



## Extraordinary Meeting Scrutiny Committee

Minutes of the Extraordinary Meeting Held on 22 July 2019  
at 2.47pm in the Edwards Room, County Hall, Norwich

### Present:

Cllr Steve Morphew (Chair)  
Cllr Alison Thomas (Vice-Chair)

|                     |                    |
|---------------------|--------------------|
| Cllr Roy Brame      | Cllr Keith Kiddie  |
| Cllr Ed Connolly    | Cllr Ed Maxfield   |
| Cllr Emma Corlett   | Cllr Joe Mooney    |
| Cllr Phillip Duigan | Cllr Richard Price |
| Cllr Ron Hanton     |                    |

### Substitute Members present:

Cllr Terry Jermy for Cllr Chris Jones  
Cllr Brian Watkins for Cllr Dan Roper

### Also present:

|                      |  |
|----------------------|--|
| David Allfrey        | Infrastructure Delivery Manager                            |
| Cllr Martin Wilby    | Cabinet Member for Highways and Transport                  |
| Cllr Andrew Jamieson | Cabinet Member for Finance                                 |
| Tom McCabe           | Executive Director of Community and Environmental Services |
| Simon George         | Executive Director of Finance and Commercial Services      |
| Grahame Bygrave      | Assistant Director Highways & Waste                        |
| Paula Cuthbertson    | Associate, Transport and Development Planning, WSP         |
| Andy Bascombe        | Technical Director, Ecology, WSP                           |
| David Green          | Associate, Town Planning, WSP                              |
| Craig Brennan        | Technical Director, Transport Planning, WSP                |

### 1 Apologies for Absence

1.1 Apologies for absence were received from Chris Jones (Cllr Jermy substituting) and Cllr Roper (Cllr B Watkins substituting)

### 2 Declarations of Interest

2.1 There were no declarations of interest.

### **3 Public Question Time**

- 3.1 Three public questions and 2 supplementary questions had been received; see appendix A. The Chair clarified that Scrutiny Committee did not have the power to overturn decisions made by Cabinet and therefore these questions were for Cabinet to answer; the Chair had asked for the questions to be referred to Cabinet. The points raised would, however, inform discussion of Scrutiny Committee.
- 3.2 The Chair asked members of the public who were present to introduce their questions and the Committee would then formally forward them on to Cabinet for a response; members of the public who had put forward a question to today's meeting would be entitled to ask a supplementary at the Cabinet meeting where their questions were considered. Christopher Keene and Jenn Parkhouse introduced their questions to the Committee; see appendix A

### **4 Local Member Issues/Questions**

- 4.1 One local Member question was received from Cllr Danny Douglas (appendix A).

### **5 Norwich Western Link**

- 5.1.1 The Committee received the report considered by Cabinet on 15 July 2019 bringing together all the work completed by the County Council on the Norwich Western Link to establish the need for a road-based transport solution and to evaluate each of the options developed following completion of an options appraisal process.
- 5.1.2 The Infrastructure Delivery Manager gave a presentation which was previously given to Cabinet when they received the report on the 15 July 2019 (see appendix B)
- Each scheme could be compared on a like-for-like basis
  - The biodiversity matrix showed impact of each option against ecological features shown in order of significance; provision had been included in the project budget to work towards biodiversity net gain
  - Traffic data was used to show how each option would perform; B, C and D generated higher levels of traffic, but routes C and D were better at reducing traffic on nearby routes
  - Option B west, then C were the best performing options according to cost benefit; option A was the cheapest overall but worst according to cost benefit
  - Option D had highest public support according to the consultation followed by option C which was well supported. There was notably less support for options A & B
- 5.2.1 Cabinet Member Cllr Martin Wilby gave background to the project:
- The Norwich Western Link was one of the Major Infrastructure Projects agreed by Council; there had been 2 public consultations, and, on the 15 July 2019, Cabinet agreed to go ahead with Option C, the benefits of which were presented in the report considered by Cabinet
- 5.2.2 The Chair reviewed the recommendations considered by Cabinet; Recommendation 1: *To submit the Strategic Outline Business Case (SOBC) to DfT*

*via Transport East as part of their Regional Evidence Base by the end of July 2019*

- Cllr Wilby clarified that Transport East would submit applications to the Department for Transport (DfT) for Major Road Network funding by the end of July 2019; a meeting was due the following week with Councillors from Essex, Norfolk and Suffolk to agree Transport East priorities to send to the DfT.
- The Western Link project would be agreed through Transport East in alignment with its priorities and submitted by them to the DfT
- Deadline for submission of the strategic business case to DfT was the 31 July 2019. The deadline for submission of the outline business case, which would set out the case in greater detail and seek approval of funding from DfT, was January 2020.

5.2.3 Recommendation 2: *That a road-based transport intervention is the most appropriate solution to address the identified transport issues affecting the area and to select Option C as the preferred route for the Norwich Western Link in order for the Council to make a Preferred Route Announcement (PRA)*

- The Chair queried why other solutions were discarded; the Infrastructure Delivery Manager reported that a report was taken to the Environment Development and Transport Committee in October 2018 setting out the 82 options appraised and explaining how the DfT sifting tool had been used to refine them using project criteria and objectives to arrive at the final 4 options.
- Non-road-based options, including sustainable transport solutions, were considered, however, road-based solutions were shown to be the most effective at meeting the project objectives and deliver the best cost benefit

5.2.4 Recommendation 3: *To bring forward project development spend to FY2019/20 in order to maintain the project delivery programme*

- Approximately £1.5m of capital funding previously outlined as required in future financial years would be brought forward to carry out work on the procurement, effectively completing this work at an earlier stage

5.3 The following points were discussed and noted

- The Vice-Chair asked how assumptions on air quality and noise were calculated; the Infrastructure Delivery Manager reported that assessments for each option were carried out on a like-for-like basis, not including mitigations, so did not include future changes such as to vehicle types. Methodology took the current vehicle fleet into account. If Government policy changed, new methodology and guidance would be followed
- In response to a query, it was confirmed that a Sustainable Transport Strategy would be developed in line with development of the preferred option and work carried out with local communities to improve cycling and walking options and with public transport operators to improve public transport across the network
- The Infrastructure Delivery Manager confirmed that the focus of the strategic business case was on the general case for a scheme, without specific detail on a preferred route; final submission of the strategic business case had been held back to align with the Transport East decision making programme
- In response to a Member query about the route identified through consultation (ie a preference for option D and whether people wouldn't therefore use the other options), Officers noted that data showed options B, C and D had similar anticipated traffic flow and it was therefore likely that people would use the preferred route

- The Technical Director, Transport Planning, WSP, confirmed in response to a query that the DfT Traffic Modelling guidance had been used and the model for the project used 2015 origin and destination data taken from mobile phone data
- If the submission was not made in July 2019 this could risk the scheme not being included in the 2020 to 2025 round of DfT funding
- Officers and the DfT accepted there were risks to delivery of large projects such as this, therefore it was key to keep the DfT informed of changes to delivery timescale; DfT reserved the right to withdraw funding if there was a significant change to the programme
- The Council would be competing with other Transport East priorities and projects developed by other Local Authorities
- The cost of this scheme at a time when sustainable transport options and solutions to reduce carbon were being looked at was questioned; the Associate, Transport and Development Planning, from WSP, reported that a baseline review was undertaken of all issues and viability of options developed to address them calculated, informed by work with local parish liaison groups and the public consultation. This found many of the non-road options were not viable and many journeys, such as HGV journeys, would be better catered for by road-based solutions. Sustainable transport measures would be brought into the scheme to offset some of the carbon emissions
- Disruption of wildlife, particularly in the designated area near the River Wensum, from noise, traffic and construction was queried; the Technical Director, Ecology, WSP reported that environmental and habitat impacts, and mitigations needed, would be considered in detail alongside development of the preferred route; detailed surveys would be carried out of habitats and wildlife crossing points and effects of construction assessed
- Opportunities for habitat creation would be looked at where possible. A standard Defra metric was used to assess habitat lost and gained which included the time taken for habitats to establish taking into account that habitats took different times to become fully established
- There was not a fixed time for the net gain in biodiversity due to the differing timescales for establishing habitats, but the aspiration was to achieve this in line with the Defra guidance
- Officers confirmed that a design for the scheme was needed before mitigations for environmental impacts could be looked at in detail
- An environmental “deal breaker” for the scheme would be a material effect on a special area of conservation, such as the river Wensum
- The proposed route would be developed in more detail to inform the planning process and the mitigation measures would be included in the planning application
- Members queried consideration taken to offset carbon; the Associate, Town Planning, WSP confirmed that mitigations would be identified through the environmental impact assessment and planning process
- Following a query, the Technical Director, Ecology, WSP clarified that data on main bat routes had been used to inform route selection and the decision taken by Cabinet; once the preferred route had been confirmed, further detailed bat surveys would continue to be carried out in the area including radio tracking
- The Infrastructure Delivery Manager clarified for Members the option selection process; following appropriate transport analysis guidance, initial options were

drawn up with appropriate information used to inform decision making, and then, once chosen, the preferred scheme would continue to be worked up in more detail

- The Executive Director of Community and Environmental Services confirmed that Route C was highlighted as being the best route for a range of reasons, all of which would be tested fully as part of the statutory process
- The Chair **PROPOSED** that the meeting was adjourned at 16.30 for discussion to continue at the meeting the following week, on the 30 July 2019
- Cabinet Member Andrew Jamieson gave a brief introduction on finances of the scheme
  - The cost of the project was estimated to be £152.7m; Central Government would fund up to 85% of a road of this type, leaving around 15-20% for local funding, approximately £20-30m for Route C
  - Cllr Jamieson suggested that funding could be sought through an application to the Greater Norwich Growth Board or New Anglia Local Enterprise Partnership, as with the Northern Distributor Road (now called the Broadland Northway)
  - Any contribution by Norfolk County Council would need to be borrowed, at 2% interest on a fixed rate for 50 years; The head of finance indicated this would give an additional cost to the council of around £1m per year for a £30m capital cost
  - The Executive Director of Community and Environmental Services confirmed that confidence regarding budget was linked to type of contract used and we would build on lessons learnt from the recent Great Yarmouth 3<sup>rd</sup> River crossing procurement
- Papers to Cabinet suggested cost would exclude changes at the A47 junction; it was confirmed that this work would be funded by Highways England, and Officers were working with them to monitor proposals for A47 dualling. The cost to the NWL project would be the extra-over costs for the larger junction the NWL would require
- The risks of borrowing were queried given the current political climate; Cllr Jamieson felt that, given that the borrowing would be at a fixed rate for 50 years and the annual cost to the Council would therefore be known, the risk was low, and considered that spending on infrastructure at this time was a prudent and sensible thing to do

#### 5.4 The Scrutiny Committee

- **NOTED** the decision of Cabinet
- **ADJOURNED** the discussion to resume at the meeting of 30 July 2019

The meeting concluded at 16:35

**Chair**

**Scrutiny Committee**  
**22 July 2019**

**Item 5; Public Questions**

**Response from the Chairman:**

*Thank you to those Members of the public and Members that have sent questions through for consideration at the Scrutiny Committee. Your questions will be referred to the Cabinet as I do not consider that they are ones for the Scrutiny Committee to respond to. However, I am happy to accept them, and their contents will assist the Committee in its deliberations*

**Question received from Dr Iain Robinson:**

I am the owner of woodland likely to be destroyed by Route C. A mature oak in my woodland can support over two hundred species of insect, which in turn support bird and mammal life. Veteran trees also provide roosting sites for bats and nesting sites for birds. Can the Councillors explain to me how they will manage to create a net biodiversity gain when habitat that has taken over two hundred years to mature will be destroyed?

**Supplementary Question:**

A woodland is made of more than just trees. The woodland soil ecology and understory (wildflowers, grasses, shrubs etc) might take centuries to mature and develop fungus and species diversity. How do the councillors intend to mitigate for such an irreplaceable loss?

**Question received from Christopher Keene:**

The United Nations' Intergovernmental Panel on Climate Change report of October 2018 states that we need a 45% reduction in carbon emissions by 2030 compared to 2010 to keep warming below 1.5C above pre-industrial levels, which will demand a radical change to our way of life. How can this occur when the Norwich Western link will increase emissions, as research has proven that new roads generate more traffic, with traffic increasing by an average of 47% above the regional equivalent in areas receiving major new roads according to a March 2017 study by Transport for Quality of Life?

**Question from Jenn Parkhouse, Chair Wensum Valley Alliance**

I shall be attending the Scrutiny Committee meeting on Monday and would like to ask the following question on behalf of The Wensum Valley Alliance:

Last October the IPCC reported that carbon emissions would need to be reduced to net zero by 2050 to have a reasonable chance of limiting global warming to 1.5 degrees.

If the NWL goes ahead and opens in 2025 this would increase carbon emissions by 20%+ (ref OSR Table 5.29 specific to Route C. Why is this committee discussing the merits of Route C instead of questioning the very viability of any new road? This would be in keeping with Council's own declared intention when adopting motion in April this year to consider all future key decisions with regard to their environmental impact, and in alignment with IPCC guidance.

**Item 6; Local Member Issues/Questions:**

**Question from Cllr Danny Douglas**

What does the announcement of the government's 2050 net zero target do the business case of the Western Link Road?

**Supplementary:**

Does the increase in the budget for the Major Schemes Department to prepare the Western Link Road in 2019 - 20 threaten the local bus budget which assists with sustainable transport connectivity in Norfolk?

### Norwich Western Link - Preferred Route

--- Highways England route alignment for A47 Tuddenham to Easton  
--- Broadland Northway

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### Why do we need a Norwich Western Link?

- Sustained calls for a Norwich Western Link (NWL) to connect the western end of Broadland Northway (NDR) to the A47 trunk road.
- Concerns from communities about traffic volumes and speed of traffic, severance and loss of local identity and amenity within their communities.
- People also report not feeling safe to walk or cycle within and between their local communities.
- There is a need to improve connectivity between new and emerging housing and employment areas to ensure there is infrastructure in place that facilitates planned growth.
- The business community is clear that good transport infrastructure is key to economic success and growth.
- The new designation of a Major Road Network (MRN) provides a recognition of more significant routes within the local network that connect with the Strategic Road Network (SRN).
- Broadland Northway is part of the MRN but there is currently a gap to the A47 that the Norwich Western Link would resolve.

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### Scheme Objectives

A range of objectives have been developed to align with the current strategic objectives presented in national, regional, and local policy and associated guidance

#### High level objectives

- Support sustainable growth
- Improve the quality of life for local communities
- Support economic growth
- Promote an improved environment
- Improve strategic connectivity with the national road network

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### Specific Objectives

- Reduce congestion and delay, and improve journey time reliability, on routes through the study area
- Improve network resilience and efficiency of the strategic and local transport network
- Reduce the number of Heavy Goods Vehicles using minor roads
- Improve emergency response times
- Make the transport network safer for all users (including Non-Motorised Users)
- Provide traffic relief (and reduce noise & emissions) within residential areas
- Minimise any detrimental impact on valued landscapes, the built environment and heritage assets, including through high quality design
- Not affect the ecological integrity of the Wensum Valley SAC
- Improve access to green space
- Contribute to the improved health and well-being of local residents
- Encourage modal shift to more sustainable modes of transport
- Enable improved accessibility to existing and new housing and employment sites
- Improve connectivity and accessibility to Norwich Airport, Norwich Research Park and Norfolk & Norwich University Hospital

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### Initial consultation

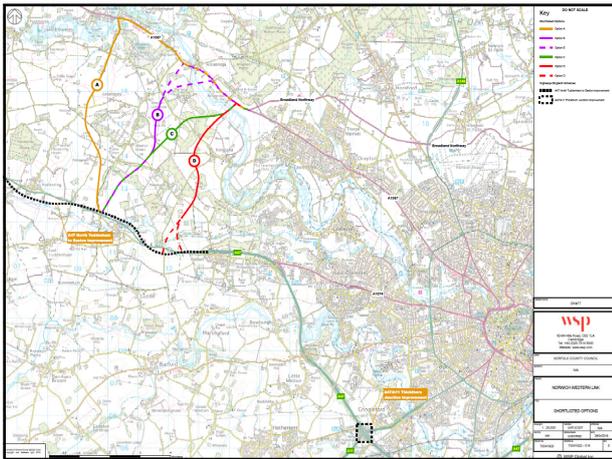
- We carried out a non-statutory public consultation, summer 2018, to understand people's experience of living in, and travelling through, the area to the west of Norwich.
- More than 1,700 consultation responses were received which demonstrated very strong support for creating a link between A1270 Broadland Northway (formerly known as the Northern Distributor Road) and the A47, with the majority of those responding suggesting a new road as their preferred solution
- The results demonstrated that respondents perceive the roads in the area to be unsuitable for the current levels and type of traffic, with rat-running and slow journey time concerns mentioned with a clear preference for developing a new road between the A1270 and A47.

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### Assessment of Options

- From July 2018 to November 2018 an optioneering and appraisal process was carried out to assess options which would potentially address the issues identified.
- Using the DfT's Early Assessment Sifting Tool (EAST), a long list of 82 potential options was reduced to a short list of 3 new highway link options and an existing highway link upgrade option
- As they did not perform as well non-highways options are to be considered as part of potential packages of measures together with the Highways option.

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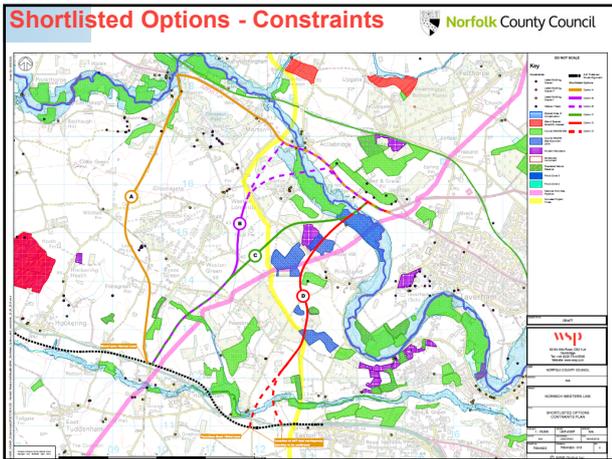


### Options Consultation

- Held between 26 November 2018 and 18 January 2019
- Presented shortlisted route options and associated information in order gauge support for each option and gain knowledge which could inform the preferred route recommendation and the development of the Strategic Outline Business Case
- 1,930 responses to the consultation received, most via the online questionnaire
- 64 stakeholder organisations, 41 members of the public and nine landowners responded by letter or email.



**wsp** 



### Options Selection Report (OSR)

- The OSR aims to provide a more detailed analysis for the NWL options based on a stage 2 assessment of the shortlisted options.
- The OSR assesses;
  - Engineering
  - Environment & Ecology
  - Traffic & Economics
  - Consultation
- The purpose of the OSR is to compare options with the aim of establishing a preferred route.

**Complementary Measures and Mitigation**

- The OSR makes recommendations on a Preferred Route and further work to be undertaken to determine a package of complementary sustainable transport measures and environmental mitigation, taking into account feedback from consultation.

**wsp** 

### OSR – Engineering Assessment

A simple six-rank matrix engineering decision matrix has been prepared to rank the relative performance of the route Options against decision criteria. 1 = best performing, 6 = worst performing.

| Engineering                                    | Route A | Route B (west) | Route B (east) | Route C | Route D (west) | Route D (east) |
|--|---------|----------------|----------------|---------|----------------|----------------|
| Horizontal Alignment, Land Use and Constraints | 6       | 5              | 4              | 1       | 3              | 2              |
| Junctions and Links                            | 6       | 3              | 2              | 1       | 4              | 4              |
| Topography and Profile                         | 1       | 3              | 4              | 2       | 6              | 5              |
| Structures                                     | 1       | 4              | 2              | 3       | 6              | 5              |
| Drainage                                       | 1       | 1              | 1              | 1       | 1              | 1              |
| Public Utilities                               | 4       | 3              | 2              | 1       | 6              | 5              |
| A47 Tie-in                                     | 1       | 2              | 2              | 2       | 5              | 6              |
| Departures from Standard                       | 1       | 6              | 5              | 1       | 1              | 1              |
| Buildability                                   | 4       | 3              | 2              | 1       | 6              | 5              |
| Overall  | 3       | 4              | 2              | 1       | 6              | 5              |

### OSR – Engineering Assessment

- **Horizontal Alignment, Land Use and Constraints**
  - Option A is within an existing narrow corridor with property frontages. Option B West and East have property accesses along the widened A1067, that need to be maintained. Option D West has several properties close to the A47 junction, and together with Option D East, is close to an existing reservoir.
- **Junctions and Links**
  - Route Option A requires several junctions with existing local roads. Options B-D are Grade separated so have junctions only at A1067 and A47.
- **Topography**
  - land is steeper further east, so Option D variants are the most challenging with more cut and fill and requirement to cross both Wensum and Tud rivers. Option B west is constrained to existing road levels at A1067 where it crosses the Wensum. Option C follows more closely to existing contours and Option A has best fit with the existing topography.
- **Drainage**
  - Sustainable drainage solution for all options, all assumed to perform the same.

**wsp** 

## OSR – Engineering Assessment

- **Structures**
  - Based on number and form of structures Option D crosses both Rivers Wensum and Tud. Option B West requires partial demolition and reconstruction of existing A1067 bridge(s) to widen the route.
- **Public Utilities**
  - Options B, C and D cross the Hornsea Strategic Cables and existing overhead powerlines but Option D also crosses strategic HP gas main. Online options affect existing utilities in the roads which would require diversion or protection.
- **A47 Connection**
  - Option A is expected to need minimal change to the HE A47 future junction. Options B and C are expected to require minor changes. Connection to Blind Lane/Taverham Road junction is more difficult for Option D West and East.
- **Buildability**
  - Option A is mostly online construction, so causes more disruption during construction and requires more traffic management. Options B cause more disruption to A1067.

13



## Environmental Modelling and Methodology

- **General**
  - Work done to date enables a comparison of alternate routes options on a like-for-like basis in order to identify the best route option in relative terms. In the next stage (EIA) we will assess the scheme and identify improvements and mitigation measures.
- **Noise**
  - The noise modelling was carried out in accordance with the WebTAG method referred to by the Government for assessing new road schemes. This modelling does not include mitigation measures such as acoustic fencing and low noise road surfaces, and takes a worst case scenario by assuming every sensitive receptor is down wind of the road (which is not possible in practice).
- **Air Quality**
  - The air quality appraisal has been carried out in accordance with WebTAG government guidance and makes no allowance for future advances in technology that are expected to reduce vehicle emissions. Similarly there is no account taken of emerging government zero carbon targets.
- **Green House Gases**
  - The modelling does not take account of any potential mitigation or make any allowances for the Government's target of the electrification of the vehicles fleet beyond 2030.

14



## OSR – Environmental Assessment

| Environmental Impacts       | Route Options  |   |   |   |   |
|-----------------------------|--|---|---|---|---|
|                             | Option A   | Option B West   | Option B East   | Option C  | Option D (west and east)  |
| <b>Noise</b>                | Considered to be the best option as it adversely affects (in terms of moderate and major impacts) the fewest properties. | Considered to be the worst option as it adversely affects (in terms of moderate and major impacts) the most properties. | Considered the third best option in terms of moderate and major adverse impacts on properties.                  | Considered the second best option in terms of moderate and major adverse impacts on properties.                 | Considered the second worst option in terms of moderate and major adverse impacts on properties.              |
| <b>Air Quality</b>          | Slight beneficial local air quality impact; affects fewest numbers of properties   | Negative local air quality impact   | Negative local air quality impact   | Negative local air quality impact   | Worst negative local air quality impact; affects largest numbers of properties                                |
| <b>Greenhouse Gases</b>     | Net present value (CO <sub>2</sub> e) of £8,651,484; lowest emissions of greenhouse gases                                | Net present value (CO <sub>2</sub> e) of -£1,362,774; second lowest emissions of greenhouse gases                       | Net present value (CO <sub>2</sub> e) of -£4,916,242; second highest emissions of greenhouse gases              | Net present value (CO <sub>2</sub> e) of -£4,163,216; third highest emissions of greenhouse gases               | Net present value (CO <sub>2</sub> e) of -£10,610,340; highest emissions of greenhouse gases                  |
| <b>Landscape</b>            | Slight Adverse   | Slight Adverse  | Moderate Adverse  | Moderate Adverse  | Moderate Adverse  |
| <b>Historic Environment</b> | Large Adverse  | Large Adverse   | Moderate Adverse  | Moderate Adverse  | Moderate Adverse  |
| <b>Biodiversity</b>         | Very Large Adverse   | Very Large Adverse  | Very Large Adverse  | Large Adverse   | Large Adverse   |
| <b>Water Environment</b>    | Minor Adverse  | Minor Adverse   | Moderate Adverse  | Moderate Adverse  | Moderate Adverse  |
| <b>Geology and Soils</b>    | This Option has the least exposure to the construction of embankments/piled structures over Alluvium layer.              | This Option has a limited exposure to construction of embankments and piled structure over Alluvium layer.              | This Option has a considerable exposure to construction of embankments and piled structure over Alluvium layer. | This Option has a considerable exposure to construction of embankments and piled structure over Alluvium layer. | This Option has the greatest exposure to construction of embankments and piled structure over Alluvium layer. |



## Environmental Effects Explained

- **Noise**
  - The noise modelling shows a mixed picture. Along the route of the NWL there will be an increase in noise, however, depending on the option, there will be a drop in some areas such as Ringland and Weston Longville as the NWL will take traffic away from the existing route network.
- **Air Quality**
  - In the short term there would be Air Quality benefits for all of the route options. However in the longer run, increases in vehicle km mean that there will be a negative impact on air quality for all options, except Option A. Option D has the worst negative local air quality impact.
- **Green House Gases**
  - In the short term the scheme will reduce Greenhouse Gas emissions, but over the sixty year modelling period it will attract more vehicle km, on all options except option A, and lead to an relatively small increase in greenhouse gases.
- **Landscape**
  - The landscape impacts have been assessed without any mitigation such as ancillary planting and the use of cuttings to screen the road. The "moderate adverse impact" on landscape for Route Options C, B (East) and D relates primarily to the crossing of the Wensum, but this route option offers some opportunities for mitigation such as ancillary planting and screening.

16



## OSR – Biodiversity Matrix

| Impact   | Routes |                     |                     |        |                 | Route with biggest impact |
|--|--------|---------------------|---------------------|--------|-----------------|---------------------------|
|  | A      | B (Western variant) | B (Eastern variant) | C      | D Both variants |                           |
| Ecological* Feature  |        |                     |                     |        |                 |                           |
| River Wensum SAC   | Red    | Red                 | Red                 | Yellow | Yellow          | B (Western variant)       |
| Barbastelle bats   | Red    | Red                 | Red                 | Yellow | Yellow          | A and B                   |
| Site of Special Scientific Interest (SSSI)                   | Red    | Red                 | Red                 | Yellow | Yellow          | B (Western variant)       |
| Ancient woodland – direct and indirect – approx. within 200m | Blue   | Blue                | Blue                | Yellow | Yellow          | D                         |
| Habitat of Principle Importance (HPI)                        | Blue   | Blue                | Blue                | Yellow | Yellow          | C and D                   |
| Woodland   | Blue   | Blue                | Blue                | Yellow | Yellow          | C and D                   |
| County Wildlife Sites  | Blue   | Blue                | Blue                | Yellow | Yellow          | D                         |
| Watercourses (excluding the River Wensum)                    | Blue   | Blue                | Blue                | Yellow | Yellow          | D                         |
| Habitat fragmentation  | Blue   | Blue                | Blue                | Yellow | Yellow          | D                         |
| Pond loss  | Red    | Red                 | Red                 | Yellow | Yellow          | A                         |
| Reduction in HPI quality                                     | Blue   | Blue                | Blue                | Yellow | Yellow          | D                         |
| Number of hedgerows dissected                                | Yellow | Yellow              | Yellow              | Yellow | Yellow          | B (Western variant)       |

**Key**  
Red Likely Impacts  
Red Major  
Orange Moderate  
Blue Minor  
Grey Not applicable

\*Features are presented in order of significance in relation to legislation and policy.  
 NB: Mitigation not included in assessment



## Achieving Biodiversity Net Gain

**Definition:**  
*Biodiversity net gain is development that leaves biodiversity in a better state than before. It is the end result of a process applied to development so that overall, there is a positive outcome for biodiversity.*

- We are currently assessing the condition of the habitats likely to be impacted by the NWL and will be using the national Defra metric to assess biodiversity loss and then devising a compensation strategy in consultation with local wildlife groups.
- The strategy to achieve biodiversity net gain through habitat creation and restoration, is likely to focus on woodland and wetland which is in line with Natural England's aspirations for the project.
- The habitat creation will focus on benefiting species of conservation concern which have been recorded within the study area including the Barbastelle bat.

18



### OSR – Traffic

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- The NWL model covers the majority of Norfolk with all of the roads within the Norwich urban area included in the simulation network.
- The diagram below shows the base year 2015 network extents.

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### OSR – Traffic

Norfolk County Council

#### Traffic Flow Map

Key road sections and their traffic flow data:

- 54 km² 2 way traffic flow:** Do Nothing: 5,575; Option A: 6,514; Option B: 25,978; Option C: 11,070; Option D: 35,812
- Do Nothing:** 19,895; Option A: 19,042 (4.3%); Option B: 35,062 (7.5%); Option C: 38,114 (9.2%); Option D: 37,024 (8.8%)
- Do Nothing:** 15,905; Option A: 15,042 (4.1%); Option B: 28,062 (6.2%); Option C: 28,114 (6.2%); Option D: 29,709 (6.4%)
- Do Nothing:** 5,007; Option A: 872 (1.8%); Option B: 595 (1.2%); Option C: 594 (1.2%); Option D: 970 (2.0%)
- Do Nothing:** 5,242; Option A: 5,047 (1.2%); Option B: 418 (0.8%); Option C: 387 (0.7%); Option D: 379 (0.7%)
- Do Nothing:** 7,389; Option A: 7,460 (1.0%); Option B: 7,543 (1.0%); Option C: 6,658 (0.9%); Option D: 5,694 (0.8%)
- Do Nothing:** 43,317; Option A: 45,244 (4.4%); Option B: 43,524 (1.0%); Option C: 42,000 (0.7%); Option D: 46,993 (8.8%)

### OSR – Cost Estimates & Economics

Norfolk County Council

| Cost £       | Option A          | Option B West      | Option B East      | Option C           | Option D West      | Option D East      |
|--------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Base cost    | 45,686,567        | 99,598,036         | 120,279,642        | 114,780,854        | 134,854,823        | 125,523,543        |
| Risk         | 10,742,272        | 21,504,589         | 27,352,083         | 26,872,937         | 30,729,522         | 29,020,000         |
| Inflation    | 4,218,618         | 9,254,385          | 10,485,666         | 11,030,579         | 12,580,924         | 11,892,958         |
| <b>TOTAL</b> | <b>60,647,447</b> | <b>130,357,009</b> | <b>158,117,391</b> | <b>152,684,370</b> | <b>178,165,269</b> | <b>166,436,501</b> |

|                             | Option A | Option B West | Option B East | Option C | Option D West | Option D East |
|-----------------------------|----------|---------------|---------------|----------|---------------|---------------|
| Adjusted Benefit Cost Ratio | 1.4      | 2.6           | 2.2           | 2.5      | 1.9           | 2.0           |
| Adjusted VFM Category       | Low      | High          | High          | High     | Medium        | High          |

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### Analysis of Monetised Costs and Benefits - Adjusted

Norfolk County Council

|                                 | Route Options |               |               |          |               |               |
|---------------------------------|---------------|---------------|---------------|----------|---------------|---------------|
|                                 | Option A      | Option B West | Option B East | Option C | Option D West | Option D East |
| Present Value of Benefits (PVB) | 76,991        | 313,143       | 326,245       | 358,358  | 311,164       | 311,164       |
| Present Value of Costs (PVC)    | 54,351        | 119,584       | 147,782       | 142,858  | 166,523       | 155,251       |
| Net Present Value (NPV)         | 22,640        | 193,559       | 178,463       | 215,500  | 144,641       | 155,913       |
| Benefit Cost Ratio (BCR)        | 1.42          | 2.62          | 2.21          | 2.51     | 1.87          | 2.00          |

E000s 2010 prices, discounted to 2010

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### OSR – Consultation

Norfolk County Council

| Response type                                 | Number of qualitative responses |
|---|---------------------------------|
| Questionnaire responses                       | 1,711                           |
| Letters/emails from public                    | 41                              |
| Letters/emails from stakeholder organisations | 64                              |
| <b>Total</b>                                  | <b>1,816</b>                    |

#### Which options did people support as a Norwich Western Link?

| Option                                     | Number of supporters |
|--|----------------------|
| Option A                                   | 52                   |
| Option B - Route using existing bridge     | 90                   |
| Option B - Route with new viaduct          | 118                  |
| Option C                                   | 298                  |
| Option D                                   | 507                  |
| None of them, but something should be done | 44                   |
| None of them, do nothing                   | 104                  |

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### OSR – Consultation

Norfolk County Council

#### Responses to consultation questionnaire

How effective did people think each of the options would be as a Norwich Western Link? (100% stacked)

Legend: Not very effective (Red), Fairly ineffective (Orange), Neutral (Yellow), Fairly effective (Green), Very effective (Dark Green)

| Option                                 | Not very effective | Fairly ineffective | Neutral | Fairly effective | Very effective |
|--|--------------------|--------------------|---------|------------------|----------------|
| Option A                               | ~45%               | ~35%               | ~15%    | ~5%              | ~0%            |
| Option B - Route using existing bridge | ~25%               | ~25%               | ~25%    | ~20%             | ~5%            |
| Option B - Route with new viaduct      | ~20%               | ~20%               | ~20%    | ~35%             | ~5%            |
| Option C                               | ~15%               | ~15%               | ~15%    | ~45%             | ~10%           |
| Option D                               | ~10%               | ~10%               | ~10%    | ~55%             | ~15%           |

WSP Norfolk County Council

## OSR – Consultation

### Letter and email responses

- 64 responses from stakeholder organisations, 41 from members of the public and nine from landowners
- Stakeholders who responded included:
  - District and parish councils and elected representatives
  - Statutory environmental and heritage bodies
  - Non-statutory environmental and campaign groups
  - Walking and cycling groups
  - Businesses
  - New Anglia Local Enterprise Partnership
  - Norfolk Chamber of Commerce
  - Norfolk Constabulary
  - Norfolk and Norwich University Hospital
  - Highways England

25



## OSR – Consultation

### Letter and email responses

- Generally, support for individual options mirrored that from the consultation questionnaire:
  - Most support for Option D followed by Option C
  - Comparatively little support for either version of Option B or Option A
- Landowners affected by one or more options were generally in favour of the alternatives proposed
- Common theme in stakeholder comments related to environmental effects and concerns about the impact of all options.

26



## Option Summary

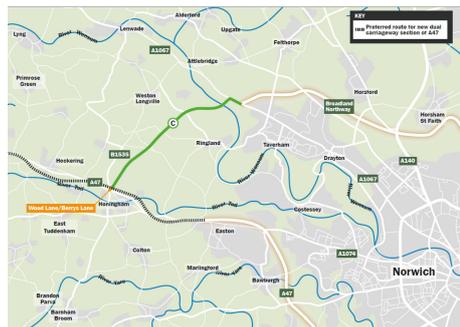
- Option A has the lowest value for money and the least support.
- Option B west has a poor level of support, and has a significant impact on the river Wensum SAC.
- Option B east also has a poor level of support, and whilst it mitigates the impact on the SAC, it does (like Option A and B west) impact on Barbastelle bats (an Annex 2 protected species).
- Option C provides the best balance in terms of engineering, environment and ecology impacts, public support, cost and traffic benefits.
- Option D (west and east) is the most popular option based on consultation responses, however it is also the most expensive (D west also being more than D east), has a greater environmental impact (compared with option C), and offers less value for money (compared with both B options and C).

27



## Preferred Route

Option C is recommended as on balance, it provides the overall best route for the NWL in terms of value for money, traffic benefits, environmental impact, engineering complexity, impact on communities, public acceptability and fulfilment of the project objectives.



28



## Next Steps

| Milestone   | Current estimate           |
|---|----------------------------|
| Regional priority status agreement – Transport East meeting   | July 2019                  |
| Preferred route established – decision at July Cabinet  | 15 <sup>th</sup> July 2019 |
| Strategic Outline Business Case (SOBC) together with the Regional Evidence Base (REB) submission to DfT | July 2019                  |
| Outline Business Case (OBC) submission  | January 2020               |
| Design and Build Contractor appointment   | October 2020               |
| Formal Pre-application Public Consultation  | February 2021              |
| Planning Application submission   | April 2021                 |
| Full Business Case (FBC) submission   | July 2022                  |
| Start of construction work  | Late 2022                  |
| Road open   | Early 2025                 |

29



## Recommendations

### Cabinet are asked to agree:

- To submit the Strategic Outline Business Case (SOBC) to DfT via Transport East as part of their Regional Evidence Base by the end of July 2019.
- That a road-based transport intervention is the most appropriate solution to address the identified transport issues affecting the area and to select Option C as the preferred route for the Norwich Western Link in order for the Council to make a Preferred Route Announcement (PRA).
- To bring forward project development spend to FY2019/20 in order to maintain the project delivery programme.

30

