Road junction. Clarification needs to be provided to confirm what changes have been made to the model for Junctions 2 and 3 in order to achieve the improved results. The traffic flows used in the model should be reviewed and updated as appropriate.
- For junctions 4, 5 and 6 some of the flows are incorrect or omitted. This needs to be corrected.
- The model for Junction 6 is similar, but not the same as the model agreed and used to test and assess the Hampden Fields development. This model needs to be identical to the Hampden Fields model or an explanation as to why the model is not consistent with the Hampden Fields model is required.
- Junction 14 will need to be re-modelled with the right geometry.
- Junctions 18 and 19 will need to be re-modelled with a pedestrian crossing
- Drawings should be provided for Junction 17, 20 and 21 to demonstrate that the models reflect the drawings.
- Junction 16, the linked ARCADY model should be used to determine the impact of the u-turning traffic. There is also a discrepancy in the phi value for the A413 north between the original model and the model with the u-turning traffic.
- Junction 22, an explanation of why this model differs from the agreed Woodlands and Hampden Fields models is required.
- Justification of the acceptability of the assessment results for the A413 Wendover Road/SEALR junction.

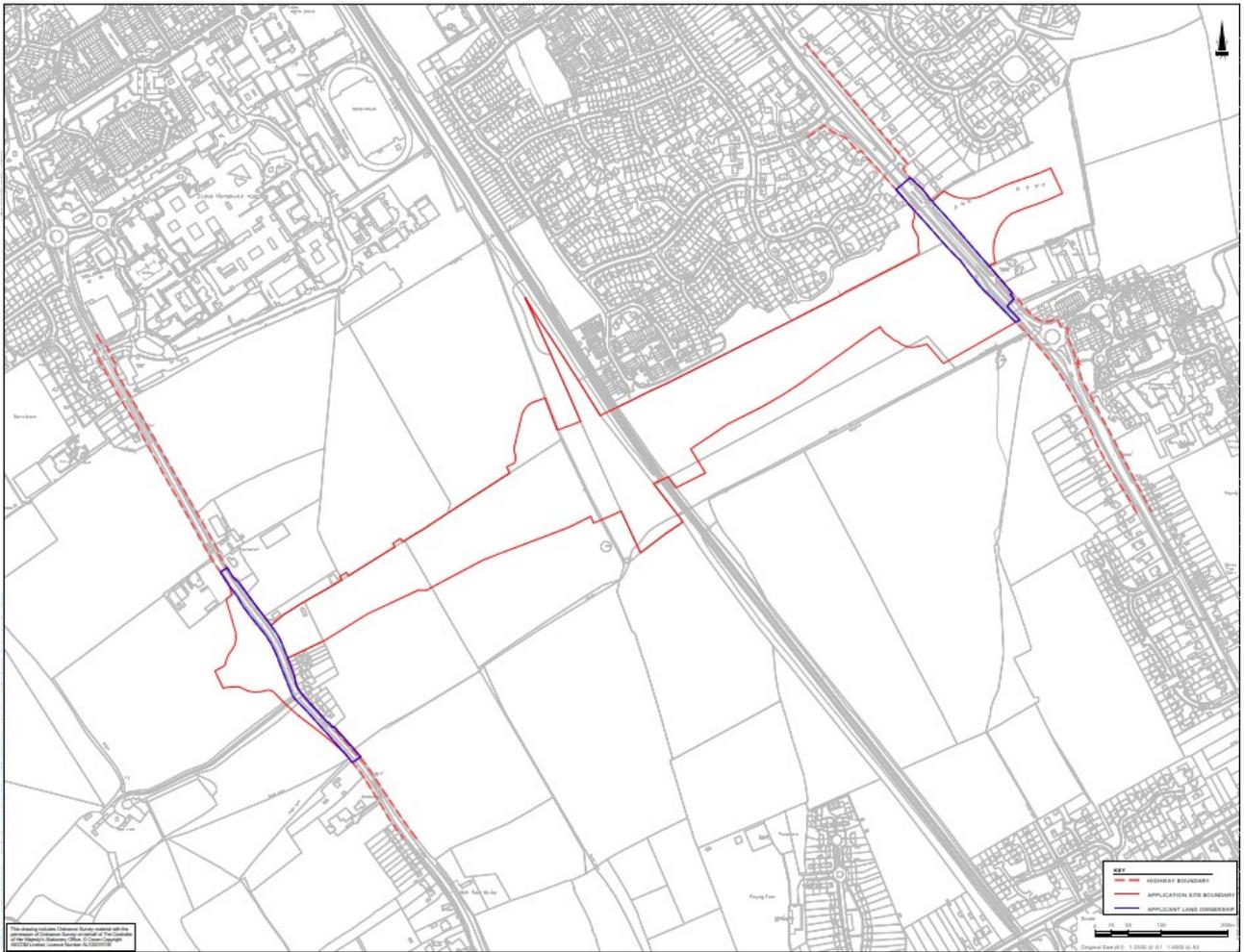
I trust that these comments have been of assistance.

Yours sincerely

Sarah Halsey

***Highways Development
Management Planning Growth &
Sustainability***

Appendix C: Plans



Location Plan



Appendix D: Schedule of submitted documents

Sheet Layout Overview 60535364-ACM-00-XX-SKE-CE-0001 D Updated to include changes to Lower Road and Wendover Road Roundabouts, widening of southern footway to provide footway/cycleway, passive provision for future pedestrian/cycle connection to southern footway/cycleway, removal of armillary sphere, additional agricultural access off Lower Road roundabout, bridge updated to three-span arrangement, incorporation of UKPN corridor to south and associated amendments to drainage/attenuation.

Application Boundary 60535364-ACM-00-XX-SKE-CE-0002 A

Location Plan 60535364-ACM-00-XX-SKE-CE-0003 A

General Arrangement 60535364-ACM-00-XX-SKE-CE-0100 G As per Overview Plan.

General Arrangement 60535364-ACM-00-XX-SKE-CE-0101 G

General Arrangement 60535364-ACM-00-XX-SKE-CE-0102 G

General Arrangement 60535364-ACM-00-XX-SKE-CE-0103 G

General Arrangement 60535364-ACM-00-XX-SKE-CE-0104 G

Topographic Survey 60535364-ACM-00-XX-SKE-CE-0105 B Shadow of proposals updated in line with Overview Plan.

Topographic Survey 60535364-ACM-00-XX-SKE-CE-0106 B

Topographic Survey 60535364-ACM-00-XX-SKE-CE-0107 B

Topographic Survey 60535364-ACM-00-XX-SKE-CE-0108 B

Topographic Survey 60535364-ACM-00-XX-SKE-CE-0109 B

Existing Utilities 60535364-ACM-00-XX-SKE-CE-0110 B Shadow of proposals updated in line with Overview Plan.

Existing Utilities 60535364-ACM-00-XX-SKE-CE-0111 B

Existing Utilities 60535364-ACM-00-XX-SKE-CE-0112 B

Existing Utilities 60535364-ACM-00-XX-SKE-CE-0113 B

Existing Utilities 60535364-ACM-00-XX-SKE-CE-0114 A B

Swept Paths 60535364-ACM-00-XX-SKE-CE-0115 B Updated to revised geometry

Swept Paths 60535364-ACM-00-XX-SKE-CE-0116 B Updated to revised geometry

Swept Paths 60535364-ACM-00-XX-SKE-CE-0117 B Updated to revised geometry

Swept Paths 60535364-ACM-00-XX-SKE-CE-0118 B Updated to revised geometry

Swept Paths 60535364-ACM-00-XX-SKE-CE-0119 B Updated to revised geometry

Swept Paths 60535364-ACM-00-XX-SKE-CE-0052 A Additional swept paths requested

Swept Paths 60535364-ACM-00-XX-SKE-CE-0053 A Additional swept paths requested

Roundabout Geometries 60535364-ACM-00-XX-SKE-CE-0120 B Updated to revised geometry

Roundabout Geometries 60535364-ACM-00-XX-SKE-CE-0121 B

Roundabout Geometries 60535364-ACM-00-XX-SKE-CE-0122 B

Roundabout Geometries 60535364-ACM-00-XX-SKE-CE-0123 C

Proposed Utility Diversions 60535364-ACM-00-XX-SKE-CE-0124 B Updates to proposed diversion routes

Proposed Utility Diversions 60535364-ACM-00-XX-SKE-CE-0125 B

Proposed Utility Diversions 60535364-ACM-00-XX-SKE-CE-0126 B

Proposed Utility Diversions 60535364-ACM-00-XX-SKE-CE-0127 B

Proposed Utility Diversions 60535364-ACM-00-XX-SKE-CE-0128 B

Proposed Utility Diversion Overview 60535364-ACM-00-XX-SKE-CE-0129 B Additional overview drawing

Long-section 60535364-ACM-00-XX-SKE-CE-0130 B Updated to show revised bridge

Cross-sections 60535364-ACM-00-XX-SKE-CE-0140 B Amendment to reflect reduced verge and increased width of footway/cycleway on southern side of SEALR.

Site Clearance 60535364-ACM-00-XX-SKE-CE-0200 B Updated to reflect revised proposals including updated vegetation

clearance Site Clearance 60535364-ACM-00-XX-SKE-CE-0201 B for UKPN corridor.

Site Clearance 60535364-ACM-00-XX-SKE-CE-0202 B

Site Clearance 60535364-ACM-00-XX-SKE-CE-0203 B

Site Clearance 60535364-ACM-00-XX-SKE-CE-0204 B

Drainage 60535364-ACM-00-XX-SKE-CE-0500 C Updated and replaced by 60535364-ACM-00-XX-SKE-CE-0015 & 0016

Drainage 60535364-ACM-00-XX-SKE-CE-0501 C

Drainage 60535364-ACM-00-XX-SKE-CE-0502 C

Drainage 60535364-ACM-00-XX-SKE-CE-0503 C

Drainage 60535364-ACM-00-XX-SKE-CE-0504 C

Drainage 60535364-ACM-00-XX-SKE-CE-0015 - 12 Updated to reflect revised proposals

Drainage 60535364-ACM-00-XX-SKE-CE-0016 - 10 Updated to reflect revised proposals

Signing and Lining 60535364-ACM-00-XX-SKE-CE-1200 B Updated to reflect revised proposals

Signing and Lining 60535364-ACM-00-XX-SKE-CE-1201 B

Signing and Lining 60535364-ACM-00-XX-SKE-CE-1202 B
Signing and Lining 60535364-ACM-00-XX-SKE-CE-1203 B
Signing and Lining 60535364-ACM-00-XX-SKE-CE-1204 B
Lighting Layout 60535364-ACM-00-XX-SKE-CE-1300 C Updated to reflect revised proposals
Lighting Layout 60535364-ACM-00-XX-SKE-CE-1301 C
Lighting Layout 60535364-ACM-00-XX-SKE-CE-1302 C
Lighting Layout 60535364-ACM-00-XX-SKE-CE-1303 C
Lighting Layout 60535364-ACM-00-XX-SKE-CE-1304 C
Bridge Structure 60535364-M001-101-DWG-101 2 S1_BR_Z_Z-DR-CB-0002 & 0003
Bridge Structure 60535364-M001-101-DWG-102 2
Bridge Structure 60535364-M001-101-DWG-103 2
Bridge Structure 60535364-M001-101-DWG-104 2
Bridge Structure 60614526-ACM-SBR-S1_BR_Z_ZDR- CB-0002
N/A P01 New drawings showing three-span bridge structure
Bridge Structure 60614526-ACM-SBR-S1_BR_Z_ZDR- CB-0003 P01
Landscape Proposals 60617526-ACM-ELS-S1_ML_ZZ-DRLV- 0001P04.1 Updated landscape proposals,
including inclusion of replacement public open space.
Landscape Proposals 60617526-ACM-ELS-S1_ML_ZZ-DRLV- 0002 P04.1
Landscape Proposals 60617526-ACM-ELS-S1_ML_ZZ-DRLV- 0003 P04.1
Landscape Proposals 60617526-ACM-ELS-S1_ML_ZZ-DRLV- 0004 P04.1
Landscape Proposals 60617526-ACM-ELS-S1_ML_ZZ-DRLV-0005 P04.1
Construction Compounds 60535364-ACM-00-XX-SKE-CE-2000 C
Construction Traffic Routeing 60535364-ACM-00-XX-SKE-CE-2001
County Farm Cottages Vis Splay 60535364-ACM-00-XX-SKE-CE-0030 A Additional plan in response to
consultee comments.
Scheme Overview 60535364-ACM-00-XX-SKE-CE-0040 N/A B Additional plan showing scheme overview
alongside long section.
Planning Scheme Amendments 60535364-ACM-00-XX-SKE-CE-0060 - Illustrates key changes to the
scheme since planning submission.
Flood Depth 60535364-SHT-0000-C-0070 N/A 1 New drawing showing flood depth difference map
Historic Alignment Plan 60535364-SKE-CE-0012 B Plan comparing current alignment with public
consultation alignment.

Appendix E: EIA Summary

The application is accompanied by an Environmental Statement, updated by the ES Addendum. This encompasses fifteen chapters, appendices and a non-technical summary.

- Chapter 1 provides an introduction to the project and includes an overview of the proposed scheme, information on the need for the proposed scheme and the objectives of the proposed scheme. It also sets out the legislation and policy framework, the purpose of the Environmental Statement, the Scope and content of the Environmental Statement and provides contacts for the agent project team.
- Chapter 2 provides further details on the project, the programme should planning permission be granted the proposed site and its surroundings. The ES Addendum gives information on the competence of the people undertaking the ES.
- Chapter 3 looks at alternatives considered. These include alternative route options as well as 'no development' and 'do minimum' alternatives. The ES Addendum provides additional information on how the alternatives were considered and the final option chosen (option 10, sub option E).
- Chapter 4 provides information on methodology. It summaries comments received in the EIA Scoping Opinion, provides information on the how the baseline conditions were considered and how effects where assessed. It also sets out the DMRB (Design Manual for Roads and Bridges matrix for classifying effects and identifies the developments that were identified as potentially having cumulative effects with the project. Cumulative impacts are considered within each chapter and conclusions are made in Chapter 14. The ES Addendum states that no further assessment is required in regard to major accidents and disasters. The risk of major accidents and/or disasters is not considered to be high, or any more likely than the risk associated with other dual carriageways and roundabouts and therefore these are not considered further.
- Chapter 5 presents the assessment of effects of the proposed scheme on human health and the ES Addendum adds to this (including consideration of cumulative effects), concluding the following:
 - Access to healthcare services and other social infrastructure: Construction effects will be mitigated through the implementation of traffic management measures resulting in an overall neutral effect on health and wellbeing. During the operation phase, the scheme will improve connectivity to healthcare services and other community facilities located in the town centre of Aylesbury and Stoke Mandeville as the congestion reduced in the local road network in an overall positive effect.
 - Access to open space: the scheme will reduce access to open space during the construction period resulting in a negative effect on health. During the operation phase the scheme will provide replacement open space accessible from the new shared/cycle footway resulting in an overall neutral effect on health.
 - Air Quality, Noise and Neighbourhood Amenity: The scheme will cause temporary negative effects arising from dust, noise and vibration; however, a number of mitigation measures will be implemented prior to the commencement of construction to further reduce these temporary impacts resulting in a neutral effect on the potential health impact. During the operation phase, air quality is expected to improve around existing communities due to the reduction in congestion within the local road network having a positive effect on health and wellbeing. However, noise and vibration is expected to result

in a negative health and wellbeing effect on nearby residential receptors. Further mitigation would be required to reduce the significant noise and vibration effects, to include potential noise insulation packages to dwellings most affected by the scheme. Chapter 9 of the ES Addendum provides updates to the noise and vibration assessment since the March 2020 ES to also reflect changes to future traffic forecasts and data in the area. Residual and cumulative effects are considered. Table 9.13 gives a summary of long term operational residual effects identifying that 16 (<1%) properties will experience a high adverse noise level change and major adverse residual effect and 342 (7%) properties will experience a medium adverse noise level change and a moderate adverse residual effect. Further mitigation options including low/very low noise surfacing and improved glazing will be considered during the detailed design stage (see also Chapter 11 below). Chapter 10 of the ES Addendum provides an update to the assessment of effects on air quality that are likely to arise from construction and operation of the scheme, originally carried out as part of the March 2020 ES, to include impact of updated traffic data. The updated assessment of air quality based on traffic data for the year 2036 concludes that the scheme will not result in any significant effects.

- Active travel: the scheme will disrupt and divert the existing PRoW network and cycling routes during the construction phase resulting in a loss of amenity as users are diverted from routes within the agricultural fields towards the main roads which is expected to have a negative effect on the health and wellbeing of users walking on these routes. During the operation phase, the scheme will provide high quality walking and cycling facilities including an integrated east-west cycle route which will improve accessibility to open spaces in the local area which is expected to have a positive effect on the health and wellbeing of non-motorised users.
 - Provision of employment: the scheme will provide temporary local employment opportunities during the construction period leading to a positive effect on the health and wellbeing of the local workforce. During the operation phase, the scheme will also improve accessibility and connectivity to local businesses and employment spaces resulting in an overall positive effect on the health and wellbeing of the local workforce.
 - Social cohesion and lifetime neighbourhoods: the scheme, during the operation phase, will reduce severance through the reduction in traffic congestion on local road networks and will enhance walking and cycling facilities and open space provision. This will have a positive effect on the health and wellbeing of neighbourhoods.
- Chapter 6 focusses on Cultural Heritage. The assessment focuses upon the effects of removing known and potential archaeological remains within the site, and effects on the setting of listed buildings. The chapter concludes that the scheme is likely to have a significant residual effect on buried archaeological assets of Roman date, and potentially Bronze Age date, within the Site, through their removal as a result of construction activities. A programme of archaeological investigation to identify, excavate, record and report on these remains has been proposed. It acknowledges this cannot remove impact the as the archaeological remains are not renewable or replaceable and states that therefore the residual significance of effect would still be significant.
 - Chapter 7 focuses on Landscape and Visual Effects and reports the assessment of effects upon the surrounding landscape character and existing views into the Site. Chapter 8 of the ES Addendum identifies and assesses the potential effects on landscape and visual receptors (including a night time assessment) that are likely to arise from the construction

and operation of the scheme following comments received from the Authority and as a result of scheme changes detailed. No significant residual effects are anticipated when the proposed landscaping is fully established (Year 15 of operation). This is due to the extent of planting proposed on the embankments helping to screen views and integrate the Proposed Scheme within the surrounding landscape and the pattern of landcover features. The night time assessment identifies no likely significant effects during construction, the first year of operation or at year fifteen. The scheme will be seen in the context of the built up area of Aylesbury and the existing lighting columns on Wendover Road and Lower Road, adding to the existing suburban district brightness. In terms of additional cumulative effects resulting from the scheme, in combination with other built, approved and in planning developments it is not considered to be significant and while a range of cumulative effects can be anticipated, these will be attributed to the wider context of the large mixed use developments and separate sections of the wider Aylesbury orbital route which will bring about substantial change to the landscape and visual amenity resource surrounding the scheme.

- Chapter 8 focuses on Ecology and Nature Conservation. Chapter 7 of the ES Addendum gives an update on the assessments following the subsequent protected species surveys undertaken between March and August 2020. In addition, the assessment considers the results of the Biodiversity Net Gain Report (October 2019) which was subsequently updated in November 2020. The initial classification of effects pre-mitigation has identified significant adverse impacts on foraging and commuting bats as a result of the scheme. In addition, the initial classification of effects pre-mitigation has identified non-significant adverse impacts on a range of features which would benefit from additional mitigation and/or require additional mitigation to avoid an offence under relevant wildlife legislation; residual effects were also considered. Considering the embedded measures within the design of the scheme, effects (including residual effects) on ecological features have been considered not to be significant, with the exception of the removal and fragmentation of bat commuting and foraging habitat, for which there was considered to be potential for a moderate adverse effect. Additional measures to ensure that there are no significant residual effects on commuting and foraging bats, in relation to on-site habitat provision, are detailed within the LEMP for the Proposed Scheme; considering these measures, residual effects on commuting and foraging bats are deemed not to be significant. Additional mitigation measures (including continued management and monitoring activities) have been identified in relation to habitats (e.g. hedgerows) and species (e.g. bats, nesting birds).
- Chapter 9 focusses on Geology and Soils and reports the impacts of the scheme with respect to changes in ground conditions, land quality and groundwater and its effects on people, property and the water environment. It concludes that no likely significant effects have been identified with regard to the scheme.
- Chapter 10 is titled materials and identifies and addresses the potential impacts and effects of the scheme in relation to the use of material resources and the generation of waste. It concludes that no likely significant effects on material resources and waste have been identified.
- Chapter 11 is focussed on Noise and Vibration during construction and operation of the Proposed Scheme. It concludes that with the implementation of mitigation measures through the final CEMP, no significant effects are predicted during the construction phase. It predicts major and moderate adverse effects (which are considered significant for a

number of properties in all scenarios both within and beyond 1km from the scheme. It states that low noise road surfacing has the potential to slightly reduce overall scheme impacts but that implementation of this additional mitigation would not alter the assessment, and predicted noise levels and resulting effects will remain unchanged. It also states that no significant effects are predicted for Noise Important Areas.

- Chapter 12 relates to people and communities and relates to the impact of the scheme on people and communities including; vehicle travellers, pedestrians, equestrians, cyclists, property, development land, land used by the community and agricultural land. In relation to driver stress and non-motorised uses it concludes the overall effect of the scheme is not considered to be significant.
- Chapter 13 focuses on Road Drainage and the Water Environment. Subject to the measures outlined in the chapter, it concludes that there are no likely significant effects in relation to road drainage and the water environment have been identified with regard to the scheme though some slight adverse, but insignificant, effects have been identified.
- Chapter 14 considers the effect interactions in relation to other nearby developments and land allocations, habitats and notable species, air quality and noise. A number of potentially significant effects (on pedestrians, cyclists, road users and existing public amenity space) are identified.
- Chapter 15 summaries the environmental effects.

Chapter 6 of the ES Addendum relates to an assessment of climate change. It is stated that there will be unavoidable GHG emissions resulting from both the construction and operation of the scheme as materials, energy and fuel use, and transport would be required. An assessment of the magnitude and significance of these emissions have been deemed as a minor adverse significance. The significance of operational emissions in the future may become more significant as the UK moves towards net zero in 2050. A number of climate change hazards have been identified for the construction and operation of the scheme, which may lead to range of potential impacts to the scheme itself. In consideration of the embedded design measures, all residual significance levels have been determined as not significant. Due to the minor adverse significance of the GHG emissions and existing mitigation measures proposed, no further mitigation measures are proposed at this time. Additional mitigation may be required during the operational phase as the UK moves towards net zero in 2050 and emissions are likely to become more significant. Climate change vulnerability has been assessed as not significant during construction and operations, in consideration of the measures already proposed no additional mitigation measures are proposed.