

## Technical Note 1: Abingdon Southern Bypass



Project: Land at Culham  
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### 1.0 Introduction

- 1.1 This technical note has been prepared by Motion on behalf of Mr and Mrs Wilson, residents of [REDACTED] South Oxfordshire. The technical note is written in relation to those policies, paragraphs and appendices of the South Oxfordshire Local Plan 2034 (Final Publication Version) (hereafter referred to as "the 2034 Plan") which refer to the Abingdon Southern Bypass, namely:
- ▶ Policy TRANS3
  - ▶ Paragraphs 7.15-7.18
  - ▶ Appendix 5 (Page 218: Plan – Abingdon Southern Bypass)
- 1.2 The above policies, paragraphs and appendices seek to safeguard land to the south of Abingdon and to east of the River Thames in South Oxfordshire for a new highway bypass of Abingdon including a new crossing of the River Thames (hereafter referred to as "the Abingdon Southern Bypass").
- 1.3 Our terms of reference for this commission are to:
- ▶ Review costs for the Abingdon Southern Bypass;
  - ▶ Investigate the technical case for the Abingdon Southern Bypass; and
  - ▶ Provide comment on the likelihood of the Abingdon Southern Bypass being delivered during the lifetime of the 2034 Plan or in the next plan period post 2034.
- 1.4 In preparing this technical note Motion has reviewed the following documents:
- ▶ South Oxfordshire Local Plan 2034 (Second Preferred Options).
  - ▶ Oxfordshire Infrastructure Strategy Stage One Report (hereafter referred to as "OxIS").
  - ▶ South Oxfordshire Local Plan, Sustainability Appraisal of the Publication Version of the Local Plan, September 2017 (hereafter referred to as "SA").
  - ▶ Oxfordshire County Council Local Transport Plan 2015 – 2031 (hereafter referred to as "LTP4").
  - ▶ Connecting Oxfordshire: Local Transport Plan 2015 – 2031 Area Strategy for Science Vale (hereafter referred to as the "Science Vale Strategy")

### 2.0 Cost of Abingdon Southern Bypass

- 2.1 In considering the provision of and suitability of infrastructure, it is important to understand any constraints to delivering that infrastructure and the costs of delivering that infrastructure.
- 2.2 The Abingdon Southern Bypass follows a challenging route. Physically it would require:
- ▶ The full length to be raised above the 1 in 100 year flood level plus an allowance for climate change;
  - ▶ A new crossing of the River Ock;
  - ▶ A new crossing of the River Thames;
  - ▶ Crossings of the Sandford Brook, Mere Dyke and Oday ditches; and
  - ▶ Crossing a flooded gravel works now a reservoir.

- 2.3 As the Abingdon Southern Bypass will cut through functional flood plain and be raised above 1:100 year flood level plus an allowance for climate change, embankments and structures would need to be designed to allow the conveyance of flood waters across the flood plain. This is to prevent the road acting as a damn and increasing the risk of flooding to existing properties to the south of Abingdon. The EA has also advised that bridge abutments should be kept outside the 1 in 100 year plus climate change extent. These physical constraints mean that much of the Abingdon Southern Bypass will need to be carried either on bridge structure or else significant earthwork structures.
- 2.4 Motion understands that there are also several archaeological features along the route which will influence its location. In addition, there is a listed building (Stonehill Farm) and its setting that the protected line could adversely affect. Given the already constrained nature of the route, it would be very difficult to alter the design of the Abingdon Southern Bypass to mitigate or avoid archaeological features and the listed building without incurring further cost that could be substantial.
- 2.5 Having regard to these requirements, it is expected that the cost of the Abingdon Southern Bypass will be significantly higher than an equivalent length of road which did not require five new river crossings and which did not cut across functional flood plain.
- 2.6 In this context, having regard to the number of structures required and the EA's requirements, Motion has undertaken an outline cost estimate of the Abingdon Southern Bypass. This amounts to £35million (£35M). This figure excludes any environmental mitigation works that may be required by the EA or English Heritage.

### **3.0 Technical case for the Abingdon Southern Bypass**

- 3.1 The 2034 Plan states at paragraph 7.15 that:
- "...improvements will also need to be complimented by relevant and reasonable upgrades to surrounding highway networks to mitigate impacts of development..."*
- 3.2 Paragraph 7.16 continues:
- "To enable further delivery of key transport infrastructure that will support development within the plan, there is a need to safeguard land to ensure that any proposals for development do not prejudice their future delivery."*
- 3.3 Reference to safeguarding land for a bypass for Southern Abingdon is then included in Policy TRANS3.
- 3.4 Paragraphs 7.15 and 7.16 suggest that safeguarded land established by Policy TRANS3 is required for two purposes:
- ▶ Reasonable upgrades are required to mitigate the impacts of proposed development (paragraph 7.15); and
  - ▶ To protect the delivery of key infrastructure (paragraph 7.16).
- 3.5 The Abingdon Southern Bypass is considered below in the context of each of these stated reasons.

#### ***Reasonable upgrades to mitigate the impacts of proposed development***

- 3.6 Paragraph 7.15 links the need to provide reasonable upgrades to the highway network with mitigating the impacts of proposed development.
- 3.7 As established above, due to the complexities and constraints associated with delivering the Abingdon Southern Bypass, it is expected that the cost of the road would amount to some £35M. It might reasonably be assumed that a roof tax of £2,000 per dwelling could be obtained from planned development to cover an individual piece of infrastructure such as the Abingdon Southern Bypass. On this basis, development in the order of 15,000 – 20,000 new homes would be needed to fund the Abingdon Southern Bypass.

- 3.8 This development would need to be exclusively reliant on the Abingdon Southern Bypass for highway mitigation and no other highway mitigation schemes in order to avoid developer contributions being diluted into other highway mitigation schemes. This would mean that the development would most likely need to be located to the south of Abingdon.
- 3.9 There is currently no development identified in either of these areas. Moreover much of the land in question is located in flood risk zones 2 and 3 which reduces the area of search for sites in this location both during the plan period up to 2034 and post 2034. The likelihood of land being allocated in this area for the scale of housing needed to fund the Abingdon Southern Bypass at any point in the future is therefore extremely slim.
- 3.10 In this context, the Abingdon Southern Bypass cannot be considered to be a “reasonable upgrade” to mitigate the impacts of proposed development. The reason for safeguarding land described in paragraph 7.15 does not therefore apply to the Abingdon Southern Bypass.

**Protect the delivery of key infrastructure**

- 3.11 OxIS has been prepared by Oxfordshire County Council (OCC). It seeks to identify, plan for and manage the delivery of the infrastructure required to sustain the new homes and jobs which are planned for the County to 2040 and beyond. The aim is that OxIS will provide the six Local Planning Authorities (LPA) in Oxfordshire with a common platform to:
- ▶ Set out the core projects and investment required to ensure Oxfordshire can continue to grow sustainably and successfully.
  - ▶ Strengthen our justification and evidence for securing funding, e.g. from strategic development sites or in business case development for external funding.
  - ▶ Promote the Oxfordshire ‘brand’ within the England’s Economic Heartland (EEH) as well as within the sub-national, national and international contexts.
  - ▶ Develop the attractiveness of Oxfordshire as a business investment location.
  - ▶ Facilitate informed dialogue with communities, developers and key stakeholders on the growth planned and the challenges and opportunities this brings.
  - ▶ Deliver sustainable development in Oxfordshire, for both housing and employment, by identifying the infrastructure requirements to support it.
- 3.12 The current version of the OxIS includes the “Abingdon Bypass” on a “wish list” of infrastructure schemes within “Corridor 2 - Knowledge Spine South”. However the multi-criteria assessment score of the ABS is low and a review of the assessment criteria suggests that it should, in fact, be lower than shown. Combined with an aspiration of raising £650M to pay for the infrastructure “wish list” in Corridor 2 alone, it is extremely unlikely that funding will be made available for the ABS within the OxIS lifespan which is up to 2040. This extends past this local plan period and a long way into the next.
- 3.13 LTP4 is supported by a series of Area Transport Strategies (ATS) that have been identified as areas within Oxfordshire that require specific strategic transport interventions in order to sustain development in these areas in the long term. Abingdon itself is not located in any of the areas identified in LTP4 as requiring ATSs’ although is referred to in the Science Vale Area ATS.
- 3.14 LTP4 does not identify the Abingdon Southern Bypass as a scheme for implementation during the period covered by LTP4. Instead the Abingdon Southern Bypass is given a non-specific timescale and identified under Proposal SV4, which relates to safeguarding and states:
- “Proposal SV4 – to support safeguarding of land through the local plan process to enable delivery of strategic pieces of infrastructure considered likely to be required in the future, and beyond this plan period.”*
- 3.15 And Proposal SV4.2, which states:

*"SV4.2 Safeguarding and protecting the ability to provide a South Abingdon road if significant additional development is allocated to the south of the town in the future. This will provide a direct link from west Abingdon to the A415 to the east and relieve congestion in Abingdon town centre."*

3.16 LTP4 also provides associated text with Proposal SV4 which states:

*"40. We will support South Oxfordshire and the Vale of the White Horse District Councils in safeguarding land for schemes in areas where it is possible that significant development may occur in the future."*

3.17 The above policies suggest that the inclusion of the Abingdon Southern Bypass by OCC in LTP4 is solely in response to the possibility of significant development being provided at some future date beyond the lifetime of LTP4 ie after 2031. It also suggests that OCC anticipate that the Abingdon Southern Bypass would be developer funded as the requirement for the Abingdon Southern Bypass would be driven by the allocation of significant development.

3.18 In this context, the Abingdon Southern Bypass cannot be considered to be "key transport infrastructure". The reason for safeguarding land described in paragraph 7.16 does not therefore apply to the Abingdon Southern Bypass.

## **4.0 Summary & Conclusion**

4.1 The evidence presented and referred to by South Oxfordshire in support of the South Oxfordshire Local Plan 2034 (Final Publication Version) demonstrates that the Abingdon Southern Bypass:

- ▶ Is not considered to be strategic infrastructure;
- ▶ Would cross functional flood plain;
- ▶ Would require 5 new river crossings including a new crossing of the river Thames;
- ▶ Would cross a flooded gravel works now a reservoir;
- ▶ Would need to be solely funded by significant new development (in the scale of 15,000 – 20,000 dwellings) of which currently there is none identified; and
- ▶ Would require at, a future date beyond 2034, some 15,000-20,000 new dwellings to be constructed on land which is substantially located within flood risk zones 2 and 3 and therefore an inappropriate location for residential development.

4.2 Based on the above, it is concluded that there is no prospect of a bypass to the south of Abingdon and new river Thames crossing being delivered prior to 2034 and at the very best an extremely low prospect of it being delivered after 2034.

4.3 The inclusion of land to safeguard land for a bypass to the south of Abingdon and new river Thames crossing in policy TRANS3 is therefore contrary to the purposes for safeguarding land stated at paragraphs 7.15 and 7.16 in that:

- ▶ It cannot be considered to be a "reasonable upgrade" to mitigate the impacts of proposed development as such development has little if any prospect of being built; and
- ▶ It cannot be considered to be "key transport infrastructure" as it does not appear in any infrastructure plan for Oxfordshire as a requirement in the period up to 2040 or beyond.

4.4 There are no grounds for retaining land to safeguard a bypass to the south of Abingdon and new river Thames crossing in policy TRANS3.