

ABERDEEN CITY COUNCIL

COMMITTEE	Communities, Housing and Infrastructure
DATE	16 January 2018
REPORT TITLE	Fraserburgh, Peterhead and Ellon to Aberdeen Strategic Transport Study Update
REPORT NUMBER	CHI/17/298
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1. PURPOSE OF REPORT:-

This report advises Members of the findings of the additional work to further develop the road and rail elements Fraserburgh & Peterhead and Ellon to Aberdeen Strategic Transport Study - Part 1 Appraisal. The Part 1 appraisal report has been developed by Nestrans with input from Aberdeen City Council, Aberdeenshire Council and Transport Scotland, and considers appropriate option packages for taking forward to a Part 2 Appraisal.

2. RECOMMENDATION(S)

It is recommended that Committee:-

- a) Note the contents of this report;
- b) Agree the findings of the additional work in support of the Fraserburgh & Peterhead and Ellon to Aberdeen Strategic Transport Study - Part 1 Appraisal Report;
- c) Instruct the Head of Planning and Sustainable Development to respond to Nestrans advising that this Council agrees that the 'Road & Bus' option package is taken forward for a more detailed assessment in a STAG Part 2;
- d) Instruct the Head of Planning and Sustainable Development to respond to Nestrans advising that this Council agree that the 'Rail and Bus' option is taken forward as part of the wider regional rail considerations through the City Region Deal Strategic Transport Appraisal; and
- e) Instruct the Head of Planning and Sustainable Development to continue to update this Committee via the Service Update on this project as matters progress.

3. BACKGROUND/MAIN ISSUES

3.1 In 2015, Nestrans commissioned the Fraserburgh, Peterhead and Ellon to Aberdeen Strategic Transport Study to identify and examine options for improving transport connections between Fraserburgh, Peterhead, Ellon and Aberdeen, in accordance with STAG (Scottish Transport Appraisal Guidance) principles.

3.2 A STAG Part 1 report was submitted in March 2016, identifying and appraising a wide range of options including road, rail and bus opportunities to improve strategic travel options within the corridor. The report and supporting documents are available on the Nestrans website:

<http://www.nestrans.org.uk/projects/studies/documents-studies/>.

3.3 A report was presented to this Committee on 12 May 2016 summarising the STAG Part 1 Appraisal outcomes. Subsequent to this report, Nestrans commissioned further work to be undertaken to develop and refine the road and rail packages of potential measures to be taken forward for more detailed STAG Part 2 Appraisal. The additional appraisal work to further develop the STAG Part 1 appraisal is as follows:

- 1) A feasibility study looking at the costs, benefits and likely patronage of a reopened rail service between, Dyce, Newmachar and Ellon; and
- 2) A more detailed appraisal of prospective road upgrades on the A90(T) and A952, providing indicative schemes, costs and benefits.

3.4 These reports have now been received and the findings were presented to the Nestrans Board on 3 November 2017 and at a briefing for Local Councillors, MP's, MSP's and MEP's. At their formal meeting on 3 November 2017, the Nestrans Board agreed to seek the views of Aberdeen City Council and Aberdeenshire Council for consideration at a subsequent Nestrans Board meeting in February 2018.

3.5 The main findings of the reports are summarised below, with infographics outlining key points included as appendices to this report. Full reports and executive summaries are available from the Nestrans website:

<http://www.nestrans.org.uk/projects/studies/documents-studies/>.

Rail Study Outcomes Summary

3.6 Three options for an improved rail network were considered for further appraisals on connecting Aberdeen/Dyce to an Ellon town centre station, allowing future extensions north to remain possible, and based on the alignment of the existing Formartine and Buchan Way.

- Option 1: Aberdeen/Dyce-Newmachar-Ellon Town Centre (hourly service with new stations at Newmachar and Ellon Town Centre);
- Option 2: Aberdeen/Dyce-Newmachar- Ellon Town Centre (half-hourly service with new stations at Newmachar and Ellon Town Centre); and

- Option 3: Aberdeen/Dyce-Newmachar-Ellon Town Centre-Ellon Park and Ride (half-hourly service with new stations at Newmachar, Ellon Town Centre and Ellon Park and Ride).
- 3.7 In accordance with STAG, options were assessed against the study's Transport Planning Objectives (TPOs), the STAG criteria (Environment, Safety, Economy, Integration, and Accessibility and Social Inclusion), feasibility, affordability, and public acceptability.
- 3.8 All options were found to perform favourably against the TPOs. When assessed against the STAG criteria, all options are likely to:
- 1) Have positive impacts on safety, integration and accessibility and social inclusion;
 - 2) Have negative environmental impacts resulting from construction activity and landscape impact, albeit there could be a reduction in emissions resulting from a transfer of trips from road to rail; and
 - 3) Perform poorly against the economic criteria with Benefit to Cost Ratios (BCRs) between 0.24 and 0.28.

Alterations to Existing Track within Aberdeen

- 3.9 While all options are considered operationally and technically feasible, each would present a number of challenges to overcome, particularly Options 2 and 3 which would require elimination of the single-track section north of Aberdeen, which is not included within the planned infrastructure enhancements between Aberdeen and Inverurie. All schemes are likely to have a high level of public acceptability.
- 3.10 The planned enhancement of the existing Aberdeen to Inverurie route leaves a short section of single line north of Aberdeen and beyond the Schoolhill and Hutcheon Street tunnels. This section will therefore limit capacity for trains running to Ellon while also maintaining the planned services on the existing network. The doubling of the tracks through these tunnels was the subject of previous feasibility considerations as part of the Aberdeen to Inverurie Route Enhancement project. This found that in order to provide a double track alignment through these tunnels significant track lowers would be required. As well as the requirement for track lowers and / or installation of slab track and the associated construction issues and disruption to the existing railway network, the double tracking would also impact on existing drainage throughout the tunnels which would need to be relocated. Similarly, any existing cable routes through the tunnels would need to be relocated.
- 3.11 Any associated alterations to the platforms at Aberdeen were not considered as part of the Aberdeen to Inverurie Route Enhancement project study. The outline operational feasibility assessment undertaken for this project has not identified a requirement for any platform changes at Aberdeen Station to accommodate the additional services considered in this study, although this should be subject to further detailed assessment as options are developed further.

- 3.12 It should also be noted that any alterations that increase capacity through the tunnels, and any associated capacity increases at Aberdeen Station, are likely to have benefits beyond the Aberdeen – Dyce – Ellon route and could unlock future capacity enhancements for other routes through Aberdeen. Nestrans Regional Transport Strategy sets out the aspirations for developing Aberdeen’s rail network, with the potential for additional cross-city rail connections understood to be a potential consideration of the Aberdeen City Region City Deal proposals.
- 3.13 A possible alternative option for facilitating a half-hourly service to Ellon might be to provide a double track railway between Dyce and Newmachar. This has not been investigated as part of this study but may offer an alternative to re-doubling the line through the tunnels north of Aberdeen. However, it should be noted that this option would restrict potential benefits to the Ellon services only and not provide potential wider benefits to all services north of Aberdeen.
- 3.14 In terms of affordability, each option would incur significant capital costs, ranging from £273 million for Option 1 to £381 million for Option 3. Furthermore, all options are anticipated to require significant operating subsidy as per the majority of local rail services.
- 3.15 Therefore, reinstatement of the railway line performs positively in transport appraisal terms. There is a strong case for the scheme when considering the TPOs, public acceptability, safety, integration and social inclusion. It would be technically feasible, albeit challenging to deliver. However, given the infrastructure investment required, there would be significant concerns over the value for money and affordability of each option, with capital costs likely to outweigh the benefits derived, and operating subsidies required from opening year.

Summary of the Road Study Outcomes

- 3.16 Key findings of the additional research are:
- 1) Flows between Ellon and Toll of Birness are in excess of those recommended for a single carriageway, therefore upgrading to a dual carriageway is justifiable;
 - 2) A high proportion of Heavy Goods Vehicles (HGVs) use the route which leads to a reduction in journey time reliability, and a lack of overtaking opportunities leading to driver frustration and potential accidents;
 - 3) Average speeds on the A90(T) and A952 are considerably lower than posted speed limits;
 - 4) Journey times north of Ellon on the A90(T) and A952 are forecast to increase, especially between Ellon and Toll of Birness, as the land allocations in the Aberdeenshire Local Development Plan (LDP) are built out; and
 - 5) Four sections of the strategic road network in the study area have a higher than expected proportion of fatal accidents.
- 3.17 The Option package subject to further Appraisal therefore encompassed:

- 1) Dualling of the A90(T) between Ellon and Toll of Birness;
- 2) Phased dualling of the A90(T) Ellon bypass;
- 3) Upgrade of Toll of Birness to a roundabout or grade-separated junction;
- 4) Upgrade of Cortes junction to a two-lane roundabout;
- 5) Improvements to the A90(T)/A948 and A90(T)/B9005 roundabouts; and
- 6) Overtaking lanes and safety improvements at key locations.

3.18 Traffic modelling suggests that:

- 1) The proposed interventions could provide benefits to journey times and queue lengths on the A90(T) and A952 in a 2023 scenario;
- 2) Predicted traffic growth will significantly increase queuing southbound on the A952 approach to the Toll of Birness without an intervention at this location. This is due to the increase in traffic on the A90(T) in both directions, not allowing for suitable gaps for A952 traffic to join the A90(T), potentially leading drivers to accept smaller and less safe gaps, which could result in more accidents;
- 3) Upgrading the Toll of Birness to a roundabout or grade separated junction will give large benefits to A952 southbound traffic in the AM and PM peak periods, reducing journey times in a 2023 demand scenario by approximately 25 minutes (AM) and 30 minutes (PM); and
- 4) Toll of Birness improvements may increase congestion for northbound traffic on the A90(T) Ellon bypass in the PM period, so work is required at the A90(T)/A948 roundabout.

3.19 The Appraisal concludes that the option package:

- 1) Generally has positive or neutral impacts against the TPOs;
- 2) Generally has positive impacts on the STAG criteria, other than environment, on which there is likely to be a minor negative impact resulting from construction impacts and land take, increased carbon emissions, noise and exposure to air pollutants, and potential adverse effects on the River Ythan Estuary should the A90(T) be upgraded to dual carriageway at this location;
- 3) Is nevertheless likely to be feasible from an environmental regulatory perspective;
- 4) Presents no major technical feasibility issues; and
- 5) Is likely to have a high level of public acceptability.

3.20 An option package, representing the most economically viable set of interventions due to the journey time savings achievable at relatively low cost (£10 million to £15 million) under both low and high traffic growth scenarios could be presented as a first phase of improvements and could provide significant benefits, with a BCR ranging from 1.9 in a low growth scenario to 56.2 in a high growth scenario. In the short term, this would include:

- 1) A90(T)/A952 Toll of Birness roundabout;
- 2) A90(T)/A952 Cortes roundabout;
- 3) A90(T)/B9005 and A90(T)/A948 roundabout improvements;
- 4) Overtaking sections on A90(T) and A952; and
- 5) Safety improvements on A90(T) and A952.

These schemes will provide significant initial benefit to all road users and should be designed to tie in with future upgrades.

- 3.21 As further local growth and development is achieved and the LDP allocations built out, additional interventions may be necessary, namely dualling of the A90(T) from Ellon to Toll of Birness (in the medium term) and of the A90(T) Ellon bypass (longer term). The estimated cost of the entire option package is in the range of £35 million to £52 million, with the highest benefits derived if interventions are designed to have their construction order phased.
- 3.22 Evidence from, and outcomes of, these studies are feeding into the wider study of the region's future transport infrastructure requirements, the Strategic Transport Appraisal, currently being undertaken as part of the Aberdeen City Region Deal. In addition they will also form part of the input to the subsequent updates to the Regional and National Transport Strategies and an updated Strategic Transport Projects Review.

4. FINANCIAL IMPLICATIONS

- 4.1 The study to date has been funded by Nestrans and Transport Scotland and a budget for a STAG Part 2 Appraisal will be considered as part of future Nestrans programmes.
- 4.2 Any future financial implications for Aberdeen City Council will be included in future reports as new information becomes available.

5. LEGAL IMPLICATIONS

None at this time although all options assessed will likely have property and environmental implications which will require legal input as part of the delivery of any approved options.

6. MANAGEMENT OF RISK

- 6.1 **Financial** - There is no financial risks as a result of the recommendations of this report. However, future funding beyond the Part 2 Appraisal stage is uncertain and consideration will have to be given to funding sources to continue beyond the appraisal stage to detailed design and delivery of any approved option.
- 6.2 **Employee** - There are no employee risks as a result of the recommendations of this report, however, further consideration to any future risks will be addressed through the future reports to committee.
- 6.3 **Customer/Citizens** - There are risks affecting customers, citizens and visitors alike relating to a transport network which does not reflect the changing needs of the economy, society and personal health and wellbeing and specifically in access requirements for the movement of people and goods around the region

- 6.4 **Environmental** - There are no environmental risks as a result of the recommendations of this report and further consideration to such risks will be addressed as part of future project stages and will be reported in future reports to committee at each key stage.
- 6.5 **Legal** - There are no legal risks as a result of the recommendations of this report, however, further consideration to any such future risks will be addressed through the future reports to committee.
- 6.6 **Technological** - There are no technological risks as a result of the recommendations of this report, however, further consideration to any future risks will be addressed through the future reports to committee.
- 6.7 **Reputational** - There is reputational risk to the Region of not investing in transport infrastructure that caters for the needs of a high performing international economy by providing transport facilities which allow the efficient movement of people and goods around the region.

7. IMPACT SECTION

7.1 Economy:

Positive decision making informing the corridor directly supports a range of policies and strategies that will benefit the economy including:

Aberdeen – the Smarter City vision:

- We will provide and promote a sustainable transport system, which reduces our carbon emissions.

Local Outcome Improvement Plan:

The Local Outcome Improvement Plan (LOIP) 2016-26 for Community Planning in Aberdeen (CPA) recognises a commitment to investing in infrastructure that caters for the needs of a high performing international city economy by providing roads with capacity to cope with the demands of business along with extensive air and sea links. Delivery of improvements on the A90(T) and A952 to the north of Aberdeen will assist in the priority of improving access to Aberdeen from the north.

7.2 People:

A defined, fully resourced programme of delivery for transport schemes, which includes improvements to the A90(T) and A952 to the north of Aberdeen, will assist in improving access to key economic facilities, enabling all people to share in the success that such facilities will provide to the Region

The contents of this report are likely to be of public and media interest as it relates to transport infrastructure at a key locations to the north of the city and therefore would contribute to a significant improvement to the movement of

people and goods for the City and Region. A Privacy Impact Statement is not required for this report.

An Equalities and Human Rights Impact Assessment (EHRIA) has not been undertaken on this report as the Regional Transport Strategy from which the transport infrastructure scheme is an integral part has been subject to the appropriate assessments. Future Committee reports on the detailed design of any preferred option would be the subject of an EHRIA.

7.3 **Place:**

The contents of this report and the recommendations relate to the delivery of transport infrastructure improvements which will assist in improving access to the City from the wider region to the north. All options assessed will likely have environmental implications which will require appropriate mitigation as part of the delivery of any preferred and approved option. Consideration will be given to environmental impact as part of the ongoing appraisal process.

7.4 **Technology:**

The continuing assessment will include consideration of the use of appropriate technology to assist the flow of traffic along this corridor.

8. **BACKGROUND PAPERS**

Report to Council – 17 May 2016 - Fraserburgh & Peterhead to Aberdeen Strategic Transport Study

77316 Fraserburgh & Peterhead to Aberdeen Strategic Transport Study Pre-Appraisal Report

77527 Fraserburgh & Peterhead to Aberdeen Strategic Transport Study - Part 1 Appraisal Report

77527 Fraserburgh & Peterhead to Aberdeen Strategic Transport Study - Part 1 Appraisal Report – Appendix

9. **APPENDICES**

Appendix 1 – Road Summary Infographic

Appendix 2 – Rail Summary Infographic

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