

**QUEEN ADELAIDE TRAFFIC STUDY**

**To:** Economy and Environment Committee

**Meeting Date:** 8 February 2018

**From:** Graham Hughes, Executive Director Place and Economy.

**Electoral division(s):** Burwell, Ely North, Ely South, Littleport, Soham North and Isleham, Soham South and Haddenham, Sutton, Woodditton.

**Forward Plan ref:** Not applicable      **Key decision:**  
No

**Purpose:** To consider the results of the Queen Adelaide Traffic Study.

**Recommendation:** The Committee is asked to:

- a) Note the proposals for wider regional and national benefits, of increased rail capacity through Ely North Junction;
- b) Note the potential impact on the whole community, residents and local businesses of increased frequency and duration of level crossing closures;
- c) Agree to oppose any measures that restrict traffic flow across the level crossings to the detriment of residents and local businesses until alternative solutions are put in place;
- d) Note the intention to explore opportunities with the Cambridgeshire and Peterborough Combined Authority to fund the options development for a road bridge solution (Options 7 or 8 of the traffic study) and;
- e) Agrees to continue to work with the Combined Authority, Network Rail and the Ely Area Task Force to develop a comprehensive road solution that meets the needs of all Cambridgeshire residents and in particular the communities of Queen Adelaide, Prickwillow and Ely.

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## **1. BACKGROUND**

- 1.1 Five railway lines converge on Ely from Cambridge, Newmarket, Norwich, King's Lynn, and Peterborough. The lines to King's Lynn, and Norwich split from the Ely-Peterborough line at Ely North Junction. In the early 1990s the line from Cambridge to King's Lynn was electrified and to keep costs down the junction layout was simplified. This limited the number of trains that could use the junction and with growing demand for both passenger and freight trains this is now a serious strategic constraint on the wider railway network in East Anglia. As a result Network Rail have been considering a project to upgrade the rail junction and release additional capacity through this key bottleneck.
- 1.2 Any increase in rail capacity at the Ely North Junction will have impacts on the level crossings in the area from increased train numbers and additional barrier down time. This report summarises the results of a traffic survey in this area which considers the existing situation, and the impact of any future proposal by Network Rail to change or close any level crossings.

### **Benefits**

- 1.3 The Government have committed through the existing rail franchises to increase the King's Lynn – Cambridge service from hourly to half hourly and to increase the Ipswich-Peterborough service from two hourly to hourly. In addition there is pressure to increase the frequency of other services that pass through the junction from hourly to half hourly: Norwich – Cambridge, Birmingham – Stansted and Liverpool – Norwich (which reverses at Ely passing through the junction twice on each trip). There is also a desire for a Wisbech to Cambridge service and for an increased number of container trains from Felixstowe to Nuneaton. Although the Ely North junction works will increase capacity it will not be sufficient for all of these desires to be met and decisions will be required on which services are most needed.
- 1.4 The benefits to Cambridgeshire of improving the Ely North junction are both direct through better train services, e.g. Littleport will benefit from the enhanced King's Lynn service, and the business case for a new station at Soham will be much higher with an enhanced Ipswich – Peterborough service. Even where train service frequencies aren't enhanced passengers on those routes will benefit from better connectivity and reliability at Ely. The benefits are also indirect through fewer vehicles on the A10, and in the case of an increase in rail freight services, fewer heavy goods vehicles on the A14.

### **Level Crossings**

- 1.5 North of the rail junction all three lines cross the B1382 at Queen Adelaide. The Peterborough and King's Lynn line crossings are very close together. The Norwich line crosses the river and Queen Adelaide Way on a bridge before crossing the B1382 at a level crossing.

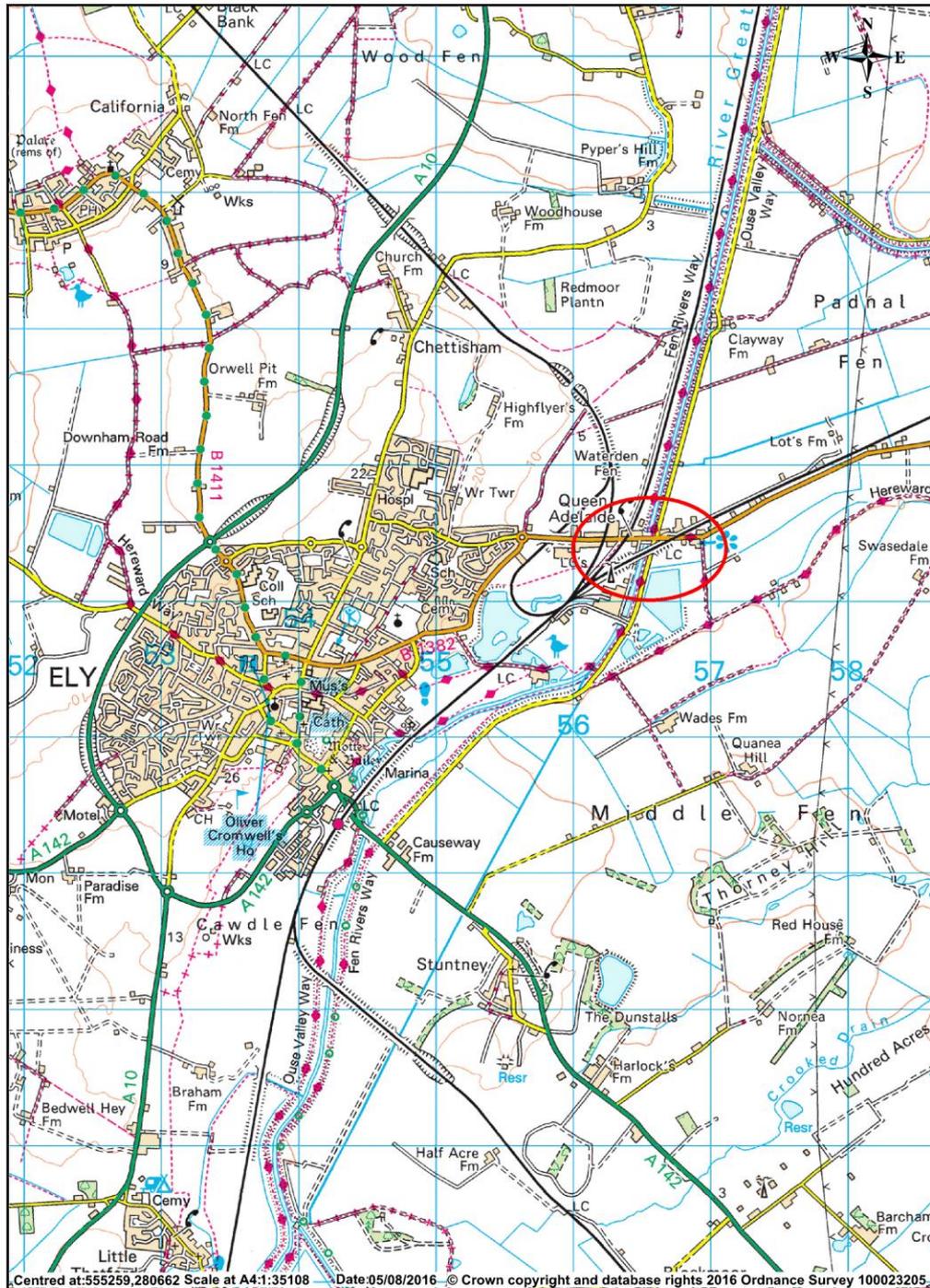


Figure 1: Queen Adelaide Level Crossing location

1.6 Increasing the number of trains will impact on traffic and safety at the level crossings. Network Rail are required to consider the risks of increasing the number of trains on the level crossings, and to manage the risk to be as low as reasonably possible. In carrying out that work they identified significant safety concerns if train numbers increased, in particular the risk of traffic blocking back from one crossing on to another was likely to increase substantially. It was also likely that the current half barrier crossings would need to be

replaced with full barrier crossings, which are closed for much longer, increasing barrier down time and therefore queuing traffic.

## **Current Position**

- 1.7 In 2015 Network Rail approached the County Council seeking assistance with the highway issues as their project had effectively come to a halt over the issues identified at the level crossings. Network Rail recognised that closing the crossings would not be acceptable to the Council or stakeholders, but that providing a new road to bypass or replace the crossings would very substantially increase the cost of the project.
- 1.8 At around the same time Sir Peter Hendy was appointed as Chairman of Network Rail and was tasked with reviewing all current projects in the light of substantial delays and increased costs. The Hendy review cut Network Rail's funding for the project. Local MPs led by Liz Truss held a summit to try and restart the project. This led to the establishment of a local authority led task force with membership from Norfolk, Suffolk and Cambridgeshire Counties and Districts and both Local Enterprise Partnerships (LEPs), Network Rail, Train Operators and the Department for Transport (DfT).
- 1.9 In order to understand traffic movements over the crossings and in the wider area affected the Council commissioned a traffic study in November 2016 to establish a baseline from which options could be developed, and to outline initial ideas and proposals.
- 1.10 The two LEPs plus the Strategic Freight Network (a grouping of freight train operating companies) agreed to fund Network Rail development of proposals for both the junction and all other aspects of increasing train numbers on these lines, all with a view to securing funding from the DfT for implementation in the next Network Rail five year Control Period starting in 2020. Network Rail will have a rail scheme developed by summer 2019.
- 1.11 The baseline traffic study is now complete and has included a public engagement session to gather information from local people on how they use the crossings.
- 1.12 A Summary of the Traffic Study is provided in section 2 below. The full Traffic Study is available as appendix 1.

## **1 MAIN ISSUES**

- 2.1 The below provides a summary of the report of the Queen Adelaide Level Crossing Traffic Study that is provided as Appendix 1.
- 2.2 The report is structured in the following five sections.
  - Phase 1 investigation of current situation using traffic surveys carried out in November/December 2016 using Automatic Traffic Counters (ATCs) and Automatic Number Plate Recognition (ANPR) surveys
  - Phase 2 used transport modelling to investigate the possible future situation at the level crossings, taking account of developments such as Ely North and the Ely Southern Bypass
  - Phase 3 investigated the impact of level crossing closures including potential rerouting of traffic. This section investigates the impact on public transport and emergency services
  - Phase 4 investigates the possibilities of reducing traffic over the level crossings,

- using mechanism such as Traffic Regulation Orders (TROs)
- Phase 5 investigates road based infrastructure solutions such as bridges or level crossing replacements

2.3 On an average week day 4,800 vehicles crossed the Peterborough and Kings Lynn level crossings with 3,400 crossing the Norwich line.

The report in Appendix 1 provides a greater breakdown of the traffic survey data including vehicle classification and queue length data.

2.4 The Study considered eight initial options for reducing traffic over the Queen Adelaide level crossings. It should be noted that alternative provision for pedestrians and cyclists has been considered as being needed to be provided separately to the proposals outlined below.

- Option 1 Restricting all traffic through the Peterborough and Kings Lynn level crossings
- Option 2 Allowing local traffic through the Peterborough and Kings Lynn level crossings
- Option 3 Implementation of a One-Way system with no exemptions
- Option 4 Implementation of a One Way system with exemption for local traffic
- Option 5 Restricting all traffic through the Norwich line
- Option 6 Allow local traffic through the Norwich line
- Option 7 Implementing a bridge over the Peterborough line
- Option 8 Constructing a bypass north of Queen Adelaide

2.5 The table below provides a summary of the eight options set out in the report and their impact on the rail network, traffic flow over the level crossings and the impact on the wider transport network. Note that PBO is the line to Peterborough, KLN is the line to King's Lynn and NRW the line to Norwich.

**Table 1 Summary of options**

<b>Proposal</b>	<b>Rail impact</b>	<b>Benefits</b>	<b>Issues</b>
Option 1 - Restricting ALL traffic through PBO & KLN	PBO & KLN lines increased capacity 100%	PBO & KLN lines increased capacity, low cost, no enforcement	Local traffic impacted, increased journey times, negative impact on businesses, extra traffic on wider road network
Option 2 - Local traffic only through PBO & KLN	PBO & KLN lines increased capacity from existing	PBO & KLN lines increased capacity, low cost, local traffic not impacted	Increased journey times, negative impact on businesses, extra traffic on wider road network, enforcement required
Option 3 - Implementation of a One-Way system with no exemptions	PBO & KLN lines increased capacity from existing	PBO & KLN lines increased capacity, low cost, local businesses still receive passing trade	Local traffic impacted on return journey, increased journey times, extra traffic on wider road network, enforcement required
Option 4 - Implementation of a One-Way system with exemption for local traffic	PBO & KLN lines increased capacity from existing	PBO & KLN lines increased capacity, low cost, local businesses still receive passing trade, local traffic not impacted	Increased journey times, extra traffic on wider road network, enforcement required, uncertainty over TRO
Option 5 - Restricting ALL traffic through Norwich line	NRW line increased capacity 100%	NRW line increased capacity, low cost, no enforcement	Local traffic impacted, particularly Prickwillow, Increased journey times, negative impact on businesses, extra traffic on wider road network

Option 6 - Allow local traffic through Norwich line	NRW line increased capacity from existing	NRW line increased capacity, low cost, local traffic not impacted	Increased journey times, negative impact on businesses, extra traffic on wider road network, no benefit to PBO or KLN line, enforcement required
Option 7 - Implementing Bridge over PBO	PBO & KLN lines increased capacity 100%	PBO & KLN lines increased capacity, no impact to any traffic, local businesses not impacted, no TRO	High cost, possible need for compulsory purchase of property, potentially poor BCR score, maintenance
Option 8 - Constructing a Queen Adelaide Northern By-Pass	PBO, KLN & NRW lines increased capacity 100%	All lines increased capacity, minor impact for local traffic, no TRO	High cost, negative impact businesses, poor BCR score, maintenance

- 2.6 In September 2017 the County Council and Network Rail ran an engagement event. The aim of the event was to have an initial conversation with local residents and businesses in advance of any proposals being developed to understand more about the way residents and businesses use the local roads and the three level crossings.
- 2.7 A full report into the engagement is provided in chapter 4 of appendix 1. In summary both the public and businesses were very concerned around the impacts of any potential level crossing closures and the impacts this would have regarding access to employment, customers, education and key services. There were a large number of concerns regarding the additional trip length both in time and fuel costs. There were also concerns regarding access for emergency services.
- 2.8 It is clear from the above that residents and businesses in Queen Adelaide and Prickwillow and further afield have serious concerns regarding any changes to the level crossings on the B1382. This road provides a vital link to Ely for a variety of key services, employment and education. The road also provides access for customers to businesses in the area and provides access to fields and farm yards.
- 2.9 The B1382 is also used by a wider population than just those who live in the villages of Queen Adelaide and Prickwillow as part of a wider commuter route both into and out of Ely. There was a concern that Queen Adelaide could be isolated from Ely which could result in house prices decreasing and businesses would find it harder to operate.

### **Summary of recommendation from the Consultant's report**

- 2.10 The Consultant's report concludes that it is not possible to introduce full barrier level crossings in Queen Adelaide, as would be required by Network Rail, without reducing the volume of traffic in some way. This is due to both the interface between the crossings and impact on traffic in the area.
- 2.11 The report recommends that more work is done on the initial options identified if there is a requirement to mitigate any impact from Network Rail's strategic scheme at the Ely North Junction. From the preferred options identified, two will involve major investment to deliver. The options are:
- Option 2 - Allow local traffic through the Peterborough and Kings Lynn level crossings
  - Option 7 - Implementing a bridge over the Peterborough line
  - Option 8 - Constructing a bypass north of Queen Adelaide

- 2.12 Option 2 is considered to be impractical to implement for a number of reasons:
- Enforcement would be difficult and involve bespoke agreements with the police
  - Deciding what was classed as 'local traffic' would be difficult and open to challenge to people who were not classed as local
  - There would be a large amount of administration for delivery vehicles and visitors to the area and it is unlikely that residents will want to register visitors or deliveries in advance
  - Local businesses would see a reduction in passing trade
  - Due to administration and uncertainty surrounding the restriction local business may become less attractive
  - Local residents may feel cut off with their area becoming a no through road
  - Some residents may feel visitors would be less inclined to visit
  - Ongoing maintenance of the ANPR cameras would have a revenue cost
  - This option does not provide any solution for "non-local" trips
- 2.13 It is clear that any proposals in this area need to be brought forward to address both the road and rail requirements and impacts, and that the regional and national benefits should not be achieved by imposing unreasonable costs on local people. It is therefore important that the costs and benefits to road and rail users are considered together
- 2.14 Early discussions with the Combined Authority have indicated that they may consider undertaking work to further develop and establish a case for any road investment required to mitigate the local impacts of unlocking the strategic benefits to the rail network. Funding this work may be considered at a Combined Authority Board meeting in March.
- 2.15 For the reasons outlined above it is therefore recommended that the County Council welcomes this work being taken forward by the Combined Authority, which could take place in parallel with any development work for Network Rail's proposal, with the intention of establishing a case for investment. Given the high costs indicated by this study a full and broad assessment of the benefits of investment should be undertaken.
- 2.16 This work would involve more detailed investigation including further traffic surveys, more detailed costings, and assessing the benefits of the options. It is proposed that the Combined Authority Study, working closely with the County Council, investigates Options 7 and 8 in the broadest sense and develops a more detailed range of options. This should be based on the principle that if the rail proposals are to be implemented and the level crossings need replacing, at this stage indications are that significant investment in either a bridge over the Peterborough line or a northern bypass for Queen Adelaide will be required.

### **3. ALIGNMENT WITH CORPORATE PRIORITIES**

#### **3.1 Developing the local economy for the benefit of all**

Achieving the right solution in this area is vital for local residents and businesses. However, as this report is not selecting a particular option there are no significant implications at this stage.

### **3.2 Helping people live healthy and independent lives**

There are no significant implications for this priority. As this report is not selecting a particular option there are no significant implications at this stage.

### **3.3 Supporting and protecting vulnerable people**

There are no significant implications for this priority. As this report is not selecting a particular option there are no significant implications at this stage.

## **4. SIGNIFICANT IMPLICATIONS**

### **4.1 Resource Implications**

There are no significant implications within this category as the proposal is for the Combined Authority to take on the future work.

### **4.2 Procurement/Contractual/Council Contract Procedure Rules Implications**

There are no significant implications within this category.

### **4.3 Statutory, Legal and Risk Implications**

There are no significant implications within this category.

### **4.4 Equality and Diversity Implications**

There are no significant implications within this category.

### **4.5 Engagement and Communications Implications**

There are no significant implications within this category.

### **4.6 Localism and Local Member Involvement**

There are no significant implications within this category. Local Members were invited to attend the engagement event held in September 2017. Officers have had, and will continue to have, meetings with Local Members.

### **4.7 Public Health Implications**

There are no significant implications within this category.

<b>Implications</b>	<b>Officer Clearance</b>
<b>Have the resource implications been cleared by Finance?</b>	Yes Name of Financial Officer: Sarah Heywood

<b>Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the LGSS Head of Procurement?</b>	Yes Name of Officer: Paul White
<b>Has the impact on statutory, legal and risk implications been cleared by LGSS Law?</b>	Yes Name of Legal Officer: Debbie Carter-Hughes – Note Appendix 1 not reviewed.
<b>Have the equality and diversity implications been cleared by your Service Contact?</b>	Yes Name of Officer: Tamar Oviatt-Ham

<b>Have any engagement and communication implications been cleared by Communications?</b>	Yes Name of Officer: Sarah Silk
<b>Have any localism and Local Member involvement issues been cleared by your Service Contact?</b>	Yes Name of Officer: Tamar Oviatt-Ham
<b>Have any Public Health implications been cleared by Public Health</b>	Yes Name of Officer: Tess Campbell

Please include the table at the end of your report so that the Chief Executive/Executive Directors/Directors clearing the reports and the public are aware that you have cleared each implication with the relevant Team.

<b>Source Documents</b>	<b>Location</b>
2020 Consultancy Queen Adelaide Level Crossing Traffic Study.	Appendix 1 (separate attachment included with this report)
Appendices for 2020 Consultancy Queen Adelaide Level Crossing Traffic Study: Appendix A- ATC Data Appendix B- Queue Length Tables Appendix C- Traffic Modelling Outputs	Appendices are available on request by emailing: <a href="mailto:Transport.Plan@Cambridgeshire.gov.uk">Transport.Plan@Cambridgeshire.gov.uk</a> Or available to view in Shire Hall Room 301 (on an appointment basis – officer contact details on page 1).