Flax Bourton Parish Council

West of England
Joint Spatial Plan
Publication Document:
November 2017

Review of Evidence
Presented on the
Nailsea Corridor
Improvement

Report to Flax Bourton
Parish Council

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1. INTRODUCTION

1.1 Key Transport Consultants Ltd. (KTC) was appointed by Flax Bourton Parish Council (FBPC) in December 2017 to provide professional transport planning advice with respect to FBPC’s response to a consultation on the West of England (WoE) Joint Spatial Plan (JSP) Publication Document November 2017 (PD), which closes on Wednesday 10th January 2018.

1.2 In particular, KTC were instructed to advise on the proposals for a proposed road, named in the JSP as the Nailsea Corridor Improvement, focusing particularly on the proposals in the vicinity of Flax Bourton village.

Joint Spatial Plan

1.3 The four WoE Local Authorities (LAs), Bath and North East Somerset (B&NES), Bristol City Council (BCC), North Somerset Council (NSC) and South Gloucestershire Council (SGC), have worked together to produce the JSP. The purpose of the JSP is to set out:

- strategic policies and principles that are to be applied when determining the amount of new development land for housing and employment in the period to 2036;
- the requirements for improved transport and other infrastructure; and
- the distribution of the development between the four LAs, and the most appropriate and sustainable spatial locations for strategic scale development.

1.4 Two previous consultations have been held on the emerging proposals. The first was titled the Issues and Options Consultation and was held between November 2015 and January 2016. The second consultation, titled Towards an Emerging Spatial Strategy, was held in November and December 2016. For both consultations the spatial planning proposals were accompanied by supporting reports on the ongoing transport studies.

1.5 The JSP PD sets out the WoE LAs’ final proposals for sustainable growth to enable the sub-region of the WoE to meet its housing, employment and infrastructure needs for the period to 2036. The JSP PD will be submitted for scrutiny in a Public Examination in 2018. Responses to the current consultation on the JSP PD will be presented to the Public Examination for consideration by a Planning Inspector. After examination and receipt of the Inspector’s recommendations, the final JSP can be adopted by the WoE LAs. The JSP will then guide the review and production of more detailed plans of the individual LAs in their own Local Plans.

1.6 Of particular importance to the Flax Bourton area, the JSP proposes extensive development around Backwell and Nailsea and identifies proposals for developing a new road passing south
of Nailsea and connecting Clevedon to the western end of the A370 Long Ashton bypass to the east of Flax Bourton village. This proposed new road is referred to as the Nailsea Corridor Improvements (NCI).

1.7 A number of supporting documents have been published in support of the JSP PD. With respect to the NCI, the Joint Transport Study (JTS) Final Report published in October 2017 is a key supporting document because it includes a Transport Vision looking ahead to 2036. The Transport Vision is intended to tackle existing pressure on the highway and public transport networks while enabling the sub-region to meet the increasing travel demand associated with future growth. The Transport Vision identifies a range of transport schemes for delivery within the JSP period to 2036, including the NCI.

**Purpose of Report**

1.8 The purpose of this report is to:

(i) review the JSP and JTS documents to identify and understand the NCI proposals;

(ii) confirm the scope of information on NCI currently in the public domain;

(iii) comment on the findings of the above investigations and the implications for the section of the NCI route in the vicinity of Flax Bourton; and

(iv) draw conclusions and make recommendations to FBPC on its response to the current JSP consultation.

**Format of Report**

1.9 The report has been prepared in a format that is intended to be suitable for onward submission, under FBPC cover, as part of FBPC’s representation to the JSP PD consultation.

1.10 The remainder of the report is focussed on the NCI and is arranged as follows. Section two reviews the evolution of the JSP and highlights changes to the NCI in the earlier consultations. Section three reviews the final JSP PD document and selected supporting documents are reviewed in section four. The results of further enquiries are reported in section five and, in light of all the previous findings, comment on the proposals for the NCI is provided in section six. A summary, conclusions and recommendations are provided in section seven.
2. EVOLUTION OF THE JOINT SPATIAL PLAN

This section of the report reviews the evolution of the JSP through two previous rounds of consultation.

Previous Consultations

2.1 Leading up to the ongoing consultation on the JSP PD, two previous consultations were undertaken.

Issues and Options - November 2015

2.2 The first consultation on JSP was launched in November 2015 and presented a JSP Issues and Options Report, which examined the priorities for the JSP. This was supported by a Transport Topic Paper dated November 2015, which outlined some of the transport challenges in the sub-region, focussing on travel choices and congestion, and assessed various strategies for distribution of development within the sub-region.

2.3 Also in November 2015 a JTS Key Principles Report was published. This document presented the first output from the JTS, which was undertaken by consultant Atkins under a joint appointment from the four WoE LAs. The JTS Key Principles Report included:

- a high-level transport vision identifying goals, challenges and objectives;
- guiding principles and;
- in section six, a range of Future Transport Concepts. These were described as presenting "the likely envelope of potential solutions that could be delivered to tackle transport challenges and support growth up to 2036". The range of concepts included “Strategic Corridor Packages” which included at Appendix A, “A370 (bus, highway, active travel)".

There is no mention within the JTS Key Principles Report of the NCI.

2.4 FBPC responded to the November 2015 consultation in January 2016. Among other comments, FBPC noted:

The village is dissected by the A370 which a transport study commissioned by Backwell Parish Council demonstrated is already close to capacity. Existing forecasts show further deterioration.
Towards the Emerging Spatial Strategy – November 2016

2.5 A second consultation commenced in November 2016 and sought views on an Emerging Spatial Strategy. Figure 5 of the JSP consultation document showed indicative strategic development locations and included a number of schematic corridors that were annotated as “Strategic Transport Improvements”. One of these corridors extended from central Bristol to Clevedon and encompassed a broad swathe of land extending to both the north and south of Flax Bourton. The nature of the plan in Figure 5 is clearly schematic and was not intended to indicate any level of detail for the strategic transport improvements.

2.6 The November 2016 JSP consultation was supported by two documents that addressed transportation issues, both dated November 2016. These included:

- JSP Emerging Spatial Plan: Transport Topic Paper; and

2.7 Figure 4.3 of the JSP Transport Topic Paper presented the proposed transport mitigation to support the emerging spatial strategy. The plan at Figure 4.3 (below) shows a “New or Improved Road” apparently connecting between a point on the A370 to the west of Flax Bourton, passing south of Nailsea and on to Clevedon, with a link back to the A370 to the west of Backwell. A Metrobus route is also shown connecting Bristol to and around Nailsea.
2.8 Page 6 of the JTS Transport Vision Summary Document shows a similar plan that includes only the North Somerset quadrant of the study area. This plan is clearer than the JSP Figure 4.3 version because it distinguishes in the key between new and improved roads. The Page 6 plan (below) shows a new road, not an improved road because the latter are depicted with a dashed line. The route of the road appears to run from the A370 Long Ashton Bypass, south of Flax Bourton and Nailsea, and terminates at an improved junction at Clevedon, the location of which appears to represent M5 Junction 20. It too shows a new road link to the A370 to the west of Backwell and the plan also shows a Metrobus route from Bristol to and around Nailsea, and continuing on to Clevedon.
2.9 The change of the NCI route in the vicinity of Flax Bourton that is evident between November 2016 and October 2017 implies that at least a basic route study was undertaken during the intervening period.

2.10 FBPC responded to the November 2016 consultations in January 2016. Responding to a consultation question that asked whether the Preferred Spatial Strategy and the locations identified meet the plan’s strategic priorities and vision, FBPC responded:

This is very dependent on addressing the infrastructure needs well in advance of any proposed development – transport, schooling, medical etc.
3. JOINT SPATIAL PLAN PUBLICATION DOCUMENT – NOVEMBER 2017

3.1 The JSP PD proposes strategic locations for housing developments at Backwell and Nailsea.

**Policy 7.4 - Strategic Development at Backwell**

3.2 Policy 7.4 proposes land to the west of Backwell as the broad location for an extension to the village to accommodate around 700 dwellings. The full text of Policy 7.4 is reproduced at Appendix A.

3.3 Of significance to FBPC, the development is to be mitigated with the delivery of transport mitigation measures that include:

1. new multi-modal link from A370 Long Ashton Bypass to station interchange (including rail crossing), Nailsea SDL and Nailsea town centre, with connection to A370 west of Backwell (including rail crossing) and a new or improved connection to M5;

2. new MetroBus route linking Bristol to Nailsea from Long Ashton Bypass to the station interchange (including rail crossing), Nailsea SDL and Nailsea town centre, and potential onward link to Clevedon;

3. opportunities to phase delivery of the highway improvements in step with parts of the development may be explored.

The term “station interchange” is not defined in JSP PD but is assumed to refer to an item within Policy 7.4, which comprises: “improvements to the rail station to create a multimodal interchange including enhanced parking, facilitating increased frequency and capacity, accessibility and accommodating a MetroBus interchange.” The term “Nailsea SDL” is not explained within JSP PD.

**Policy 7.7 - Strategic Development at Nailsea**

3.4 Policy 7.7 proposes land to the south-west of Nailsea as the indicative location for an extension to the town to accommodate around 2575 dwellings, with a further 725 dwellings estimated beyond 2036. The full text of Policy 7.7 is reproduced at Appendix B.

3.5 Of significance to FBPC, the development is to be mitigated with the delivery of transport mitigation measures that include:
(i) new multi-modal link from A370 Long Ashton Bypass to station interchange (including rail crossing), new development area and Nailsea town centre, with connection to A370 west of Backwell (including rail crossing) and a new or improved connection to the M5;

(ii) new MetroBus route linking Bristol to Nailsea from Long Ashton Bypass to the station interchange (including rail crossing), new development area and Nailsea town centre, and onward link to Clevedon via M5 J20 link; and

(iii) opportunities to phase delivery of the highway improvements in step with parts of the development may be explored.

These mitigation measures are almost exactly the same as those proposed for the development at Backwell, the only difference being the more specific reference in the second item to an onward link to Clevedon “via M5 J20 link”.

Other Useful Information

3.6 The Technical Documents and Evidence Base papers that inform the JSP PD are listed on page 49 and include the JTS Final Report October 2017, which is reviewed in the next section.

3.7 Appendix A on pages 50 and 51 of JSP PD presents the JSP Key Diagram and this is reproduced at Appendix C. The Key Diagram shows the broad location of the strategic development sites at Nailsea and Backwell, and the new road and Metrobus proposals in the vicinity. The key makes clear that the routes of new roads are to be determined and a separate note reinforces this point. It reads: “Transport alignments in this plan are shown for illustrative purposes and are indicative only.” It is clear from these annotations that the precise routes of the transport corridors have yet to be decided.
4. REVIEW OF SUPPORTING EVIDENCE

4.1 At page 49, the JSP PD lists “…various technical documents and evidence base papers that inform the Joint Spatial Plan Publication Document.”. With regard to the NCI the most important of these is the Joint Transport Study Final Report October 2017 (JTS FR).

Joint Transport Strategy Final Report

4.2 The JTS FR sets out a Transport Vision, which identifies a range of transport schemes across the WoE for delivery within the JSP period to 2036. Section 5 of the report is titled South West: Weston-super-Mare to Bristol and indicates that the priorities in this area are to:

- Improve connectivity to Weston-super-Mare and key settlements in North Somerset.
- Improve strategic connectivity to Bristol Port and Bristol Airport.
- Improve regional connectivity to London, the Midlands and the South West.

Figure 5.1 of the JTS FR shows the transport vision in the South West part of the WoE and is reproduced below.

Figure 5.1 South West Area

4.3 Section 5.4 of the JTS FR addresses Nailsea and the A370, Cleevedon and Portishead. For ease of reference, the full text of this section is reproduced at Appendix D. The NCI is one of the transport vision schemes identified within the south-west area. It is described as:

Alignments in this plan are shown for illustrative purposes only and are not intended to indicate specific alignments.
Multi-modal corridor improvement (highway, MetroBus, strategic cycling route) between Bristol / A370, Nailsea and connecting to Clevedon / M5. Focus to the east of Nailsea, joining the A370 west of Long Ashton, with a new crossing of the railway line west of Backwell to join the A370. This will help to unlock growth at Nailsea and improve connectivity and travel choices between Nailsea and Bristol.

A new road link fitting this description can be seen on Figure 5.1 of the JTS FR, although it is not specifically annotated as the NCI. However, Figure 5.1 is clearly annotated: “Alignments in this plan are shown for illustrative purposes only and are not intended to indicate specific alignments.”.

Nailsea Corridor Improvement

General Comment

4.4 The NCI is described in the JTS FR as a:

Multi-modal corridor improvement (highway, MetroBus, strategic cycling route) between Bristol / A370, Nailsea and connecting to Clevedon / M5. Focus to the east of Nailsea, joining the A370 west of Long Ashton, with a new crossing of the railway line west of Backwell to join the A370. This will help to unlock growth at Nailsea and improve connectivity and travel choices between Nailsea and Bristol.

4.5 The reference in the text of JTS FR to joining the A370 west of Long Ashton implies that the NCI is expected to comprise a new road connecting to the western end of the A370 Long Ashton Bypass. As in the November 2016 consultation, the route on Figure 5-1 (see paragraph 4.2) is shown passing south of Nailsea and linking back to the A370 to the west of Backwell. No further details of the proposed route are provided in JTS FR but the text explains that NCI is expected to:

- draw traffic off the A370 through Flax Bourton and Backwell;
- provide a Metrobus route between Bristol, Nailsea and Clevedon; and
- improve access between South Bristol and the M5.

4.6 The solid light blue line in Figure 5.1 also indicates that a new road is envisaged for the NCI in the vicinity of Flax Bourton.
4.7 The JTS FR is not clear whether NCI would include a new eastern arm off M5 Junction 20 at Clevedon. The final point itemised above recognises that the NCI would serve to improve access between South Bristol and the M5. However, confusingly, the line on Figure 5.1 to the west of Nailsea is shown dashed, denoting an improved road, rather than a new road. Clearly, as there is no eastern arm at the existing Junction 20 facing towards Nailsea, a new road would be needed to provide a direct eastward connection to the motorway junction but the reason for showing a dashed line to the west of Nailsea, representing an improved road, is not clear. This may be of significance for Flax Bourton, as the provision of a direct connection from the NCI on the east side of M5 Junction 20 could influence the volume of traffic using the new road and, consequently, the number of traffic lanes required.

**Supporting Traffic Modelling**

4.8 Figure 3-5 of JTS FR October 17 is reproduced below. It presents information on existing congestion in the WoE and the associated text explains that the information is sourced from transport model data and observed conditions on the road network. A Congestion Hotspot is identified on the A370 at Backwell. The precise location is not discernible from the plan due to its small scale but, based upon the authors’ experiences, it is assumed to be at the traffic signals in the centre of Backwell. (Somewhat surprisingly, congestion is also shown on the B3130 through Barrow Gurney, even though the South Bristol Link can be seen on the plan and has largely resolved congestion problems in Barrow Gurney.)

![Figure 3-5: Congestion in the West of England](image-url)
4.9 No further details of the traffic modelling work that underpins the final Transport Vision have been found in the documents supporting the JSP PD.

Review of Joint Transport Study Final Report: Appendix A Scheme Assessment

4.10 The NCI is included as Road 7 within the Appendix A Scheme Assessments of the JTS FR. The full assessment for Road 7 is reproduced at Appendix E to this report. The Scheme Assessment explains that three options were considered: Two described as “New corridors from the A370 Long Ashton Bypass to the south of Nailsea, with connection to A370 west of Backwell, and improved transport connecting to Clevedon/J20” are referenced schemes A and B. A third, comprising “A370 corridor highway improvements (package of junction improvements)” is referenced scheme C.

4.11 In the section titled Options Selected:

- Option C is: discounted because there is insufficient space to improve congested junctions on the A370 corridor (e.g. Backwell signals);
- Option B is: discounted because it would not serve the JSP locations at Nailsea and Backwell, which would otherwise impact on Backwell signals; however,
- Option A is said to: provide the most appropriate means of improving local connectivity in the Nailsea corridor and mitigating the impacts of additional traffic generated by growth in the area. Further consideration of options to connect to Clevedon will be needed, including potential peak hour access controls for connecting to J20.

The assessment makes clear that the outcome of the JTS was a recommendation to select a new corridor between the A370 Long Ashton Bypass and Clevedon, passing south of Nailsea, rather than to improve the existing A370 corridor. However, the assessment provides insufficient information to provide a better understanding of the assessed routes.

4.12 Somewhat surprisingly, given the disposition of buildings close to the route shown to the north and east of Flax Bourton on Figure 5-1 of the JTS FR, the impact on the Built Environment is described as: no impact - scheme is located outside of the urban environment.

4.13 The assessment of the Natural Environment is described as follows:
based on preliminary screening of environmental designations: Scheme falls within: Greenbelt, SSSI, Ancient Woodland, Priority Habitats, SAM and Flood Zone 3. Scheme is also adjacent to (within 500m) of Listed Buildings and Registered Park and Garden. Due to the environmental constraints identified it will have an overall significant negative impact, which will be difficult to mitigate, but will be taken into account in the scheme design process.

4.14 The Estimated Capital Cost at 2016 prices is based upon 13km of new carriageway and is in the range £189 to 265 million.

4.15 In summary, the review of the JTS FR Scheme Assessment for NCI reveals that the study authors, consultant Atkins, considered that sufficient improvements to the A370 would not be practicable, so a new road would be needed. The new road was assessed to have a significant negative impact on the natural environment but no impact upon the built environment. The information in the scheme assessment provides no further information on the proposed route of the NCI but the scheme was assessed on the basis of 13km of new road with a cost at 2016 prices in the range £189 to 265 million.

**NCI Route**

4.16 Understandably for a high-level strategic study such as JTS, Figure 5-1 of JTS October 2017 is schematic and small scale, so it is not easy to determine the envisaged location of the NSI. Furthermore, Figure 5.1 is annotated to make clear that: *Alignments in this plan are shown for illustrative purposes only and are not intended to indicate specific alignments.* Consequently, caution should be exercised when interpolating Figure 5.1, as it is clear that it is not intended to show a specific line for the NCI. That said, comparison with previous iterations of the equivalent plan (see section two of this report), reveal certain changes from the proposal that was consulted upon in November 2016 and imply some development of thinking in the intervening period.

4.17 In common with the November 2016 proposal, a new road corridor is shown in the JTS FR between the western end of the A370 Long Ashton Bypass and Nailsea but, in contrast to the November 2016 route, the route passes to the north and east of the main part of Flax Bourton. The scale of Figure 5.1 is too small to allow interpretation of where the road line is shown in relation to the Farleigh Green part of Flax Bourton that is reached from Old Weston Road in the vicinity of the Avon Coroner’s Court and Flax Bourton Village Hall. In common with the previous proposal, the NCI route to the west of Flax Bourton is shown as a new road passing south of Nailsea and linking back to the A370 to the west of Backwell. Also consistent with the previous version, a Metrobus route is shown linking Bristol to Nailsea via the NCI road.
4.18 A second change from November 2016 to October 2017 is evident to the west of Nailsea, where Figure 5.1 shows dashed light and dark blue lines. At the Clevedon end, these lines no longer terminate at an improved junction. The dashed light blue line is indicated in the key to represent an Improved Road but there is no equivalent dashed dark blue line. A solid dark blue line is shown to represent a Metrobus route, so the change to a dashed dark blue line may infer that the Metrobus route could follow an existing road that is to be improved. The deletion of the junction improvement at Clevedon may infer that the NCI may not necessarily terminate at M5 Junction 20.
5. **FURTHER ENQUIRIES**

5.1 In view of the uncertainties identified in the previous sections regarding the NCI, KTC contacted officers at the WoE Combined Authority (WECA), Atkins – the authors of the JTS - and NSC to seek further clarification.

5.2 At the time of writing, no response had been received from Atkins. This is understandable, given that their work on the JTS FR is complete and, as a consultant, they have no mandate to speak for the LAs.

**West of England Combined Authority**

5.3 The response from WECA confirmed that the scheme illustrations in the JTS were conceptual but directed KTC to the Scheme Assessment pro formas set out in Appendix A to the JTS FR and suggested that the JSP PD Key Diagram may provide more clarity.

5.4 The details at JTS Appendix A were considered at paragraph 4.10 to 4.15 above and reveal that the JTS FR study authors recommended that NCI should be a new road. However, the Scheme Assessment did not provide any further information on the proposed alignment of the NCI.

5.5 Although barely discernible from the small reproduced image of the JSP Key Diagram at Appendix C, scrutiny of the original diagram reveals that to the east of Nailsea, the eastern end of the NCI in the JSP PD swings to the north-east. On reaching the existing B3130 Bristol Road at a point broadly due south of Tyntesfield House, the NCI route then continues in a south-easterly direction towards the western end of the A370 Long Ashton Bypass. The envisaged location of the NCI in the vicinity of Flax Bourton is not clear from this plan but it does appear to pass to the north of the Farleigh Green part of the settlement.

5.6 At its western end the NCI swings northward to the west of Nailsea to rejoin the B3130 Tickenham Road immediately east of the M5 overbridge and west of Tickenham. In contrast, page 6 of the JTS Transport Vision Summary Document from November 2016 (see paragraph 2.8 above) shows a new road terminating at an improved junction at Clevedon, the location of which appears to represent M5 Junction 20. The inference of this change may be that current thinking within NSC at the time of publication of the JSP PD did not favour a direct eastern connection of the NCI to M5 Junction 20.

5.7 WECA’s confirmation that the scheme illustrations in the JTS were conceptual must be stressed. Nonetheless, scrutiny of the JSP Key Diagram may suggest that a route north of the village of Flax Bourton was envisaged by NSC at the time of its publication.
North Somerset Council

5.8 For more information on issues such as specific scheme alignments and transport modelling, WECA’s response referred KTC to NSC, who helpfully responded to KTC’s enquiries about NCI as set out below.

5.9 Regarding information on transport schemes in the public domain, NSC confirmed that the JTS FR, including the Appendix A Scheme Assessments, is all that is in the public domain at this time.

5.10 On transport modelling, NSC explained that the work undertaken to date used a strategic WoE wide model known as GBATS4, which uses industry standard software named SATURN. Whilst the modelling identified the need for transport and capacity improvements to resolve existing network deficiencies and to accommodate the developments proposed in the JSP, it did not define the specific infrastructure required to meet these needs. NSC started with a hierarchy of promoting self-containment and use of public transport first, and only then considered additional highway capacity. This work identified the rationale presented in JTS Figure 5-1 of rail improvements, MetroBus and then, the new road.

5.11 NSC stressed that JTS Figure 5-1 is intended to convey the need for MetroBus and new highway between Nailsea and Bristol but it is not intended to offer any indication as to alignment, or even if new highway and MetroBus are on the same alignment. Indeed, they may not.

5.12 NSC advised that work on the assessment of route options for the NCI, including further transport modelling, is currently underway and will inform Option Assessment Reports that are due to be published in March, and will be consulted upon in the spring of 2018. These reports will offer further clarity on options for providing the infrastructure indicated in Fig 5-1. They will not seek to identify preferred options that might be taken forward. Rather, assessed options will be used to inform the consultation.

5.13 NSC confirmed that the option assessment work is considering all options including online improvements. So, although a new road is shown by the study authors on JTS Figure 5-1 between Nailsea and Bristol, it is not possible at present to say that NSC has decided that a new road will be necessary. In short, all options are currently being considered.
5.14 Referring to the Clevedon to Nailsea section of NCI and the change in the line styles between the November 2016 and October 2017 JTS documents, NSC advised that the plans in the JTS Consultation document (Nov 2016) included solid lines, which, wrongly, gave the impression that the assessments in November 2016 had concluded that a new road and MetroBus were required. However, this was not the case and current assessments are also considering other options. NSC wished to convey the lower level of certainty within the JTS FR: October 2017 and did so by introducing the dashed lines to the west of Nailsea.

5.15 Finally, when questioned on whether the NCI would provide a direct highway link between the M5 motorway and south-west Bristol, NSC acknowledged that a route with a direct motorway connection would represent a different proposition in terms of driver attractiveness from other potential options and confirmed that the issue of connectivity to the M5 is being examined within the existing option testing work.
6. **COMMENT ON PROPOSALS FOR THE NAILSEA CORRIDOR IMPROVEMENT**

**Summary of Published Information**

6.1 Section two of this report reviewed the information presented in two previous rounds of consultation on the emerging JSP. Section three set out the information on the NCI proposal within the current JSP PD and made clear that the precise routes of all transport corridors in the JSP have yet to be decided. Section four sets out the proposals for the NCI included in the JTS FR dated October 2017, prepared by Atkins.

6.2 The review of the scheme evolution revealed that the route of the NCI has changed at each stage of consultation. Both the JSP PD and the JTS FR include plans that show a new road passing south of Nailsea and north of Flax Bourton. However, both documents carry caveats to make clear that the alignments are not intended to offer an indication of specific alignments.

**Further Enquiries**

*West of England Combined Authority*

6.3 In light of the uncertainty surrounding the available published information, further enquiries were made. The response from the West of England Combined Authority confirmed that the scheme illustrations in the JTS were conceptual but suggested that the JSP PD Key Diagram may provide more clarity. WECA’s confirmation that the scheme illustrations in the JTS were conceptual must be stressed. Nonetheless, scrutiny of the JSP Key Diagram may suggest that a route north of the village of Flax Bourton was envisaged as the most likely option at the time of its publication.

*North Somerset Council*

6.4 For more information on issues such as specific scheme alignments and modelling WECA referred KTC to NSC, who helpfully responded with further clarification, as follows:

(i) The JTS FR provides the most detailed information that is currently in the public domain.

(ii) Whilst transport modelling to date identified the need for transport and capacity improvements to resolve existing network deficiencies and to accommodate the developments proposed in the JSP PD, it did not define the specific infrastructure required to meet these needs. NSC’s work identified the rationale presented in JTS Figure 5-1 of rail improvements, MetroBus and the NCI.
(iii) JTS Figure 5-1 is intended to convey the need for MetroBus and new highway between Nailsea and Bristol but it is not intended to offer any indication as to alignment, or even if new highway and MetroBus are on the same alignment. Indeed, they may not.

(iv) Work on the assessment of route options for the NCI, is currently underway and will inform Option Assessment Reports that will be consulted upon in the spring of 2018. These reports will offer clarity on options for providing the infrastructure indicated in Fig 5-1 but will not seek to identify preferred options.

(v) The option assessment work is considering all options including online improvements. Although a new road is shown on JTS Figure 5-1 between Nailsea and Bristol, it is not possible to say that a new road will be necessary. In short, all options are currently being considered.

(vi) NSC confirmed that the issue of connectivity to the M5 is being examined within the existing option testing work.

Comment

6.5 It is clear from changes to the lines shown to represent the Nailsea Corridor Improvement in the three rounds of consultation on the emerging JSP that there has been some evolution of thinking on its form and alignment. However, JSP PD makes it very clear that the precise routes of all transport corridors have yet to be decided.

6.6 KTC’s interpretation of the current plans shown in JSP PD Key Diagram (Appendix C) and JTS Figure 5-1 (paragraph 4.2) is that, at the time of publication, a new road serving both general traffic and Metrobus, on a route passing to the north of both parts of Flax Bourton village, was considered to be the best option to illustrate the proposal.

6.7 Enquiries with NSC made clear that no decisions have yet been taken on NCI, either on the nature of the route as an improvement or a new road, or on its alignment. Work is currently progressing to examine route options for the NCI and a report on the work is due to be completed in March 2018. This will provide the base for a public consultation on the proposal.
6.8 If a new road is eventually proposed for NCI, there is no information on the standard of road envisaged. For the purposes of visualising what might be contemplated, KTC suggests that, as a minimum, it would be similar to the section of the new South Bristol Link to the west of the A38. This includes two all traffic lanes, two bus lanes, a footway/cycleway on one side, with associated verges, earth slopes and drainage infrastructure, as indicated on the plan attached at Appendix F. Given the possibility of the new link providing a route from South Bristol to M5 Junction 20, it may alternatively be a dual carriageway. The scale and form of the junctions with intersecting roads (e.g. roundabouts or traffic signal controlled tee or crossroads) will be influenced by the predicted volume and pattern of traffic movements.

6.9 The Scheme Assessments described at Appendix A of the JTS FR identified that a new NCI would have significant negative environmental impacts but no impact on the built environment, on the basis that the scheme is located outside the urban environment. While the basis of the assessment is not clear, these assessments give grounds for concern for FBPC, whose response to the current consultation on the JSP PD should seek to ensure that the sensitive issues affecting the village and its environs are properly considered within the route option studies for the NCI.
7. **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

**Summary**

7.1 The Joint Spatial Plan Publication Document dated November 2017 (JSP PD) is a strategic planning document that will, when formally adopted, provide a context for town planning across all four West of England Local Authorities looking ahead to 2036. JSP PD was released for public consultation in November 2017 and responses are to be returned by Wednesday 10\textsuperscript{th} January 2018.

7.2 A road named the Nailsea Corridor Improvement (NCI) is proposed within the JSP PD to connect the western end of the A370 Long Ashton Bypass to Nailsea and Clevedon. The road is intended to serve general road traffic, as a strategic cycle corridor and Metrobus.

7.3 This report has investigated the proposals within JSP PD and a range of supporting documents in order to understand the proposals for the NCI. The review included consideration of the information presented in two previous rounds of consultation, to establish the evolution of the NCI scheme. In particular, it has considered a key supporting document to the JSP PD, the Joint Transport Study Final Report published in October 2017 (JTS FR). The review also included enquiries submitted to the West of England Combined Authority and to North Somerset Council.

7.4 The conclusions reached from this review are set out below, together with recommendations to Flax Bourton Parish Council on its response to the JSP PD.

**Conclusions**

7.5 The JSP PD includes a Key Diagram (see **Appendix C**) that shows a new road passing south of Nailsea and north of Flax Bourton. The key to the plan makes clear that the routes of new roads are to be determined and a separate note reinforces this point. It reads: “Transport alignments in this plan are shown for illustrative purposes and are indicative only.” It is clear from these annotations that the precise routes of all transport corridors have yet to be decided.

7.6 The equivalent plan in JTS FR, Figure 5-1, is reproduced below and shows a similar new road and is subject to a similar caveat that: “Alignments in this plan are shown for illustrative purposes only and are not intended to indicate specific alignments.”.
Although both plans clearly show a new road in the vicinity of Flax Bourton, further enquiries to North Somerset Council established the following points.

(i) The JTS FR provides the most detailed information on NCI that is currently in the public domain.

(ii) Transport modelling to date identified the need for transport and capacity improvements to resolve existing network deficiencies and to accommodate the developments proposed in the JSP PD but it did not define the specific infrastructure required to meet these needs. NSC’s work identified the rationale presented in JTS Figure 5-1 of rail improvements, MetroBus and the NCI.

(iii) JTS Figure 5-1 is intended to convey the need for MetroBus and new highway between Nailsea and Bristol but it is not intended to offer any indication as to alignment, or even if new highway and MetroBus are on the same alignment.

(iv) Work on the assessment of route options for the NCI, is currently underway and will inform Option Assessment Reports that will be consulted upon in the spring of 2018. These reports will offer clarity on options for providing the infrastructure indicated in Fig 5-1 but will not seek to identify preferred options.

From all the above, it is clear that the scale and alignment of the NCI has yet to be decided, including the alignment and location of its connection to the A370 near to Flax Bourton.
Recommendations

7.9 There has been a legacy of under-investment in the transport network within the WoE sub-region including within NSC. Local to Flax Bourton, this is evident in the congestion that occurs on the A370 during normal weekday commuter peaks, in summer peak periods and when the M5 motorway is closed. If additional strategic development is allocated at both Nailsea and Backwell, this congestion will increase, if improvements to transport infrastructure are not included in the JSP.

The Principle of the Nailsea Corridor Improvement

7.10 FBPC has a range of options to consider on its response to the principle of the proposed NCI.

7.11 If FBPC considers that existing conditions on the A370 through the village warrant intervention in the form of a new road, then it is recommended to express support in principle for the inclusion of the NCI within JSP PD. It would then be consistent to register a similar expression of support for the NCI, if the proposed strategic developments at Backwell and Nailsea are adopted in the JSP PD because, without mitigation, these will exacerbate conditions on the A370.

7.12 Alternatively, if FBPC is not concerned about conditions on the A370 and also wishes to object to the strategic developments proposed at Backwell and Nailsea, it may also choose to object to the NCI.

7.13 In KTC’s view, the inclusion of the strategic development allocations within the JSP PD indicates that they enjoy in principle support from NSC, in its role as the key promoting Local Authority with respect to those allocations. That being the case, it appears likely that the developments will proceed during the plan period and the movements of their residents will impact upon the local transport network, including the A370 through Flax Bourton. For this reason, KTC’s recommendation to FBPC is to express support in principle for the NCI.

7.14 FBPC is also recommended to express support for the Metrobus route linking Bristol, Nailsea and Clevedon, as this would improve access by public transport from the village to Bristol, Nailsea and Clevedon, regardless of whether the NCI is built.

7.15 Despite the above, the absence of any detail of what is proposed for the NCI, including its alignment and standard of construction, mean it is not possible for FBPC to assess the impact of the proposal on the settlement and its environs. For this reason, FBPC is recommended to register a “holding” objection to the NCI within the JSP and to request an opportunity to make representations on NCI when it is discussed at the JSP Public Examination.
7.16 When making its representations, FBPC may wish to highlight the range of issues that will need to be taken into account within the Parish when decisions on the NCI are made. These should include:

(i) severance - this could be caused by an increase in traffic through the village, if an online improvement is chosen, or alternatively if a new road was introduced between the two parts of the settlement.

(ii) environmental impacts, including noise and ecology;

(iii) landscape and visual impacts;

(iv) impacts on the built environment including heritage assets (eg. listed buildings) and sensitive receptors such as the school.

7.17 Alongside its response to the JSP consultation, FBPC is recommended: to contact NSC to seek formal confirmation of the work being undertaken on route option assessments for the NCI; to seek confirmation of the plans for consultation on the outcome of the studies; and to confirm that it wishes to be consulted on the proposals.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B&amp;NES</td>
<td>Bath and North East Somerset Council</td>
</tr>
<tr>
<td>BCC</td>
<td>Bristol City Council</td>
</tr>
<tr>
<td>FBPC</td>
<td>Flax Bourton Parish Council</td>
</tr>
<tr>
<td>GBATS4</td>
<td>Strategic traffic simulation model covering the WoE</td>
</tr>
<tr>
<td>JLTP4</td>
<td>A fourth version of the Joint Local Transport Plan which will provide a 15 year vision for future transport investment to 2036</td>
</tr>
<tr>
<td>JSP Issues and Options Report</td>
<td>The first JSP consultation document published in November 2015</td>
</tr>
<tr>
<td>JSP PD</td>
<td>Joint Spatial Plan Publication Document - the final publication of the JSP dated November 2017 which is currently under consultation</td>
</tr>
</tbody>
</table>
| JSP    | Joint Spatial Plan: “The JSP is a statutory Development Plan Document that will provide the strategic overarching development framework for the West of England to 2036. The scope of the JSP, with its supporting evidence base, is focused on addressing the following critical issues:  
  • Identifying the number of new market and affordable homes and amount of employment land that is needed across the West of England 2016–2036.  
  • Identifying the most appropriate spatial strategy and strategic locations for this growth.  
  • Outlining the strategic transport and other infrastructure that needs to be provided in the right place and at the right time to support sustainable growth and to provide certainty for our communities and those that want to invest in our area.” |
<p>| JTS Key Principles Report | The first JTS consultation document published in November 2015 |
| JTS    | Joint Transport Strategy - a study by consultant Atkins conducted between 2015 and 2017, which provides a clear direction for the long-term development of the transport system in the West of England to 2036 and beyond. The study addressed the combined impact of current challenges on the network as well as growth from committed development in Local Plans and longer term growth in the JSP to 2036. |
| JTS FR  | The Final Report of the Joint Transport Study published in October 2017 |
| KTC    | Key Transport Consultants, the authors of this report |
| LAs    | Local Authorities |</p>
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCI</td>
<td>Nailsea Corridor Improvement – the name given to a transport scheme to improve the corridor from the west end of the A370 Long Ashton Bypass to Clevedon</td>
</tr>
<tr>
<td>NSC</td>
<td>North Somerset Council</td>
</tr>
<tr>
<td>SATURN</td>
<td>Software Package used to create the GBATS4 strategic traffic model (stands for Simulation and Assignment of Traffic to Urban Road Network)</td>
</tr>
<tr>
<td>SGC</td>
<td>South Gloucestershire Council</td>
</tr>
<tr>
<td>WECA</td>
<td>West of England Combined Authority, which includes B&amp;NES, SGC &amp; BCC</td>
</tr>
<tr>
<td>WoE</td>
<td>The West of England region</td>
</tr>
</tbody>
</table>
FIGURES
APPENDIX A

Extract from the Joint Spatial Plan Publication Document - November 2017

Policy 7.4 Backwell
Policy 7.4 – Backwell

Backwell, North Somerset

Land to the west of Backwell is shown indicatively on the Key Diagram as the broad location to accommodate an extension to the village. The key strategic principles and infrastructure requirements are as follows:

- Delivery of an extension to Backwell village to create a sympathetic and well-designed development appropriate to its rural setting of around 700 dwellings including affordable housing.
- Lower densities will be expected on more sensitive parts of the site, including to safeguard heritage and ecological assets.
- Creation of new footpath and cycleways linking the site to the rail station, proposed MetroBus connections and local services and facilities.
- Improvements to the rail station to create a multimodal interchange including enhanced parking, facilitating increased frequency and capacity, accessibility and accommodating a MetroBus interchange.
- Local junction improvements will be required including at Station Road, and the A370 Backwell signalised junction.
- Provision of a primary school of at least 2.4ha to be located to maximise safe access from surrounding communities by walking and cycling.
- Protection of the settings of historic Cheley and West Town Conservation Area and the need for sensitive treatment in respect of the setting of Grove Farm.
- Strategic approach to the assessment, safeguarding and enhancement of greater and lesser horseshoe bat habitat (particularly the Juvenile Sustenance Zone between the A370 and Cheley Road), and Tickenham Nailsea and Kenn Moor SSSI interests.
- Development should avoid the floodplain and demonstrate reduced run-off rates including through the use of attenuation ponds and other features as appropriate. Additional land may be required off-site to facilitate long term water storage as part of the sustainable drainage strategy.
- Development to be mitigated with the delivery of:
  - new multi-modal link from A370 Long Ashton Bypass to station interchange (including rail crossing), Nailsea SDL and Nailsea town centre, with connection to A370 west of Backwell (including rail crossing) and a new or improved connection to M5;
  - new MetroBus route linking Bristol to Nailsea from Long Ashton Bypass to the station interchange (including rail crossing), Nailsea SDL and Nailsea town centre, and potential onward link to Clevedon;
  - opportunities to phase delivery of the highway improvements in step with parts of the development may be explored.
APPENDIX B

Extract from the Joint Spatial Plan Publication Document - November 2017

Policy 7.7 Nailsea
Policy 7.7 – Nailsea

SW Nailsea, North Somerset

Land to the south west of Nailsea is shown indicatively on the Key Diagram as the broad location to accommodate a new extension to the town. The key strategic principles and infrastructure requirements are as follows:

- Delivery of an extension to the south west of Nailsea with its own character and sense of identity for around 7575 dwellings including affordable housing. An additional 725 dwellings are estimated beyond 2036.
- Creation of a new local centre to form the heart of the new community with a range of retail, employment, services and facilities, but of a scale and type which is complementary to Nailsea town centre which will remain the main centre.
- Higher densities at the local centre and at accessible locations, particularly along the proposed MetroBus route and lower densities towards the western edge of the development.
- Creation of new footpath and cycleways linking the new local centre with residential areas, locations within Nailsea and the rail station and public transport services.
- Development to be mitigated with the delivery of:
  1. new multi-modal link from A370 Long Ashton bypass to station interchange (including rail crossing), new development area and Nailsea town centre, with connection to A370 west of Backwell (including rail crossing) and a new or improved connection to the M5.
  2. new MetroBus route linking Bristol to Nailsea from Long Ashton bypass to the station interchange (including rail crossing), new development area and Nailsea town centre, and onward link to Clevedon via M5 J20 link; and
  3. opportunities to phase delivery of the highway improvements in step with parts of the development may be explored.
- Local junction improvements including Station Road, and A370 Backwell signalised junction.
- Provision of a secondary school of 8 ha and four primary schools of at least 2.4 ha each, located to maximise safe access by walking and cycling.
- Strategic approach to the assessment, safeguarding and enhancement of greater and lesser horseshoe bat habitat, and Tickenham, Nailsea and Kenn Moor SSSI interests. This includes investigating the potential for a dark corridor through the new development linking habitats at Backwell through to open countryside to the north and at Batch Farm Meadow wildlife site.
- Protection of heritage assets and their settings particularly listed farm buildings in the area whose settings should be addressed through a sensitive green infrastructure strategy.
- Long-term water storage and other measures are likely to be required as part of a sustainable drainage strategy, as well as reduced run-off rates to surrounding area. Measures to ensure water quality and levels are not adversely impacted on the nearby Tickenham Moors SSSI must be in place.
- The separate identity and character of Nailsea and Backwell will be retained through the provision of an appropriate Strategic Gap.
- Improvements to the rail station to create a multimodal interchange including enhanced parking, facilitating increased frequency and capacity, accessibility and accommodating a MetroBus interchange.

- Consideration of relocation/undergrounding of existing pylons.
- Identification of around 10.5 ha of employment land well connected to the railway station, local centre and MetroBus route. Investigate the potential for a new office park close to the railway with optimum travel links.
APPENDIX C

Extract from the Joint Spatial Plan Publication Document - November 2017

Appendix A JSP Key Diagram
APPENDIX D

Extract from the Joint Transport Study Final Report - October 2017

Section 5.4: Nailsea and the A370, Clevedon and Portishead
5.4. **Nailsea and the A370, Clevedon and Portishead**

From Clevedon and Nailsea there are relatively long journey times by bus to Bristol and other parts of the West of England. There are also significant problems with traffic delays on key routes, including the A370 at Flax Bourton, Backwell and Congresbury and routes through Tickenham, Wraxall and Long Ashton, which also impact on bus services. The Joint Spatial Plan proposes significant growth at Nailsea and Backwell, which will further increase travel demand in this area.

It will be necessary to substantially improve public transport connections in this area. These will include enhancements to Nailsea and Backwell station to include better integration with the local bus network and creation of a new MetroBus route to serve Clevedon and Nailsea, which will connect onto the A370 Long Ashton Bypass and the existing MetroBus network.

This will require new infrastructure in the Nailsea to Bristol corridor, to significantly improve travel choices and tackle the problems caused by delays in Backwell and other roads from Nailsea joining the A370. This will include a multi-modal transport corridor, incorporating a strategic cycle route, MetroBus and new road link, connecting Nailsea to the Long Ashton bypass, and a connection from Nailsea to the A370 west of Backwell.

It will also be necessary to consider how to address the impacts of travel from Nailsea to the north and west. Traffic currently uses roads through Portbury, Tickenham and other villages, which will increase with new development at Nailsea and Backwell. A package of measures will be developed to address these impacts, with options to address the pinchpoint at Stone-edge Batch (B3128 / B3130 junction), measures to manage impacts in Tickenham and improved connections to Clevedon and M5 Junction 20.

Careful consideration should be given to the potential impacts on the M5 to avoid compromising the role of the motorway in serving strategic traffic. It will be important to ensure that opportunities are maximised for encouraging people to use public transport for journeys from Nailsea, and avoid creating short trips using the motorway. Consideration should be given to innovative techniques such as peak hour access restrictions onto the motorway to encourage use of other modes and to manage congestion.

Options should be developed in further detail, but this package has the potential to help to address problems on the A370 and at M5 Junction 19 by enabling diversion of traffic onto the new multi-modal corridor.

| Nailsea Corridor Improvement | Multi-modal corridor improvement (highway, MetroBus, strategic cycling route) between Bristol / A370, Nailsea and connecting to Clevedon / M5. Focus to the east of Nailsea, joining the A370 west of Long Ashton, with a new crossing of the railway line west of Backwell to join the A370. This will help to unlock growth at Nailsea and improve connectivity and travel choices between Nailsea and Bristol. Detail is provided in scheme Road 7 in Appendix A. |
| MetroBus to Clevedon and Nailsea | Route from Clevedon and Nailsea to Bristol, supporting new growth at Nailsea, using Long Ashton Bypass and new transport link from Long Ashton to Nailsea. This is considered as a specific scheme within the Nailsea corridor improvement described above. Detail is provided in scheme MetroBus 2 in Appendix A. |

**Atkins**  
West of England Joint Transport Study  
Final Report | October 2017

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**West of England Joint Transport Study**  
Final Report

In the case of Portishead, there are high levels of out-commuting to the Bristol area, and access from Portishead is via a single road, with no rail access. MetroWest Phase 1, which is committed and planned to open in 2021, will re-open the Portishead rail line, which will improve travel choices and connectivity from the town.
APPENDIX E

Extract from the Joint Transport Study Final Report - October 2017

Appendix A Scheme Assessments

Road 7: Nailsea Corridor Improvement
### Appendix A: Scheme Assessments

<table>
<thead>
<tr>
<th>Name of Project: Flax Bourton JSP Reps</th>
<th>Nalwass Corridor Improvement Reference:</th>
<th>Road 7:</th>
<th></th>
</tr>
</thead>
</table>

#### Scheme Description
- Multi-modal corridor improvements (roadway, footpath, strategic cycling routes between Keynsham, Nalwass and connecting to Clevedon) will help to support growth at Nalwass and Blackwell and improve connectivity and travel choices between Nalwass and Bristol. The corridor will be developed by the towns of Nalwass, joining the A370 to the west of Long Ashton, with a new crossing of the railway line west of Blackwell to join the A370. This will help to support growth at Nalwass and Blackwell and improve connectivity and travel choices between Nalwass and Bristol. This will include provision of infrastructure to support delivery of MetroBus between Nalwass and Bristol (scheme MetroBus 2).

#### Current and Future Policy Context
- North Somerset Core Strategy Policy C531 includes a minimum of 1,100 dwellings for Nalwass, and 700 for Clevedon. These towns will maintain and enhance their roles of providing services, employment opportunities and services for their populations and local communities. Nalwass in particular has suffered from being planned as a dormitory town in the 1960s, and Nalwass and Clevedon have high levels of out-commuting. The potential for further development has been identified at Nalwass and Blackwell as part of the JSP Emerging Spatial Strategy, although this is not adopted policy.

#### Need for Intervention (specific to the area under consideration)
1. Need for effective connectivity from Nalwass and Blackwell development to all routes. Development at Nalwass and Blackwell will further increase congestion problems along the A370 without major connectivity improvements.
2. Long journey times by public transport from Clevedon and Nalwass to Bristol due to constraints on existing road network.
3. High levels of traffic through villages on A370 (e.g. Flax Bourton, Backwell and Congresbury) and on B3130 through Tickenham.
4. Slow and unreliable journey times on A370 between JET and South Bristol (with significant hotspots at Congresbury and Backwell).
5. Long and unreliable journey times from the M5 to South Bristol, with poor quality connectivity on all routes, including A38, A370 and A361.

#### Objectives (related to the need for intervention)
(a) Provide a more direct and faster route for the proposed Metrobus route from Clevedon to Nalwass to Bristol, and strategic cycle route, encouraging mode shift.
(b) Address congestion pinch points at Congresbury and Backwell traffic lights, and improve access to Nalwass.
(c) Reduce traffic through villages on A370 (Congresbury, Backwell, etc) and B3130 (Tickenham).
(d) Improve access and reduce journey times between the M5 and South Bristol.
(e) Mitigate the traffic impacts of JSP development at Nalwass and Blackwell, on the A370 and the B3130 through Tickenham.

#### Options Considered
- A: New corridor, from A370 Long Ashton Bypass to the south of Nalwass, with connection to A370 west of Blackwell, and improved transport connections to Clevedon (JET).  
- B: New corridor, from A370 Long Ashton Bypass to the north of Nalwass, with connection to A370 west of Blackwell, and improved transport connections to Clevedon (JET).  
- C: A370 corridor improvements (package of junction improvements).

#### Option Selected (and rationale)
Option C: discounted because there is insufficient space to improve congested junctions on the A370 corridor (e.g. Backwell section). Option B: discounted because it would not serve the JSP locations at Nalwass and Blackwell, which would otherwise impact on Blackwell signals. Option A would provide the most appropriate means of improving local connectivity in the Nalwass corridor and mitigating the impacts of additional traffic generated by growth in the area. Further consideration of options to connect to Clevedon will be needed, including potential peak hour access controls for connecting to JET.

#### Dependencies
- The link would support the delivery of the new Metrobus corridor between Clevedon, Nalwass and Bristol.

#### Strategic Case: based on strength of alignment with local policies and strength of support for objectives
- [Support delivery of planned growth in Clevedon and Nalwass.]
- [Support future potential growth in North Somerset.]

#### Performance against Objectives
(a) Provide a more direct and faster route for the proposed Metrobus route from Clevedon to Nalwass to Bristol, and strategic cycle route, encouraging mode shift.
(b) Address congestion pinch points at Congresbury and Blackwell traffic lights, and improve access to Nalwass.
(c) Reduce traffic through villages on A370 (Congresbury, Backwell, etc) and B3130 (Tickenham).
(d) Improve access and reduce journey times between the M5 and South Bristol.
(e) Mitigate the traffic impacts of JSP development at Nalwass and Blackwell, on the A370 and the B3130 through Tickenham.
### Appendix A: Scheme Assessments

#### Economic Case: based on balance of benefits (as expressed through JT9 goals) and costs

<table>
<thead>
<tr>
<th>Support Economic Growth</th>
<th>Transport User Benefits (journey time &amp; vehicle operating costs: qualitative assessment)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Impacts on National Networks: depending on form of link from Nailsea to Clevedon, there could be changes in use of M5 for links to Weston and North Fringe.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Resilience: wider benefit of increased network resilience for the M5 in event of accident between J20 and North Fringe.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Unlock new growth in jobs and housing: unblocks JSP development at Nailsea / Backwell.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Connections to Gateways: slight improvement in connectivity to Bristol Airport from Clevedon/Weetwood, from M5 to A370.</td>
<td>X</td>
</tr>
<tr>
<td>Reduce Carbon Emissions</td>
<td>Resource efficiency: new link will improve efficiency of traffic movements. J20 Link will reduce distance travelled.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Low carbon choices: risk of new road encouraging car based travel. However it would improve the proposed Metrobus from Clevedon and Nailsea to Bristol, by making the Clevedon to Nailsea route more direct, and provision of strategic cycling connections.</td>
<td>X</td>
</tr>
<tr>
<td>Quality of Life and the Natural Environment</td>
<td>Built environment: no impact - scheme is located outside of the urban environment.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Natural environment: based on preliminary screening of environmental designations: Scheme falls within Greenbelt, SSSI, Ancient Woodland, Priority Habitats, SAM and Flood Zone 1. Scheme is also adjacent to (within 500m) of Listed Buildings and Registered Park and Garden. Due to the environmental constraints identified it will have an overall significant negative impact, which will be difficult to mitigate, but will be taken into account in the scheme design process.</td>
<td>X</td>
</tr>
<tr>
<td>Improve Health, Safety and Security</td>
<td>Healthy travel choices: scheme will incorporate a strategic cycling route, opportunity to encourage active travel in Nailsea - Long Ashton corridor.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Air quality: reduced traffic through the A379 and B3150 villages. None sight increase in traffic forecast to the east of Nailsea.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety for transport users: less rat-racing of traffic on rural lanes between Nailsea and Clevedon and through residential areas.</td>
<td></td>
</tr>
<tr>
<td>Promote Accessibility</td>
<td>Access to Jobs &amp; Training: neutral in isolation but will strongly complement the proposed Metrobus from Clevedon and Nailsea to Bristol, providing a more direct route.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Access to local services: neutral in isolation but will strongly complement the proposed Metrobus from Clevedon and Nailsea to Bristol, providing a more direct route.</td>
<td>X</td>
</tr>
</tbody>
</table>

#### Costs to Public Accounts

| Cost to Transport Budget: high-level estimate of construction costs (Present Value of Costs, incl. 44% Optimism Bias) | £285 million |
| Impact of Tax Revenues: small reduction in tax revenues from reduction in tax consumption (small, assume neutral) | - |

#### Value for Money

<table>
<thead>
<tr>
<th>Initial assessment of Value for Money, based on benefits and costs</th>
<th></th>
</tr>
</thead>
</table>

#### Financial, Delivery and Commercial Considerations: considering the deliverability of the project

| Estimated Cost | Estimated capital cost (£ million, 2016 prices), excluding risk allowance, based on 13km of new carriageway | £180 million |
|                | Estimated capital cost (£ million, 2016 prices), including risk allowance (assumed 40%) | £265 million |

#### Potential Funding Sources

| Local Majors Funding, Local Growth Fund, Developers (via S106 Agreements and/or CLT) |  |

#### Affordability

| Scheme represents a step change in investment level compared with the current West of England major scheme programme. Assume development at Nailsea / Backwell could only part fund this based on indicative cost per dwelling |  |

#### Delivery Agencies

| North Somerset Council and Highways England - as a scheme which directly affects the strategic road network (including modifications to M5 Junction 20) it will involve joint working. Lead delivery agency would need to be agreed. |  |

#### Key Project Risks

| 1) Crossing head plant between Clevedon and Nailsea (network of drainage ditches) (2) Mitigation of significant environmental impacts (3) Ability to mitigate increased traffic flows to the east of Nailsea (4) Scheme is not in Highways England's Road Investment Strategy |  |

#### Public Support

| JT9 consultation demonstrated that just over 50% of respondents supported the principle of new roads. However, the consultation identified significant levels of opposition to this specific proposal. Environmental impacts and impacts on local communities will need to be carefully managed and mitigated. |  |

#### Commercial Case

| Project could be delivered through a range of procurement models. NSC has previously worked with Highways England. |  |
APPENDIX F

Drawing of the South Bristol Link
Indicating Possible Scale and
Character of the Nailsea Corridor
Improvement