

A14 Cambridge to Huntingdon  
improvement scheme

# Transport Review of the Swavesey Interchange

1 July 2015

Karl von Weber

BEng(Hons) CMILT

For and on behalf of  
**Coalition of local Parish Councils**

**Project Ref: 2015-240**

**LvW Highways Ltd**  
**Highway, Traffic & Transport Consultants**  
Blaenparc  
Felingwm Uchaf  
Carmarthen  
SA32 7PR

Tel: 01267 290769  
E-mail: [Karl.vonWeber@lvwhighways.com](mailto:Karl.vonWeber@lvwhighways.com)

## **CONTENTS**

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2</b>	<b>REVIEW OF INFORMATION ON CD .....</b>	<b>1</b>
<b>3</b>	<b>TRAFFIC LEVELS .....</b>	<b>2</b>
<b>4</b>	<b>CAMBRIDGE SERVICES.....</b>	<b>6</b>
<b>5</b>	<b>SWAVESEY INTERCHANGE DESIGN.....</b>	<b>6</b>
<b>6</b>	<b>TRAFFIC CALMING.....</b>	<b>8</b>
<b>7</b>	<b>SUMMARY AND CONCLUSION.....</b>	<b>8</b>

## **1 INTRODUCTION**

1.1 LwW Highways Ltd are instructed to undertake a review of the A14 Cambridge to Huntingdon improvement scheme with specific reference to the proposed interchange at Swavesey.

1.2 The Terms of Reference were considered and provided via email and are reproduced below.

1. *Familiarise yourself on the materials sent to you on the DVD.*

2. *Estimate the increase in the volume of traffic that would pass through Boxworth, Elsworth and Knapwell if the interchange at Swavesey is not changed (using the traffic figures on the DVD). Consider and recommend any possible mitigating measures that could be introduced.*

3. *Harvey Binnie will pursue the legality of the service station's requirement for access from both directions but it is likely, even if we could get this requirement removed, that it would still be necessary to cater for the 30,000 vehicles that join and leave the A14 each day. To provide for this with the interchange in its present form it would inevitably still provide access to the Boxworth road. Do you have any thoughts on this?*

4. *As we discussed, in any case, the design of this interchange in its present form is very inefficient and is hardly adequate for such a large volume of traffic. Your comments on this would be very useful together with any improvements/changes you would suggest.*

1.3 This report provides the information requested from the Terms of Reference.

## **2 REVIEW OF INFORMATION ON CD**

2.1 A CD was received from the Highways Agency containing the documentation associated with the application under *Section 37 of the Planning Act 2008* for an order to grant development consent for the A14 Cambridge to Huntingdon improvement scheme (the scheme).

2.2 The section of the scheme that is most relevant to this review comprises:

- a new local access road following the route of the A14 over a distance of approximately 8 km (5 miles), including construction of a dual carriageway link between the existing A14 near Fen Drayton and Swavesey junction and a single carriageway between Swavesey and Girton. The road would provide a route for local traffic between Cambridge and Huntingdon as well as providing access to properties and businesses along the corridor.
- In addition, it includes the de-trunking (i.e. returning to local road status) of the existing A14 Trunk Road between Brampton Hut and Swavesey.

2.3 Volume 2 on the CD provides the copies of plans of the full scheme.

- The General Arrangement Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-E2-DR-01015 and drawing A14-ARP-ZZ-E2-DR-01016.
- The Land Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00118 and drawing A14-ARP-ZZ-00-DR-Z-00120.

- The Work Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00217 and drawing A14-ARP-ZZ-00-DR-Z-00219.
- The Rights of Way and Access Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00317 and drawing A14-ARP-ZZ-00-DR-Z-00318.
- The Crown Land Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00622 and drawing A14-ARP-ZZ-00-DR-Z-00623.
- The Traffic Regulation Measures Plans of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00817 and drawing A14-ARP-ZZ-00-DR-Z-00818.
- The Classification of Roads Plan of the Swavesey Junction are shown on drawing A14-ARP-ZZ-00-DR-Z-00901.

2.4 Volume 7 on the CD provides the copies of the Transport Assessment.

2.5 Following submission of a draft report substantially more data has been issued on the A14 scheme based on Deadline 2 (15 June) of the Examination Process.

### **3 TRAFFIC LEVELS**

3.1 Traffic counts undertaken in 2014 by the Highways Agency, assessing annual average daily traffic, identified that around 71,000 vehicles currently use the A14 between Swavesey and Bar Hill every day. This is forecast to rise to 86,000 vehicles per day by 2020, which is significantly above the design standard of 66,000 vehicles a day used when the road was built, as set out within the Department of Transport document *Highway Link Design TA43/84*.

3.2 Between 17% and 26% of traffic on the A14 is comprised of heavy goods vehicles (HGVs), which is significantly higher than the national average of 13%.

3.3 The Transport Assessment, in paragraph 3.4.15, mentions that traffic count data was collected in February 2014. The Design Manual for Roads and Bridges, and the TAG Unit M1.2, Data Sources and Surveys; mentions that surveys should be undertaken during the months of April, May, June, September and October (the so-called "neutral" months) avoiding main and local holiday periods, local school holidays and terms, and other normal traffic periods. It would obviously have been preferable to have undertaken the surveys in April or May when flows are generally higher than observed in the winter months.

3.4 Reference to the following documents has been made to try and determine the validity of the traffic model in relation to the local roads that exist to the south of the A14 between Huntingdon and Cambridge:

- 1 A14 Local Model Validation Report Sept 2013;
- 2 A14 Transport Assessment Report Dec 2014;
- 3 A14 Transport Traffic Modelling Update Report 15 June 2015; and
- 4 A14 Response to the First Written Questions (Report 12: Transportation and Traffic) 15 June 2015

3.5 These documents indicate that there has been considerable concern from all parties about the 'fitness for purpose' of the Transport Model in relation to the effect on local roads adjacent to the A14 corridor. The traffic model has been developed from numerous existing models created over the past 15 years and by reference to bullet 1 of para 3.4 the level of detailed survey information on roads

through Elsworth, Boxworth and Knapwell was very limited. At least four models have been used as follows:

- Cambridge Sub-Regional Model (CSRM)
- Cambridge to Huntingdon A14 Road Model (CHARM(1))
- Cambridge to Huntingdon A14 Road Model (CHARM(2))
- Cambridge to Huntingdon A14 Road Model (CHARM(3a))

3.6 From the Transport Assessment Report and answers provided to the Examining Authority (issued on 15 June) it is evident that it has been extremely difficult to achieve validation of the model based on WebTAG unit M3.1. This is a government guidance document which states how accurate a model needs to be in comparison with individual traffic counts undertaken on roads across the study area. A number of extracts from the Examining Authority answers to questions are particularly relevant.

Q1.12.23 – *“the screenline performance did not meet the WebTAG acceptability guidelines in all time periods, with the Interpeak and the PM peak failing to achieve 50% of screenlines meeting the criteria.”*

Q1.12.24 – *“Link flow validation across the CHARM1 model area was also quite poor, although was improved in the Interpeak and PM peak over the CSRM 2011 [model]”*

Q1.12.25 – *“The Cambridge to Huntingdon A14 Road Model version 2 CHARM2 does not meet all of the acceptability guidelines for model calibration and validation set out in WebTAG unit M3.1. However, it does meet the criteria in most cases and tends to be well validated where the impacts of the proposed A14 scheme are likely to be felt.”*

3.7 The latest iteration of the model is detailed in the recent Traffic Modelling Update Report but this does not provide sufficient detailed information to determine whether the model is any more accurate in relation to the local road network. A comment issued by Cambridgeshire County Council on 23 June indicates that they are also concerned:

*“The County Council is broadly content with the modelling work undertaken by Highways England, and that the traffic modelling approach in general is sound and appropriate. **However, Highways England has, in the opinion of the County Council, given insufficient consideration in the traffic modelling to the assessment of impacts on local roads [my emphasis].....**Due to the variable nature of the base model validation in areas away from the A14, the performance of the base year model, the forecast changes through time to give the do-minimum/without A14 future year projections, and the forecasted impacts as a result of the scheme were assessed area by area for each of the key population centres or locally sensitive areas. The areas covered by these assessments [included amongst others] Area 5: Elsworth, Boxworth, Knapwell... The most significant increases in flow between the base year and Do Minimum occur as a result of extra trips generated by the developments to the south of the A428 and strategic traffic seeking to avoid congestion along the A14 by routing through this area to access the A428. This is due to significant delay at the Caxton Gibbet roundabout on the A428, which prompts traffic to avoid this junction and travel along more minor routes to access the A428.*

*The introduction of the A14 scheme has a positive impact on flows compared to the Do Minimum as it provides an alternative route for trips which are shown to*

*be avoiding the A14 in the Do Minimum. This results in an overall net reduction in flow through Elsworth between the Do Minimum and Do Something scenario. However, despite the less than adequate validation of the base year model in this area the modelling indicates that the proposed scheme does not have a significant impact on the local road network, with the exception of traffic flows through Elsworth, which are shown to decline. However, the quantum of the flow change is uncertain due to weak validation, and this needs further work to improve levels of confidence.”*

- 3.8 A review of the Transport Assessment has revealed the following:
- 3.9 Figure 3.4: Traffic Count Data Location Plan contained within the Transport Assessment, shows that an automatic traffic counter was located in Knapwell and that junction turning counts were undertaken at the Swavesey/Boxworth Interchange. Therefore, there is limited up to date information concerning traffic flows through Ellsworth and Boxworth and the other villages located between the A428 and the A14.
- 3.10 Significant growth in traffic is forecast along the route of the existing A14 at Swavesey (Junction 28) and Bar Hill (Junction 29). At Swavesey the Transport Assessment estimates that in 2035, 13,000 vehicles will be using the junction without the scheme however, with the scheme 45,800 vehicles will be using the junction. From analysis of the various sources of data it is evident that the existing use of the junction in 2035 without the scheme would be substantially greater than 13000 and based on the limited data available is probably between 25000 and 30000. There will still however be a significant increase in traffic through the junction resulting from the parallel construction of the old A14 with connections to Huntingdon and villages to the north of the A14 such as St Ives. Part of the increase appears to be related to the Northstowe development where Phase 2 has only been considered in 2035 in the ‘with scheme’ scenario and not in the ‘without scheme’ case.
- 3.11 This predicted increase in traffic movements has required the junction to be substantially remodelled as part of the scheme although we would suggest that a much simpler and understandable design could be achieved by use of two bridges rather than one.
- 3.12 The predicted impacts on local roads between Huntingdon and Cambridge is taken from table 7.4, table 7.5 and table 7.6 of the Transport Assessment. It is considered that while some of the increase in traffic volume can be ascribed to economic development the impacts of congestion on the existing A14 is one of the main influencing factors that will divert traffic onto local roads.
- 3.13 The impact on towns and villages to the North and South of the A14 is mixed. Some settlements are forecast to experience an increase in traffic as local traffic would divert through them to obtain access to the A14, rather than using other routes such as the A1198 and A428. Conversely, other areas would benefit from this diversion of local traffic and see a reduction in traffic.
- 3.14 The information indicates that villages including Over, Earith, Connington, Knapwell and Boxworth would benefit from a reduction in daily traffic flows as a result of the scheme whereas Elsworth Road through Conington would be subject to an increase in flow. Although not shown in any of the tables, Cambridgeshire CC in the extract shown in para 3.7 indicate that flows through Elsworth are predicted to fall.
- 3.15 To obtain a more detailed view of predicted traffic flows at the Swavesey Interchange we have plotted the junction turning movements contained in

## A14 Cambridge to Huntingdon improvement scheme Transport Review of the Swavesey Interchange

Appendix D and E of the Transport Assessment on a combined network diagram to show the full interactions of the junctions.

- 3.16 Although a slight error has been detected in the flows between the Swavesey (South) Roundabout and the Swavesey Services Roundabout we consider that the operational capacity assessments confirm that the four proposed roundabouts will operate satisfactorily in both the am and pm peak periods.
- 3.17 In relation to the flows to the south from the junction there have been numerous changing predictions in the various reports listed in para 3.5. For the three villages of Elsworth, Boxworth and Knapwell data has been provided as shown in the following table which has been extracted from the answers to the Examining Authority.
- 3.18 The first table shows the predicted impact based on the CHARM2 model with flows increased by more than 10% as a result of the scheme highlighted in red, roads where flows decrease by more than 10% are highlighted in green, while roads where flows change by less than 10% are highlighted in blue.

Forecast 2-way AADT flows (i.e., over 24 hours)	CHARM2 Traffic Model						
	Without Scheme			With Scheme		Percent Change	
	2014	2020	2035	2020	2035	2020	2035
<b>Local Roads between Huntingdon and Cambridge</b>							
<b>A1198 West of Hilton</b>	-	?	?	?	?	?	?
<b>Elsworth Road through Conington</b>	900	1200	3500	1400	3100	17%	-11%
<b>High Street Knapwell</b>	1100	1600	4700	1400	3200	-13%	-32%
<b>High Street Boxworth</b>	2300	2600	3300	2300	3100	-12%	-6%

- 3.19 This suggests that by 2035 flows would reduce through the villages with the scheme. In 2020 the flow through Conington are predicted to increase by 17%.
- 3.20 With the revised CHARM 3a model the 2035 situation suggests a smaller reduction in flows through Knapwell and Boxworth and an increase through Conington. The latest predictions also show that the A1198 to the west will increase by 6% at 2035.

Forecast 2-way AADT flows (i.e., over 24 hours)	Latest CHARM3a Traffic Model						
	Without Scheme			With Scheme		Percent Change	
	2014	2020	2035	2020	2035	2020	2035
<b>Local Roads between Huntingdon and Cambridge</b>							
<b>A1198 West of Hilton</b>	-	11500	14200	12400	15100	8%	6%
<b>Elsworth Road through Conington</b>	800	1300	2500	1400	2700	8%	8%
<b>High Street Knapwell</b>	1000	1800	3800	1400	3200	-22%	-16%
<b>High Street Boxworth</b>	2300	2700	3400	2500	3300	-7%	-3%

- 3.21 From the explanation provided to question Q1.12.33 it is clear that it is very difficult to provide a confident answer as to whether the villages will in reality suffer from an increase in traffic or benefit from a decrease. From residents of

the villages who witness the volume of peak hour traffic travelling along the country lanes at present there is obvious concern that the predictions for 2035 may be far removed from the situation that actually occurs. With the new junction at Swavesey there is a real prospect that any future rat running traffic will be attracted through the villages to connect with this junction. The predicted increase in flow on the A1198 and the resulting congestion at the Caxton Gibbet roundabout on the A428 may also increase the traffic flow through Elsworth and along Brockley Road to the south of the village.

- 3.22 As the traffic modelling of the local highway network does not appear to have improved through the various iterations of the study it is suggested that a reserve amount of funding is set aside by Highways England in the form of a bond similar to a Section 106 Agreement. This could then be drawn on in the future if the predictions turn out to be incorrect and allow measures such as traffic calming and signing to be implemented to mitigate the adverse effects of additional traffic. This bond would apply to all local roads not just for the villages of Elsworth, Boxworth and Knapwell.
- 3.23 A more acceptable solution would be to design traffic calming measures now and implement them as part of the scheme. This would deter existing rat running traffic and ensure that the improved capacity of the A14 scheme and parallel 'old A14' is used by both long distance and local traffic. The lanes through the villages would then be used by residents of those villages rather than by peak hour through traffic attempting to find the most direct route.

## **4 CAMBRIDGE SERVICES**

- 4.1 We have undertaken a review of the documentation contained on the CD and cannot find any reference as to why the service area has to be connected to the wider highway network in all directions.
- 4.2 It is assumed that as the services are already connected to the A14 in both directions, there would be a claim for financial compensation for the loss of trade if this were to change. This would also apply to the other businesses in the area. Recent publications on the 15 June indicate that David Tucker Associates have been retained by the service area operator and their report confirms that the service area wishes to be connected to all roads adjacent to the site by the simplest arrangement possible. They are concerned that the design is too complex and feel that drivers may avoid use of the site if the design is not changed.

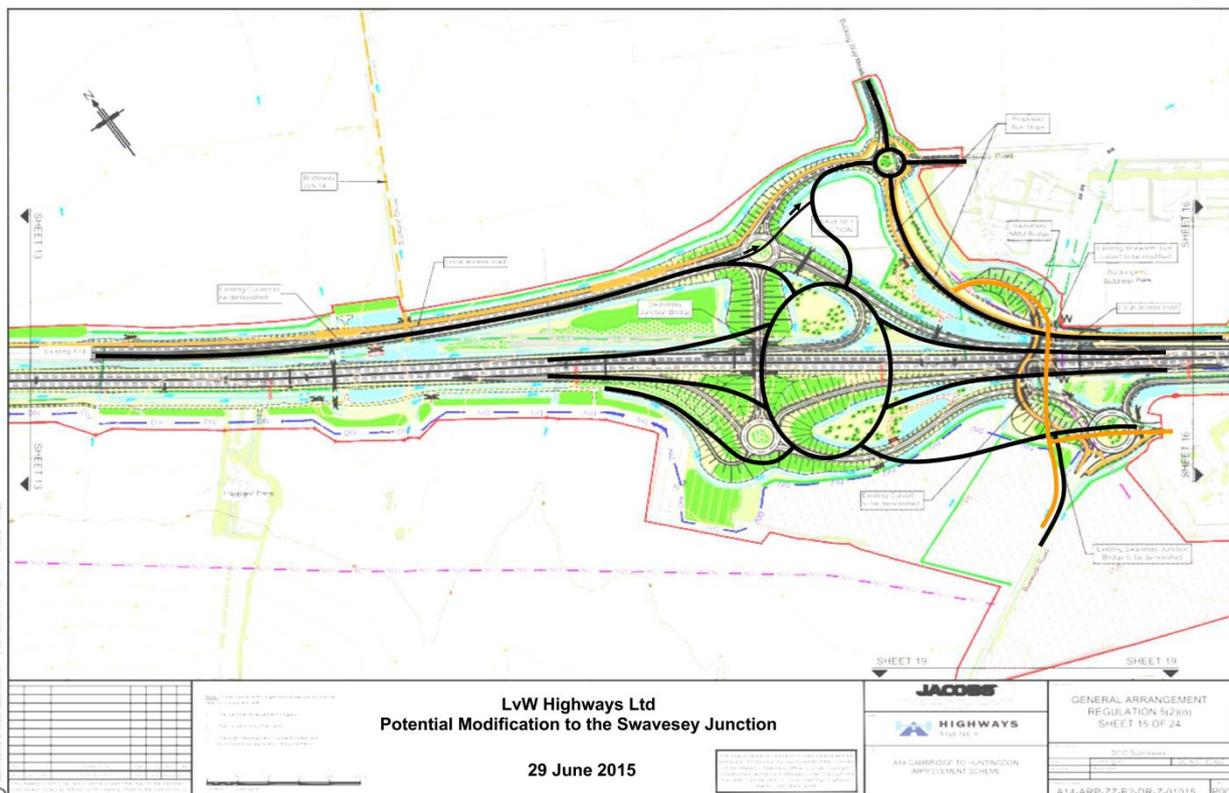
## **5 SWAVESEY INTERCHANGE DESIGN**

- 5.1 We have undertaken a review of the design and can understand how the proposed design was developed based on the predicted flows and geometric requirements set out in the Design Manual for Roads and Bridges. It is felt however that the design is overcomplicated and would benefit from a re-design based on a more conventional two bridge layout.
- 5.2 It has been suggested by residents that a main aim of the A14 improvement was to separate local traffic from through traffic on the trunk road. On this basis they do not understand why two major junctions at Swavesey and Bar Hill are so close together and both cater for all traffic movements. The main reasons appear to be the related land uses adjacent to each junction; at Swavesey the requirements are obviously influenced by the needs of the service area which

## A14 Cambridge to Huntingdon improvement scheme Transport Review of the Swavesey Interchange

requires links to all surrounding roads and at Bar Hill the junction will serve expanding development at Northstowe.

- 5.3 If the Swavesey junction was just connected to the new parallel 'old A14' local road there would be a need for a second junction for the service area which would have to have connections to both directions of traffic on the new A14. Removal of a full junction at Swavesey could also have required an additional junction to the north of Hilton on the B1040 to cater for traffic from St Ives. We therefore do not consider that the Swavesey junction could just cater for local traffic but think that a much more understandable layout could be created within the same land area.
- 5.4 From the data provided in the Transport Assessment it is estimated that maximum peak hour flows in 2035 could be in the region of 4300 vehicles in the am peak hour and 4700 vehicles in the pm peak hour. These flows will have been modified by the latest CHARM3a modelling and due to the lower growth figures should have been slightly reduced. For this level of flow it is considered that a layout as indicated below would be much easier to understand by all road users. The design has not been tested for capacity but with this level of flow should work as a conventional roundabout. If capacity issues did occur then certain arms of the junction such as the off-slip roads from the A14 could be signalised.



- 5.5 The design should be more acceptable to the service area with a direct access off the roundabout and allows a reduction in the standard of connection to the Boxworth Road to a T junction. With suitable restrictive traffic calming to the Boxworth Road formed from sections of one-way working close to the new T junction it is likely that southbound through trips would be deterred from using the route through the villages.

## **6 TRAFFIC CALMING**

- 6.1 As mentioned above and in para 3.23 it is considered essential that rat running traffic, travelling to and from junctions on the new A14 via local roads between Huntingdon and Cambridge, should be deterred by suitable traffic calming. This needs to be in the form of measures that will substantially slow vehicle speeds to such an extent that it becomes more sensible to stay on the main road network such as the A1198 rather than travelling through either Knapwell, Elsworth or Boxworth.
- 6.2 Additional work needs to be undertaken by Highway England looking at the comparison of vehicle journey times through the local roads as compared with travelling by routes such as the A1198. This need to be carried out for both the present situation and for the predicted case in 2035 when flows will be substantially greater than at present. If journey times in the peak periods are found to be faster by the local roads then traffic will undoubtedly rat run in the future in the same way that they do at present. With the varying traffic predictions on the local roads shown in paras 3.18 and 3.20 there can be no confidence that the concerns of the village residents will not occur. This could result in significant additional rat running traffic as a consequence of the scheme.

## **7 SUMMARY AND CONCLUSION**

- 7.1 This report is commissioned to consider the impact that the proposed A14 Cambridge to Huntingdon improvement scheme would have on the villages of Elsworth, Boxworth and Knapwell based on the information obtained from Highways England.
- 7.2 The information was the documentation submitted as part of the Development Consent Order (DCO) application included on a DVD and later information issued on 15 and 23 June on the National Infrastructure Planning web site.
- 7.3 The traffic figures extracted from the CHARM(2) model summarised in the Transport Assessment predict that there will be a reduction in traffic movements through Boxworth and Knapwell with the A14 scheme compared with the traffic movements without the scheme.
- 7.4 The traffic model predicts that without the scheme, as the A14 corridor becomes more congested, more vehicles will use local roads through the surrounding villages in an attempt to avoid the congestion.
- 7.5 By improving the A14 corridor, the traffic predictions suggest that vehicles will remain on the trunk road and connect to the A428 via the A1198 rather than travelling through the villages. As the table in para 3.20 indicates an increase in flow on the A1198 there can be no confidence that the delays at the A428 roundabout will disappear. If traffic calming measures are not implemented to substantially slow vehicle speeds through the villages of Knapwell, Elsworth and Boxworth it is inevitable that trips from the new Cambourne development (and areas to the south of Cambourne) will access the A14 at the new Swavesey junction.
- 7.6 Currently the Cambridge Services have access to all movements on the A14 and the local highway connects Boxworth with Swavesey. The design of the new Swavesey junction has been informed by the predicted traffic movements, constrained by land ownership and the requirements of the highway design guide. The junction design keeps all the existing movements currently available

but has resulted in a complex design which now has two off-slip roads for westbound traffic on the A14. The service area consultants have mentioned the complex design and it was their comments that have resulted in the addition of an extra westbound off-slip directly connected to the service area roundabout.

- 7.7 In order to simplify the design a layout is shown in para 5.4 based on a conventional grade separated roundabout. The junction would then be formed from two roundabouts rather than four and would provide a direct connection into the service area from the main A14 roundabout. A reduced standard T junction could then be provided as a connection to Boxworth Road.
- 7.8 In conclusion, we consider that the concerns of the village residents are well founded. We do not agree that the Swavesey junction could just be connected to the local roads but are concerned that the existing rat running traffic problems could exist in the future due to traffic gaining access to the A14 at Swavesey. The numerous traffic predictions are quite variable on the local roads and suggest that journey times by the preferred A1198 route could be very similar to, or greater than, via the local roads in both 2020 and 2035.
- 7.9 It is recommended that Highways England should commission additional journey time studies comparing the various rat running and preferred main roads routes to and from the proposed A14 junctions. If the journey times prove to be close in the base and future situations then rat running traffic will still occur. Methods must then be found by suitable traffic calming measures to slow journey times via the local roads. Ideally, these measures should be implemented as part of the scheme or alternatively a financial bond could be set aside which would be drawn on by the County Council to allow traffic calming to be targeted to specific problems areas.



# **A14 Cambridge to Huntingdon improvement scheme**

## **Statement of Common Ground between**

## **Highways England and Bourn Parish Council (on behalf of a Coalition of 16 Parish Councils)**

**Date: 10 September 2015**

**Reference: HE/A14/EX/98/PC15**

**Version: Examination deadline 9**

**Contents**

- 1 Introduction** **1**
- 1.1 Purpose of document 1
- 1.2 This Statement of Common Ground 1
- 1.3 Structure of the Statement of Common Ground 2
- 2 Record of engagement undertaken** **3**
- 3 Matters discussed** **5**
- 3.1 SoCG discussion 5
- 4 Agreement on this SoCG** **14**
- 5 Appendix A – Relevant representation** **15**

# 1 Introduction

## 1.1 Purpose of document

- 1.1.1 A Statement of Common Ground (SoCG) is a written statement prepared jointly by the applicant for a Development Consent Order (DCO) and another party. It sets out matters of agreement between both parties, as well as matters where there is not an agreement and matters which are under discussion.
- 1.1.2 The aim of SoCGs is to provide a clear record of the issues discussed and the stage each issue is at during the discussion. The SoCG can be used as evidence of these discussions in representations to the Planning Inspectorate as part of their examination of the DCO application.

## 1.2 This Statement of Common Ground

- 1.2.1 Annex G of the Rule 6 letter (17 April 2015) refers to SoCGs and recommends that Highways England agrees SoCGs with various parties, including parish councils.
- 1.2.2 This SoCG has been jointly prepared by Highways England, as the Applicant, and Bourn Parish Council (on behalf of the Coalition of Parish Councils, comprising 16 parish councils concerned about the transport and other impacts of unsustainable housing developments in the A428 corridor - 'Bourn Coalition'. It refers to the application for the proposed A14 Cambridge to Huntingdon improvement scheme which was submitted to the Planning Inspectorate on 31 December 2014.
- 1.2.3 The proposed scheme extends for a distance of 21 miles, from the existing A14 at Ellington to the Cambridge Northern Bypass at Milton. It includes a new bypass to the south of Huntingdon, carriageway widening on the existing A14 between Swavesey and Girton, and improvements to the Cambridge Northern Bypass. It also includes junction improvements, the widening of a section of the A1 trunk road between Brampton and Alconbury, and approximately 7 miles of new local access roads. In addition, it includes the de-trunking (i.e. returning to local road status) of the existing A14 trunk road between the Ellington and Swavesey junctions, and the removal of the existing road viaduct over the East Coast Mainline railway at Huntingdon.

## **1.3 Structure of the Statement of Common Ground**

1.3.1 This SoCG is structured in the following way:

- |                   |  |
|-------------------|--|
| <b>Section 1</b>  | Introduction to this SoCG  |
| <b>Section 2</b>  | Record of engagement undertaken pre and post-submission of the DCO application. This includes meetings, emails and letters related to the discussions, including a summary of each.  |
| <b>Section 3</b>  | Table recording matters that have been discussed between Highways England and Bourn Coalition, in line with the principal issues set out in Annex C of the Rule 6 letter, including comments from Bourn Coalition on whether the matters are agreed, not agreed or still under discussion. |
| <b>Section 4</b>  | Signatures of the parties to indicate a true and accurate record of the discussions.   |
| <b>Appendix A</b> | Copy of the relevant representation made to the Planning Inspectorate.   |

## 2 Record of engagement undertaken

- 2.1.1 The Coalition of Parish Councils currently comprises 16 parish councils: Arrington, Bourn, Boxworth, Caldecote, Cambourne, Caxton, Conington, Croxton, Elsworth, Eltisley, Eversdens, Hardwick, Knapwell, Longstowe, Madingley and Toft working on behalf of local communities in respect of the impact of plans for the A14 scheme.
- 2.1.2 The table below records the engagement undertaken between Highways England and Bourn Coalition.

Date	Type of engagement	Summary of discussion
Ongoing	There has been engagement with many of the coalition parish councils individually as part of the statutory and non-statutory consultation and ongoing engagement.	The 16 parish councils are: Arrington, Bourn, Boxworth, Caldecote, Cambourne, Caxton, Conington, Croxton, Elsworth, Eltisley, Eversdens, Hardwick, Knapwell, Longstowe, Madingley and Toft.
27 February 2015	Pre-examination relevant representation submitted to the Planning Inspectorate in regard to the scheme.	Please see appendix A for a copy of the representation made by Bourn Coalition.
4 June 2015	Statement of Common Ground (SoCG) meeting	The aim of the meeting was to discuss preparation of this Statement of Common Ground. The meeting was attended by representatives of Highways England and representatives from Bourn Parish Council, Elsworth Parish Council, Knapwell Parish Council and Conington Parish Council.
<b>5 August 2015</b>	<b>Statement of Common Ground (SoCG) on-going correspondence</b>	<b>The Coalition of Parish Councils were unhappy with the way its views were represented in the SoCG Draft 1. They have up-dated this version of the draft with their written comments.</b>

- 2.1.3 It is agreed that this is an accurate record of the meetings and key correspondence between Highways England and Bourn Coalition
- 2.1.4 There is ongoing discussion between the parties.

- 2.1.5 The Coalition of Parish Councils currently comprises 16 parish councils: Arrington, Bourn, Boxworth, Caldecote, Cambourne, Caxton, Conington, Croxton, Elsworth, Eltisley, Eversdens, Hardwick, Knapwell, Longstowe, Madingley and Toft.
- 2.1.6 The Bourn Coalition relevant representation formed the basis for the discussion at the SoCG meeting. A copy of the relevant representation can be found at Appendix A.
- 2.1.7 It is agreed that any matters not specifically referred to in sections 2 and 3 of this SoCG are not of material interest or relevance to Bourn Coalition, and therefore have not been the subject of any discussions between the parties. As such, those matters can be read as agreed, only to the extent that they are either not of material interest or relevance to Bourn Coalition.

## 3 Matters discussed

### 3.1 SoCG discussion

3.1.1 The table below sets out the matters discussed between Highways England and Bourn Coalition at the meetings held on 4 June 2015. It outlines Highways England’s responses to stakeholder issues raised and whether the stakeholder agrees with this Highways England response. The matters are addressed in line with principal issues identified in Annex C of the Rule 6 letter.

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
1	<b>Traffic and Transportation</b> Agreement in principle	There is agreement in principle that there is an urgent need for the A14 to be improved.	Noted.	Agreed.
2	<b>Transportation and Traffic</b> Existing traffic flow surveys are out of date	There is a need for up to date and accurate traffic forecasts.	<b>The Traffic Modelling Update Report was submitted on 15 June 2015. Local traffic impacts were reported at Deadline 6 (reference HE/A14/EX/73). The purpose of the report was to present the findings of sensitivity testing undertaken in response to concerns raised by Cambridgeshire County Council and Cambridge City Council.</b>  <b>The Response to ExA’s Second Written Questions on the Highways England Traffic Modelling Update Report was submitted at Deadline 7 (reference HE/A14/EX/92).</b>  These reports provide further information on the traffic flows and impacts.	Under discussion.
3	<b>Economic and Social Effects</b> Alternative option to the A14 improvement scheme	A strategic solution to the scheme would be a freight rail link from Felixstowe to Birmingham This would be an alternative solution to the HGV/ freight issues on the A14.	The A14 scheme is already part of a multi-modal solution including alternative transport modes such as rail freight links. In 2011 the Department for Transport commissioned <i>the A14 Study</i> to look at multi-modal transport solutions in response congestion in the trunk road corridor between Huntingdon. It identified a range of interventions, which comprised a public transport	Not agreed.

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
			<p>package, a rail-freight package and a road package. It concluded that packages in isolation would not solve the problems but that all packages were needed. The freight package aimed to reduce HGV traffic on the A14 by encouraging a transfer of freight movements from road to rail. This centred on traffic moving between the Haven Ports and the Midlands.</p> <p>It also concentrated on measures for improving the Felixstowe to Nuneaton route to achieve shorter journey times and to enable longer trains and additional freight paths to be introduced. The rail freight package was forecast to reduce HGV traffic on the A14 in the core study area by up to 11 per cent, which would offset 60 to 80 per cent of the forecast growth in HGV traffic on the A14 between 2011 and 2031. Rail freight proposals within the <i>A14 Study</i> have either been completed or are programmed to be carried out within the current control period which runs until March 2019.</p>	
4	<p><b>Economic and Social Effects</b></p> <p>Implications of de-trunking of the A14 and capital resources dedicated to its upkeep</p>	<p>It is our understanding that Highways England will transfer money to Cambridgeshire Country Council - is it an unspecified lump sum or is it compensation for the extra expense of maintaining the A14, depending on its condition and lifespan when it is transferred. Clarification is required on this point.</p> <p>It is recognised that this is a political decision. The ability to influence this needs to be communicated.</p>	<p>Cambridgeshire County Council would receive a settlement from central government which is based on a number of factors including an element related to the length of highway under the County Council's control. In this way the budget for additional maintenance for the de-trunked roads is covered.</p> <p>The Department for Transport provided £4.5 million to Cambridgeshire County Council in 2003/04 for traffic calming measures to be implemented in local villages to mitigate against A14 avoidance.</p> <p><b>Regarding upkeep of local roads, this is a matter for the</b></p>	Agreed.

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
		There is a question that remains of what level, if any County Council funds have been set aside for upkeep of local roads and if this is a ground for objection to the Inspector.	<b>local highways authority. We are in discussion with the highways authority for appropriate locations for monitoring.</b>	
5	<b>Design and Engineering</b>  Separation of local and through traffic is advisable	The future operation of the highway network for local communities requires further clarification.	Currently, congestion and uncertain journey times on the A14 lead to some drivers choosing to use alternative routes. The scheme would therefore deliver benefits to the local highway network and communities by reducing journey times and making journeys more reliable on the A14 and therefore reducing rat running on local roads.	<b>Not agreed.</b>
6	<b>Design and Engineering</b>  Girton Interchange remains an anomaly	There is a need for an interchange at Madingley – Girton to facilitate A428 westbound to M11 southbound turns to serve future housing development and to access employment south of Cambridge.  <b>Currently, traffic from the A428 rat-runs through local villages to reach the M11 via the A603. This is necessary because:</b> <ul style="list-style-type: none"> <li>• <b>Traffic cannot turn south from the A428 to the M11; and</b></li> <li>• <b>Madingley Hill, the A1303, is grid-locked in morning rush hours (it takes 40-45 mins to drive 2.4 kms).</b></li> </ul>	<b>Whilst it is not proposed as part of the scheme to provide connections at Girton Interchange between the A428 and the A14 or M11, the scheme does not preclude the provision of works to accommodate these movements. Provision for these additional movements has been considered during the development of the scheme. Question 1.5.10 of the Response to the First Written Questions (Report 5, Design and Engineering Standards) provides an explanation for why these movements are not provided.</b>  <b>Question 1.5.9 of the Response to the First Written Questions (Report 5, Design and Engineering Standards) indicates a possible future solution separate from the scheme which provides for movements between:</b> <ul style="list-style-type: none"> <li>• <b>A428 eastbound and A14 westbound;</b></li> <li>• <b>A428 eastbound and M11 southbound (via the ne]8w local access road); and</b></li> <li>• <b>M11 northbound and A428</b></li> </ul>	<b>Not agreed.</b>

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
			westbound.	
7	<p><b>Design and Engineering</b></p> <p>Arrangements for the A428 around the top of the new junction on the A14 is not supported locally.</p>	<p>The A14 scheme proposes that the existing A428 dual carriageway <b>effectively</b> reduces <b>to</b> single carriageway <b>where it joins</b> the A14. <b>Although it is shown as a 2 lane road, Highways England staff have told us that it will be ‘cross-hatched’, which means it is effectively a single lane.</b></p> <p>This is not an improvement. This is a fundamental flaw in the design and negative impact on traffic movements locally. This is a constant theme and needs to be addressed at a strategic level.</p> <p>Current provision is inadequate and will remain the case. A three way or four way junction also creates adverse environmental impacts. An integrated solution is needed.</p>	<p><b>Further clarification is provided regarding road terminology:</b></p> <ul style="list-style-type: none"> <li>• <b>Dual carriageway means there is one lane at least in each direction separated by a central reserve.</b></li> <li>• <b>A two lane road means a single carriageway road with one lane in each direction with only white lanes between.</b></li> </ul> <p>The proposed lane arrangement at Girton Interchange can be seen on Sheet 21 of the General Arrangement drawings, DCO submission document reference 2.2. <b>At no point is the A428 proposed to be reduced from a dual to single carriageway.</b></p> <p><b>West of Girton Junction, Sheet 21 of the General Arrangement plans shows the A428 as a dual carriageway with two lanes in each direction (as existing). However, the outside lane in the eastbound direction would be hatched out on the Girton junction approach (thus restricting it to one lane in that direction) in order to ease the larger merging flows from the M11 loop and the A14 eastbound slips.</b></p> <p><b>A single lane would be sufficient at that location to cater for the predicted peak hour flow, but the second lane could be brought into operation if in actual operation it was deemed necessary.</b></p> <p>The number of lanes proposed at each location throughout the junction is consistent with the forecast traffic flows, and this varies from one lane up to three lanes dependent on location.</p> <p>Highways England agrees current provision is inadequate</p>	Not agreed.

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
			for future traffic levels and this is why the improvements are proposed.	
8	<p><b>Design and Engineering</b></p> <p>Girton interchange</p>	<p>The consequence of not resolving Girton Interchange will be rat-running through villages.</p> <p><b>Our concerns are as follows:</b></p> <p><b>There is already rat-running through our villages, south of the A428, for the reasons (see row 4 above);</b></p> <p><b>This will become worse as a result of Highways England dualling of the A428 from the A1 to Caxton Gibbett and housing developments which will increase traffic volumes on the A428, some of which will run south to the bio-medical park and other job opportunities south of Cambridge; and</b></p> <p><b>It will also be exacerbated by the effective restriction of the A428 to a single lane at the Girton Interchange.</b></p> <p><b>In our view, Highways England should have planned the upgrading of the A14 and A428 together, as an integrated package. The plan as proposed is unsound from the perspective of local communities.</b></p>	<p>The proposed link roads at Girton interchange have been sized to cater for the predicted traffic flows. It is not envisaged that longer distance strategic traffic would need to leave the trunk road network and route through villages in order to avoid congestion at Girton.</p> <p>The number of lanes proposed at each location throughout the junction is consistent with the forecast traffic flows, and this varies from one lane up to three lanes dependent on location.</p> <p>As set out above, a <b>single lane would be sufficient on the A428 eastbound to cater for the predicted peak hour flow, but the second lane could be brought into operation if in actual operation it was deemed necessary.</b></p>	<p><b>Not agreed.</b></p>
9	<p><b>Design and Engineering</b></p> <p>Swavesey interchange</p>	<p>There are issues with the rationalisation of access onto the A14. Bar Hill and Swavesey junction are too close. These need to be addressed.</p>	<p>Swavesey junction provides connections between several routes including the proposed A14, the local access roads to villages to the north and south of the road, the de-trunked A14, several other local roads as well</p>	<p><b>Not agreed.</b></p>

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
		<p>The intensive use of the Swavesey interchange and the issue of rat-running is a key concern. One option is to limit traffic leaving at the Swavesey interchange and removing the option to turn south to Boxworth. This would replicate the solution they have at Barr Hill where there is no access to the back of the village to prevent rat-running. There is a request for this solution to be implemented at Swavesey.</p> <p>Swavesey interchange will allow vehicles to exit south towards the A428 and rat-run through the villages of Boxworth, Knapwell and Elsworth and impact locally. The local roads are not adequate.</p>	<p>as serving the Cambridge Services area. As a result of consultation a dedicated west bound diverge to the Cambridge Services has been added to provide direct access from the east.</p> <p>The proposed layout limits conflict between principal traffic flows heading between the de-trunked A14 and the new A14, local traffic travelling via the local access road and traffic bound for Cambridge Services. The layout would be straightforward to sign and there would be little confusion for motorists as to the route to take. We would welcome the opportunity to meet and discuss this issue with our technical specialists.</p>	
10	<p><b>Design and Engineering</b></p> <p>Access to the A14 at Cambridge Services</p>	<p>The planned design at Cambridge Services will enable traffic to rat run through villages en route to access employment to the south of Cambridge. This will result in an increase in traffic volumes and associated impacts.</p> <p>What is the strategic imperative to preserving Cambridge Services, other than the petrol station?</p> <p>There are no obvious commercial sites that require that level of access proposed for Cambridge Services.</p>	<p>The number of lanes on the proposed A14 has been selected to cater for the predicted traffic. Consequently congestion is like to be far less frequent that it is now. It is not envisaged that longer distance strategic traffic would need to leave the trunk road network and route through villages in order to avoid congestion on the A14 near Swavesey.</p> <p>On this category of road it is Highways England policy to support the provision of 'offline' service areas (fuel, parking, food, toilets etc) at regular intervals (less than 30 minutes driving time, approx. 30 miles) with access via full junction standard merge and diverge slip roads, rather than traditional 'online' road side filling stations, cafes and laybys. These features interrupt the main traffic through flow by mixing slower</p>	Not agreed.

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
			<p>accelerating and decelerating traffic, thereby reducing traffic capacity and possibly reducing safety, and are consequently not proposed for the A14 improvement scheme.</p> <p>Cambridge Services meets the provision criteria; the next service area on the M11 being Birchanger at M11 j8, some 50km (31 miles) to the south, and Brampton Hut 19km (12 miles) to the north.</p> <p>Cambridge Services will remain at Swavesey junction.</p>	
11	<p><b>Design and Engineering</b></p> <p>The A1198 is more suitable than local roads for access</p>	<p>The A1198 needs to be incorporated into a strategic solution.</p>	<p>It is anticipated that the A14 scheme would provide some relief of congestion on roads including the A1198. In times of congestion on the A14, the A1198 and A428 are used as an alternative route. The improvements to the capacity of the A14 would allow these trips to return to either the new Huntingdon Southern Bypass or to the de-trunked A14. However, it is expected that the capacity created on the A1198 would be backfilled by other local traffic that would otherwise be rat-running on the local roads.</p> <p>As a result of this rerouting of traffic, Highways England's traffic forecasts suggest that flows on the A1198 to the south of the Huntingdon Southern Bypass would increase by around 4% in 2035 as a result of the scheme, but many local roads would be relieved of traffic. Flows on the A1198 to the north of the Huntingdon Southern Bypass are forecast to be reduced by over 30%.</p> <p>While the A14 scheme would result in some changes in traffic flow on the A1198, increases to the south of the Huntingdon Southern Bypass are not predicted to result in material detriment.</p>	<p><b>Agreed.</b></p>

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
12	<p><b>Design and Engineering</b></p> <p>Detailed design is not known</p>	<p>The impact of drainage, landscaping etc have not been communicated locally.</p>	<p><b>Relevant details have been discussed during the pre-application consultation and pre-examination consultation.</b></p> <p>We will continue to discuss matters of detailed design with the Coalition. These issues will also be discussed as part of the parish updates and through landowner engagement.</p>	<p><b>Under discussion.</b></p>
13	<p><b>Air Quality and Emissions</b></p> <p>Air quality deterioration</p>	<p>Particulates will become more widespread and mitigation will be challenging.</p>	<p>Air quality is currently affected by vehicle emissions from roads in Cambridge and Huntingdon, and along the existing A14. As the scheme would enable traffic to use the new Huntingdon southern bypass, a significant improvement in air quality is predicted in several areas, most notably in Huntingdon and along the existing A14 between Swavesey and Girton as the majority of existing traffic would be diverted away from these areas.</p> <p>The scheme would also improve air quality at a number of locations across the area that have been identified as air quality management areas due to existing pollution.</p> <p><b>Schedule 2, Part 1, Requirement 3 of the Revised Draft Development Consent Order (DCO) (Applicant reference HE-A14-EX-59 , PINS reference REP4–021) states that:</b></p> <p><i>“The authorised development must be carried out in accordance with the scheme design shown on the works plans and the engineering drawings and sections unless otherwise agreed in writing by the Secretary of State following consultation with the relevant planning authority on matters related to its functions.”</i></p> <p><b>The need to adhere to Requirement 3 ensures that the development must be</b></p>	<p><b>Not agreed.</b></p>

Ref	Principal Issue	Stakeholder Issue	Highways England Response	Agreed / Not agreed / Under discussion
			<p>carried out in accordance with the scheme design. The design of the scheme is adequate to ensure that the air quality effects would not be significant, and therefore, as a result of compliance with this requirement, no changes to the air quality impacts shown in Chapter 8 of the <i>Environmental Statement</i> (Applicant reference 6.1, PINS reference APP-339) would be anticipated during the operation of the scheme.</p> <p>Highways England does not consider there to be a requirement for post-scheme monitoring as no significant impacts or exceedances of the air quality objectives or limit values have been predicted.</p> <p>Highways England's response to the Second Written Questions, Question 2.1.8 provides further explanation on why the overall conclusions remain the same even if higher traffic growth rates or high than expected emissions rates are applied.</p>	

## 4 Agreement on this SoCG

**This Statement of Common Ground has been jointly prepared and agreed by:**

**Name:**

---

**Signature:**

---

**Position:**

---

**On behalf of:**

Highways England

**Date:**

---

**Name:**

Stephen Jones

**Signature:**



**On behalf of:**

Bourn Parish Council on behalf of a Coalition of 16 Parish  
Councils

**Date:**

11 September 2015

## 5 Appendix A – Relevant representation

Bourn Parish Council represents a coalition of 14 parish councils (subsequently increased to 16) south of the A14. We are concerned about the impact of the proposed A14 improvements on increased traffic flows (rat running) through our villages directly and indirectly by:

- Reducing the A428 effectively to one lane at the A14/M11/A428 intersection; and
- The failure to include provision for all all-ways interchange at the junction enabling A428 traffic to turn south on the M11 to the new centres of employment in and around the biomedical park, south of Cambridge.
- There is a general mandate for the Bourn Coalition to agree the respective position. A transport consultant has been retained for the Local Plan as this mechanism shares the cost and the working principles have been applied to the SoCG discussion.