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WSP

A14 IMPROVEMENT SCHEME

Part 1 - First Stage Review of Consultation Documents

INITAL REPORT

26/06/2014

Quality Management

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A14 IMPROVEMENT SCHEME

Part 1 - First Stage Review of Consultation Documents

26/06/2014

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1 A14 Project Background

1.1 Appointment

1.1.1 WSP has been appointed by Cambridge City Council to provide transport advice on the potential impact of the January 2014 A14 Cambridge to Huntingdon Improvement Scheme (noted A14 Improvement Scheme thereafter in this report).

1.1.2 The following report provides a technical review of the preliminary Highway Agency (HA) public consultation documents provided to support the A14 Improvement Scheme.

1.1.3 This review is intended to provide Cambridge City Council with a technical background to assist them to formulate a formal response to the A14 public consultation.

1.2 A14 Improvement Project Background

1.2.1 The A14 is a major road corridor, linking the Port of Felixstowe, Suffolk, to the Catthorpe Interchange junction with the M1 and M6, near Rugby, Warwickshire. The road is identified by the European Union (EU) as being part of the European network and forms part of the unsigned Euroroutes E24 and E30.

1.2.2 Locally the A14 forms Cambridge's northern bypass and connects to the M11, which forms the western bypass. The A14's Cambridge interchange junctions include, from West to East:

- Junction 31 – Girton: M11 / A428 / A1307 Huntingdon Road;
- Junction 32 – Histon: B1049 Cambridge Road;
- Junction 33 – Milton: A10 Ely Road / A1309 Milton Road;
- Junction 34: - Fen Ditton: Horningsea Road/Ditton Lane; and
- Junction 35: A1303 Newmarket Road.

1.2.3 Cambridge and the wider surrounding area of Cambridgeshire is currently one of the fastest growing areas of the UK both in terms of jobs and population. However congestion both within the City and on the A14 and M11 is currently an ongoing constraint for the local economy.

1.2.4 The HA proposes to improve a section of the A14 between Cambridge and Huntingdon which frequently experiences heavy congestion. As noted, the road plays a vital road for the economy both locally for Cambridge but also nationally, with a large number of heavy good vehicles travelling to and from the Port of Felixstowe.

1.2.5 The HA's proposals to improve the A14 corridor are summarised below:

- Widening the A1 between Brampton and Alconbury from two to three lane dual carriageway;
- Building a new Huntingdon Southern Bypass, including new junctions with the A1 at Brampton and with the A1198 at Godmanchester. This would result in the downgrading of the existing A14 alignment to a county road between Swavesey and Ellington, and Alconbury and the Spittals interchange. The proposal would also bring improvements to Huntingdon Town Centre.
- Widening the existing A14 to provide three lanes in each direction between Swavesey and Bar Hill and up to four lanes in each direction between Bar Hill and Girton;
- Widening the section of the Cambridge Northern Bypass between Histon and Milton (which is already being implemented);
- Improvement of existing A14 junctions at Swavesey, Bar Hill and Girton; and

- Provision of a new local access road, to be constructed between Fen Drayton, Swavesey and Girton. This road is intended to cater for local traffic between Cambridge and Huntingdon and provide access to properties and businesses along the corridor.

1.2.6 Due to strong public opposition during preceding consultation, in December 2013, the Government concluded that the A14 should not be tolled.

1.3 Evaluation of the Impact of the A14 on Cambridge City Network

1.3.1 This document aims to assist Cambridge City Council to formulate a formal response to the A14 Improvement Scheme public consultation. As such this report provides:

- A summary of the City's comments and requests for additional clarification, regarding the traffic modelling results currently published by the HA;
- A technical transport review of the public consultation scheme drawings and the HA Preliminary Traffic Report, focusing on the traffic impact on Cambridge and the arterial roads coming into the City;
- A detailed review of the HA proposals for maintaining the access to the Cambridge Crematorium.

2 Cambridge City Council's Current Position

2.1 Summary of Cambridge City Councils Position

2.1.1 The City Council is supportive of improvements to the A14 and the strategic investment for the region. The A14 has been a limiting factor on Cambridge's economic growth and its improvement will bring a number of economic and potentially social benefits to the City, and the region as a whole. Although supportive, the Cambridge City Council needs to be able to understand, in detail, how the proposals will impact on the City and its environment, to enable Cambridge City Council to work with the HA to ensure acceptable impact mitigation is identified and implemented at the local level. At this stage of consultation, based on material currently released by the HA, the City Council does not feel there is currently sufficient detailed information available to be able to fully assess the level of impact and hence judge what mitigation needs to be made.

2.2 Summary of Preliminary Traffic Report Review

2.2.1 Having reviewed the HA's 'Preliminary Traffic Report', WSP, on behalf of the City Council, would like to raise the following points of enquiry / requests for additional information, from the HA:

2.2.2 Current modelling outputs provided in the 'Preliminary Traffic Report' are generated by an updated version of the 2006 CSRM model taking into account transport schemes between 2006-2012 and committed housing developments and transport improvements within the surrounding area (CHARM). A key question of the model, given its original intended use as a strategic model for Cambridge, is how well it is suited to identifying accurate impacts on the local highway network of Cambridge which lies beyond the strategic network. The City Council therefore requires access to the Local Model Validation Report in order to assess how base level flows of the model have been calibrated and validated and to better understand how the model iterates traffic movements as roads reach capacity.

2.2.3 The 'Preliminary Traffic Report' provides outputs as AADT flows which, although providing a measure of general impact, do not provide an assessment of peak hour, therefore potentially masking the level of impact during the time of peak traffic movements. Further modelling output during the AM and PM peak hour is therefore requested to fully judge the impact on Cambridge's local roads.

2.2.4 The local road AADT outputs of the A14 CHARM model estimate that as a direct consequence of the scheme, the local radial routes of Huntingdon Road, Histon Road and Milton Road will all experience traffic growth at a direct consequence of the A14 scheme (associated with the freeing of supressed demand). The greatest of these impacts is felt on the Huntingdon Road which is estimated to experience +4% (500 vehicles per day) increase in traffic as a consequence of the scheme opening in 2020 and +15% (2000 vehicles per day) increase by 2035. This is on top of a base level of traffic stated as 10500 vehicles per day in 2011, rising to 13,000 vehicles per day by 2020 and 13500 by 2035.

2.2.5 Taking Huntingdon Road as an example, the following clarifications are requested in order to fully understand the validity of these future generated flows:

- How have the base flows of the model been calibrated and validated? Access is required to the Local Model Validation Report

- Further explanation is requested on why local road traffic growth is occurring with the scheme in place, is it through diversion from other routes or the releasing of supressed demand. No detailed commentary is currently provided by the HA to help explain this growth.
- What is the current capacity of the affected radial routes around Cambridge? Can these roads physically handle an additional increase in traffic and when during the day is this forecast growth occurring? Is this increase occurring primarily in the peak or, due to there being no spare capacity at present in the peak, is this creating peak spreading?
- Although the general traffic impact of the scheme has been identified, no mitigation for this impact has been proposed. Measures, such as increased frequency of the CGB (for example) should be considered to help control or offset this impact. The City Council would also not want the additional highway capacity on the A14 to abstract demand from CGB or other public transport services.

2.2.6 In relation to the benefits of the scheme, the Madingley Road is estimated to benefit from the A14 proposals with vehicles per day reducing by -3% in 2020 (500 vehicles) and -7% (1500 vehicles) by 2035 (compared to a no scheme scenario). This is on a base level of traffic stated as 18500 vehicles per day in 2011, rising to 19,500 vehicles per day by 2020 and 22500 by 2035 (due to background growth). This indicates that Madingley Road is already operating at or near capacity and additional traffic is diverting away from this route when the A14 scheme comes forward. However, overall between 2020- 2035, traffic will still increase due to local development.

2.2.7 No data is currently provided on the effect of the scheme on the M11 flows and also on the Horningsea interchange and associated local road of Ditton Lane. There is also currently no assessment of change in traffic accidents as a result of expected traffic growth. It is requested that the HA provide modelling data on these areas of the network.

2.2.8 Overall the current model flows suggest that there will be an increase in traffic flows on radial routes from the north and north-west of Cambridge, but insufficient data is currently provided to enable the City Council fully assess the impact of this traffic increase on the City of Cambridge.

3 A14 Preliminary Traffic Report Review

3.1 Introduction

3.1.1 In order to estimate the impact of the A14 scheme on traffic congestion, the Highways Agency (HA) has prepared a 'Preliminary Traffic Report' which provides Annual Average Daily Traffic (AADT) flows for the base year of 2011 and then predicated future flows relative to a scheme opening year of 2020 and a future assessment year of 2035.

3.2 Forecasting and Modelling

3.2.1 In order to provide an assumption of transport benefits of the scheme the HA has built a new transport model which is derived from the Cambridge Sub-Regional Model (CSRM). The performance of the model was reviewed to represent traffic conditions in 2011 and a new model, the Cambridge to Huntingdon A14 Roads Model (CHARM), was used as a base for the assessment.

3.2.2 The HA has produced traffic forecasts for the years 2020, which is the opening year of the scheme and 2035, the anticipated year used to assess the scheme in capacity against future growth.

3.2.3 In order to provide an estimate of anticipated traffic flows in these future base years, industry standard methods of modelling have been used. As such the predicted background growth has been assessed using the Trip End Model Presentation Program (TEMPro) in conjunction with the National Trip End Model (NTEM).

3.2.4 The Heavy Goods Vehicle Traffic has been forecasted using the latest Road Transport Forecasts (July 2013).

3.2.5 The new model also includes a series of local transport networks improvements which have occurred between the original base year of the CSRM Model (2006) and 2012. Only schemes which have gone ahead or are judged as more than likely to go ahead have been included.

3.2.6 In addition, the HA traffic forecast includes any additional committed major residential and or employment development within the local area. Relative to Northstowe, a development of 1500 homes has been considered in the core scenario,

3.2.7 The list of these transport schemes and developments is provided on page 7 and 8 of the Preliminary Traffic Report. It is noted that Waterbeach Barracks is not currently included in this list of assumed developments.

3.3 Traffic Forecast on Strategic Routes

3.3.1 The traffic forecasts currently released by the Highway Agency are based on Annual Average Daily Traffic (AADT) values. This represents the average traffic flow in a 24 hour period. The document therefore does not provide any information on traffic conditions at peak periods, variations across a normal week or identify weekend peak periods of traffic.

3.3.2 Without the scheme in place the HA has predicted that traffic growth in the order of 10% to 15% is expected between the present year and the first forecast year of 2020. The rate of growth differs from road to road depending on the characteristics of each road, such as the amount of congestion on it and the availability of alternative routes.

3.3.3 By providing predictions of flows in 2020 and 2035, both with and without the scheme, the direct effect of the scheme can be identified. The following table summarises the HA forecast in 2020 and 2035 on major roads in Cambridgeshire (with and without the scheme).

Table 3-1 Comparison of 2-way AADT Forecasts on Major Routes in 2020 and 2035 With and Without Scheme

Road Section	2020 Opening Year			2035 Forecasted Year		
	Without Scheme	With Scheme	Percentage Change	Without Scheme	With Scheme	Percentage Change
A14 West of A1	47000	48000	+2%	54000	56500	+5%
Old A14 Spur east of A1(M)	50000	22000	-44%	57500	26500	-54%
Old A14 Through Huntingdon	83000	13500	-84%	90000	16000	-84%
A14 Huntingdon Southern Bypass	-	59500	-	-	74500	-
A14 Swavesey to Bar Hill	86500	91000	+5%	89500	106500	+19%
A14 Bar Hill to Girton	105500	110500	+5%	113500	132000	+16%
A14 Cambridge Northern Bypass	76000	82500	+9%	85000	96000	+13%
A428 Near Bourne Airfield	34500	32000	-7%	47000	39000	-17%
A1198 West of Hilton	14500	15000	+3%	23000	19000	-18%
A1 North of A14	46000	80500	+75%	60000	102500	+71%
A1 South of A14	58500	60500	+3%	69000	72000	+4%
A141 North of Huntingdon	19000	18500	-3%	21000	20500	-3%

Source: Highway Agency

3.3.4 The HA anticipates that the proposed scheme would provide increased capacity or road space and also provide free flow traffic on the main A14 corridors at key junctions such as Girton and through Huntingdon.

3.3.5 The document notes that all the major routes identified as experiencing significant traffic increase (within the above assessment) will be improved as part of the scheme (e.g. A1 north of A14).

3.4 Traffic Forecasts on Local Roads

3.4.1 The HA acknowledges that traffic patterns on local roads will significantly change as a result of the scheme.

3.4.2 The HA modelling estimates that local roads, without the scheme, are likely to experience traffic growth between 10 to 30% between 2011 and 2020. Mainly this growth is attributable to forthcoming development and growth in the local area; however some of the growth of traffic may also come from a further congested A14 which results in drivers diverting onto local roads. Further increase in traffic is also predicted on local roads by 2035.

3.4.3 The HA note that with the scheme, forecasts show that many of the key radial routes around Cambridge would experience some traffic growth due to the release of suppressed demand in this area.

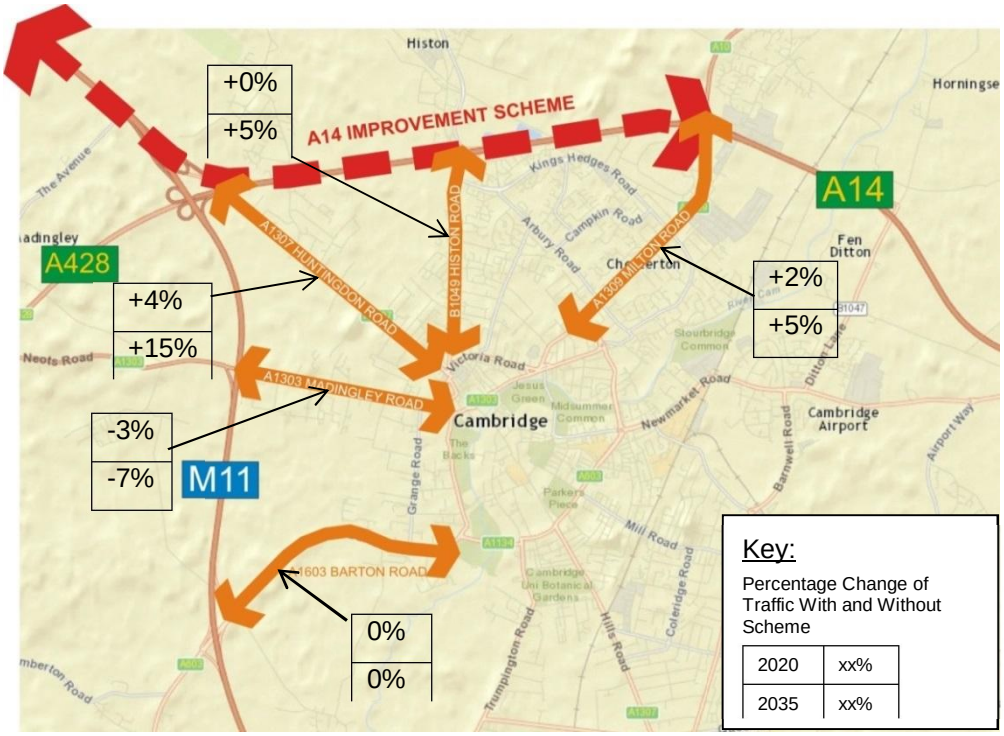
3.4.4 **Table 3-2** presents the comparison of the forecasted traffic for 2020 and 2035 with and without scheme. These are also shown in **Figure 3-1**.

Table 3-2 Comparison of 2-way AADT Forecasts on Cambridge Local Roads in 2020 and 2035 With and Without Scheme

Road Section	2020 Opening Year			2035 Forecasted Year		
	Without Scheme	With Scheme	Percentage Change	Without Scheme	With Scheme	Percentage Change
A603 Barton Road (east of M11)	14500	14500	0%	17500	17500	0%
A1303 Madingley Road (east of M11)	19500	19000	-3%	22500	21000	-7%
A1307 Huntingdon Road (south of A14)	13000	13500	+4%	13500	15500	+15%
Cambridge Road (through Girton)	4000	4500	+13%	6000	6000	0%
B1049 Bridge Road (through Impington)	18500	21000	+14%	22500	23500	+4%
B1049 Histon Road (south of A14)	19500	19500	0%	21500	22500	+5%
A10 Ely Road (through Milton)	25500	25500	0%	25500	25500	0%
A1309 Milton Road (south of A14)	30500	31000	+2%	33000	34500	+5%
A10 Ely Road (past Waterbeach)	17000	16500	-3%	20000	20000	0%

Source: Highway Agency

Figure 3-1 Summary of Forecasted Change of Traffic Flows With and Without Scheme in 2020 and 2035



3.4.5 The results of this analysis indicate that traffic will increase on the local Cambridge radial routes of Huntingdon Road, Histon Road and Milton Road as a direct result of the scheme.

3.5 Network Capacity and Performance

3.5.1 In terms of road capacity, the HA predicts (in relation to the A14 Improvement Scheme) that by 2020 the new Huntingdon Southern Bypass will operate at 50%-60% capacity. Currently the HA estimates that the A14 route through Huntingdon would operate between 85%-110% if nothing is done and is therefore a significant improvement. Similarly the Huntingdon Southern Bypass is forecasted to operate at 65%-75% capacity by 2035 (with the scheme).

3.5.2 The proposed scheme is also anticipated to provide additional capacity between Junction 28 at Swavesey and Junction 31 at Girton. This section is forecasted to operate at 70%-80% with the scheme in 2035 compared to 85%-100% without the scheme.

3.5.3 In addition the HA has provided journey time information gathered from its model for the following routes, which compares traffic conditions before and after the scheme to demonstrate time saving:

- Route 1: A14 J20 Ellington – A14 J31 Girton (via Huntingdon);
- Route 2: A14 J20 Ellington – A14 J31 Girton (via Huntingdon Southern Bypass);
- Route 3: A1 J14 Alconbury – A14 J31 Girton (via Huntingdon); and
- Route 4: A1 J14 Alconbury – A14 J31 Girton (via Huntingdon Southern Bypass).

3.5.4 **Table 3-3 Comparison of Forecast Journey Times in 2020 and 2035, with and without the scheme**

Route	Direction	2020			2030		
		AM	IP	PM	AM	IP	PM
Time Difference Route 1	Eastbound	+3.5	+2.0	+2.0	-3.5	-2.5	-7.5
	Westbound	+3.5	+0.5	+0.5	-0.5	-3.5	-3.5
Time Difference Route 1 & 2	Eastbound	-9.0	-6.5	-9.5	-17.0	-11.0	-20.0
	Westbound	-8.0	-7.5	-10.0	-14.0	-12.0	-16.5
Time Difference Route 3	Eastbound	+2.5	+1.0	+1.0	-3.5	-3.0	-7.0
	Westbound	+2.0	-1.0	-0.5	-1.5	-5.0	-4.5
Time Difference Route 3 & 4	Eastbound	-4.5	-3.5	-5.5	-8.0	-6.0	-11.5
	Westbound	-3.5	-4.0	-5.0	-9.0	-7.0	-10.5

Source HA – Time saving in minutes

3.5.5 The HA anticipates that without the scheme travel times would significantly worsen over time. The proposed A14 Improvement scheme is anticipated to provide quicker journeys by up to 14-20 minutes (between Ellington and Girton via the Huntingdon Southern Bypass) during the morning and evening peak periods and as much as 11-12 minutes in the inter-peak period.

3.6 Northstowe & Alconbury Weald

3.6.1 In addition to the traffic growth and impact of the A14 Scheme, the HA has provided a further study of the impact of local major development on the corridor in 2035.

3.6.2 In this section of the report the HA have assumed that by 2035, Alconbury Weald will be fully built out to 5,000 homes and 8,000 jobs and Northstowe will provide 10,000 homes. However the HA has not included developments which are at earlier planning stages such as Waterbeach Barracks,

Cambourne West and Bourn Airfield, for example. Should the planning status of these developments change, the HA state they will be considered in the next round of traffic studies.

3.6.3 In summary, the impact of a fully built out Northstowee and Alconbury is estimated to generate around a 5% increase on traffic on the strategic route network. Sections of the strategic network located in vicinity of the developments would experience higher impact.

3.6.4 The HA has also forecast the impact of these developments on local roads and suggests that in general the local roads would not experience a significant change with any major impact localised near the developments.

3.6.5 The exception to this is the A1307 which is estimated to experience a significant increase of traffic as people seek to reach Cambridge from the Northstowe development.

3.6.6 Focusing on local Cambridge roads Table 3-4 summarises the expected growth on the local network due to these two major developments.

3.6.7 Table 3-4 Comparison of 2-way AADT Forecasts on Cambridge Local Routes in 2035 With and Without Northstowe and Alconbury

Road Section	Core Growth	High Growth	Percentage Change
A603 Barton Road (east of M11)	17500	18000	+3%
A1303 Madingley Road (east of M11)	21000	20500	-2%
A1307 Huntingdon Road (south of A14)	15500	20000	+29%
Cambridge Road (through Girton)	6000	6000	0%
B1049 Bridge Road (through Impington)	23500	24000	0%
B1049 Histon Road (south of A14)	22500	22500	0%
A10 Ely Road (through Milton)	25500	25500	0%
A1309 Milton Road (south of A14)	34500	35000	+1%
A10 Ely Road (past Waterbeach)	20000	20000	0%

Source: Highway Agency

Core growth: forecast housing and employment growth NOT INCLUDING proposed Alconbury Weald development and Northstowe development over 1,500 homes

High growth: forecast housing and employment growth INCLUDING proposed Alconbury Weald development and Northstowe development over 1,500 homes

3.7 HA's Proposed Next Steps

3.7.1 The Highway Agency acknowledges that the traffic figures presented for this public consultation are interim and that further studies will be undertaken as the scheme progresses and the design develops.

3.7.2 The CHARM model will also be enhanced using extensive data collection of traffic flows and journey times to match current 2014 demand. The CSRM will also be modified, taking on views of the latest planning policies and expectations of scheme delivery.

3.7.3 The models will be refined to estimate current travel demand in 2014 and new forecasts of travel patterns in 2020 and 2035.

4 Summary & Review of Public Consultation Drawings

4.1 Introduction

4.1.1 In relation to the Highway Agency's drawings of General Arrangement (GA), sheets 17, 18 and 20 to 24 are relevant to Cambridge. These focus on the proposed improvements to the A14 relative to junctions and local roads in the Cambridge area.

4.1.2 These drawings are detailed and summarised in the paragraphs below.

4.2 Bar Hill interchange – HA Drawing 17

4.2.1 ***Proposed Design***

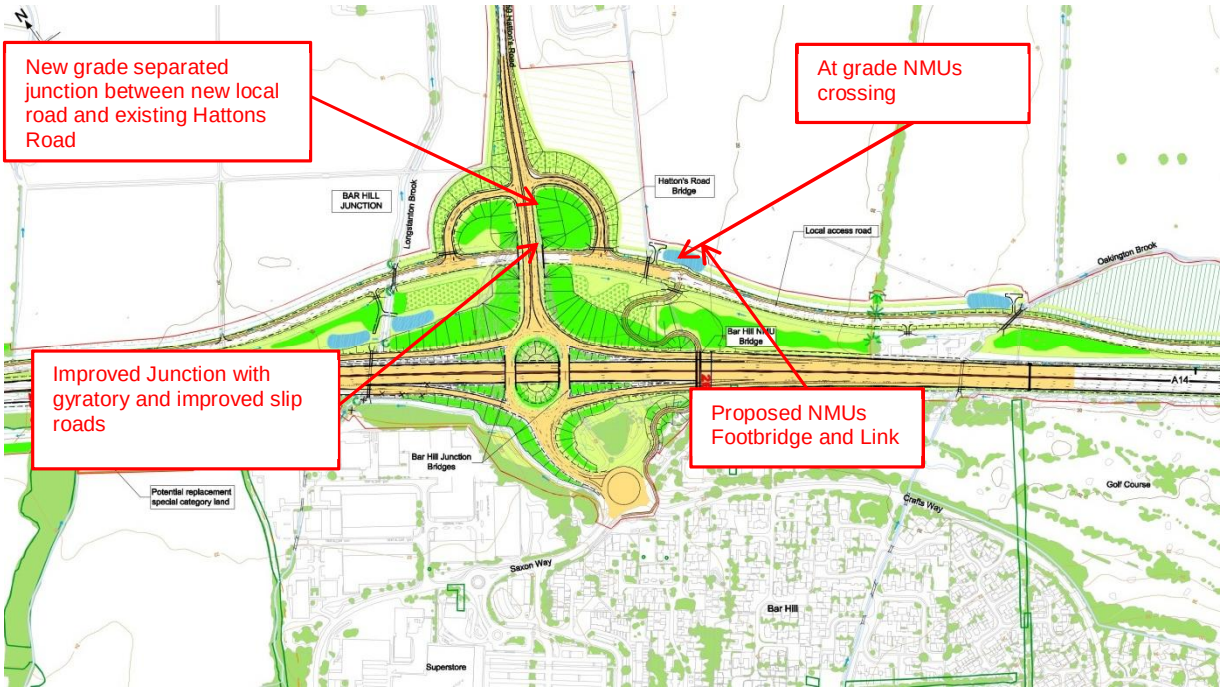
4.2.2 The HA proposes to provide a new bridge over the A14, in addition to the existing bridge, to create a grade separated roundabout junction.

4.2.3 The layout will improve the current on and off slip roads which are currently departing from standards.

4.2.4 A new footbridge will be provided for the use of Non Motorised Users (NMU) to link to a proposed local access road to the north of the A14, running to Bar Hill.

4.2.5 Figure 4-1 below shows the proposed drawing.

Figure 4-1 HA Drawing GA Sheets 17 – Bar Hill Junction 29



4.2.6 ***WSP review***

4.2.7 The new Bar Hill junction will allow the proposed carriageway widening and improve the current layout with the provision of adequate slip roads.

4.2.8 The proposed grade separated gyratory junction will provide additional capacity which will assist in delivering the Alconbury / Northstowe development.

4.2.9 The grade separated junction between the proposed local access road running along the A14 and Hattons Road is also in anticipation to the high traffic volume that the junction will experience in the future.

4.2.10 WSP welcomes the provision of the NMU links from Bar Hill to Alconbury, or Cambridge, along the new local access road. However a difficult gradient may be experienced on the approach arms of the footbridge. More importantly NMUs will be required to cross at grade in several locations on roads that will carry significant traffic. The design does not provide, at this stage, sufficient information to know if safe crossing can be achieved at these locations.

4.2.11 The NMU links also do not seem to have priority over side roads or accesses which can potentially discourage use, particularly for commuting.

4.3 GA Sheets 18 and 20

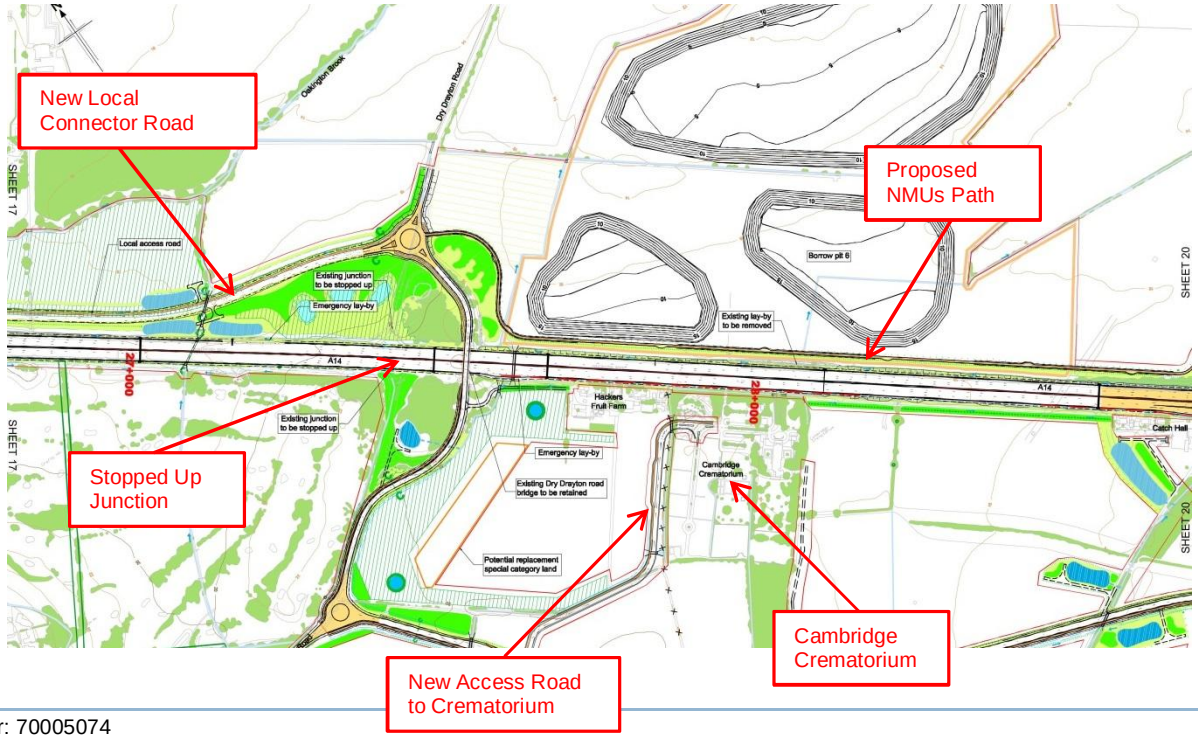
4.3.1 ***Proposed Design***

4.3.2 The HA proposal is to provide 4 lanes of traffic between Bar Hill and the Girton Interchange. As such the design includes closure of the current Dry Drayton Road (Junction 30), accesses to local farms and Cambridge Crematorium's direct accesses onto the A14.

4.3.3 The existing Dry Drayton Bridge would be retained and forms part of the proposed local access road between Huntingdon and Cambridge.

4.3.4 In terms of NMUs, a new local road will provide off road facilities south of the A14 and over the Dry Drayton Bridge. This links to a new NMUs only path (also potentially serving as maintenance track) which will also run parallel of the A14 and start from Dry Drayton Road.

Figure 4-2 HA Drawing GA Sheets 18



4.3.5 ***WSP review***

4.3.6 In addition to the carriageway widening, the proposed layout will result in the closure of direct private accesses onto the A14. This includes the stopping up of the A4 access into the Cambridge Crematorium.

4.3.7 Access to these private properties and the Cambridge Crematorium will now be gained via the new local access road.

4.3.8 The Dry Drayton Road Junction 30 is also proposed to be stopped up. As a result Dry Drayton and Oakington residents will now be requested to drive through Barr Hill junction 29 or route on the new proposed local access road.

4.3.9 In terms of capacity and safety WSP welcomes the proposal of closing these accesses which are generally sub-standard and will result in the reduction of conflict points. The peak period of use of the Crematorium is outside “normal” peak periods and it is anticipated that the proposed new local road will be sufficient to provide access.

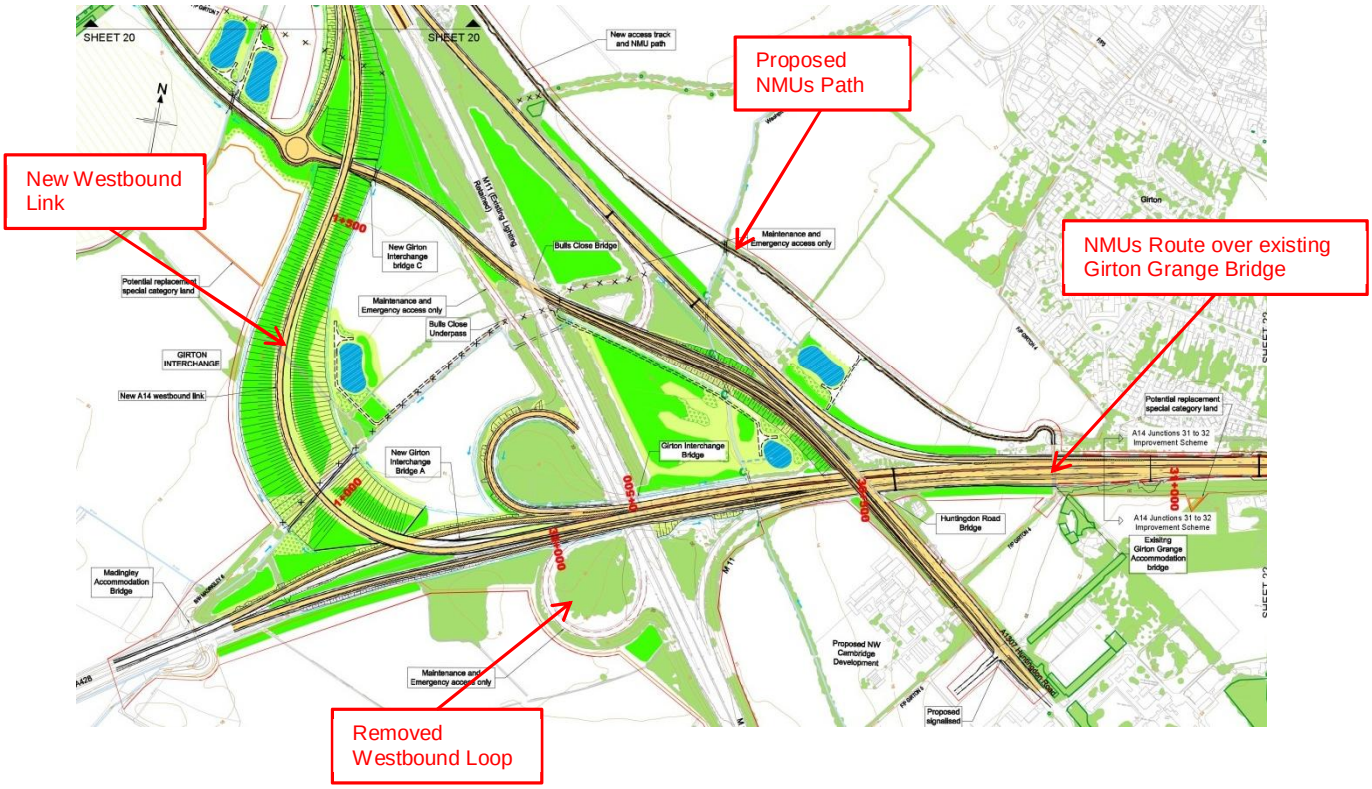
4.3.10 The new NMUs links will be beneficial to the area and add more direct routes to Cambridge from the villages of Bar Hill and Dry Drayton.

4.4 Girton Interchange HA Drawing GA 21

4.4.1 ***Proposed Design***

4.4.2 The HA proposes to modify the junction to provide free flow traffic along the A14. As such it would replace the existing westbound loop by a new A14 westbound link. The design also proposes a direct connection from Huntingdon Road to the new local road. The design is shown on Figure 4-3 below.

Figure 4-3 Girton Interchange – HA Drawing GA Sheet 21



4.4.3 ***WSP Review***

4.4.4 Currently the Girton Interchange provides free flow traffic on the westbound direction to the A428. However, most traffic currently routing through the junction drives on the A14 in a west to north direction. Removing the loop and existing weaving conflict with the M11 north-eastbound direction of traffic will reduce conflict and improve capacity of the junction.

4.4.5 On the eastbound direction two lanes of traffic will join the A14 Cambridge Northern Bypass with a gain of one lane.

4.4.6 Huntingdon Road will continue to have a direct access to the A14, as per the current layout on the south eastbound direction, and via the new local road, through the creation of a north westbound on-slip road.

4.4.7 The Avenue access to the A14 will be stopped up and access to Madingley Hall will be from the south or Dry Drayton Road.

4.4.8 NMU access will be either provided alongside the new local road directly onto Huntingdon Road or via the new NMU track to the north of the A14, which will connect to the existing Girton Grange Accommodation Bridge. This layout appears to provide additional connection which should encourage more people to cycle on this northwest / southeast corridor.

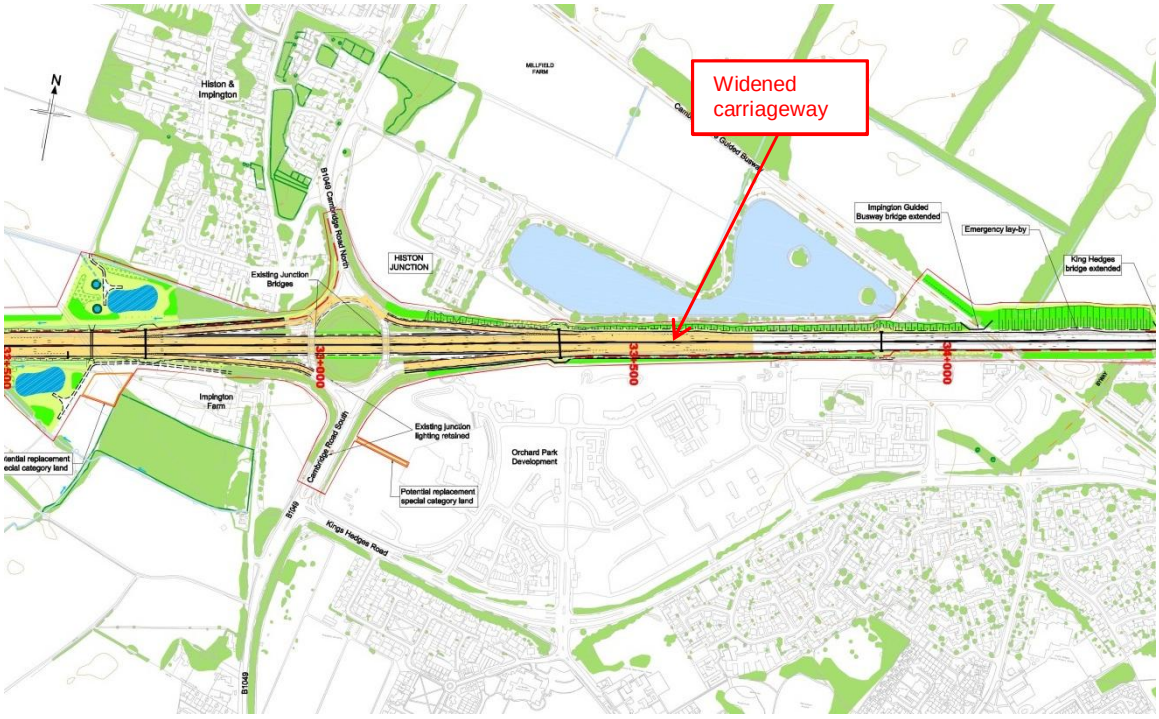
4.5 Histon Interchange HA Drawing GA Sheet 23

Proposed Design

4.5.1 The design proposed, on the A14 Cambridge Northern Bypass between Girton and Milton, is to widen the carriageway from two to three lanes. The proposed design at the Girton Interchange retains in principle the current layout.

4.5.2 The design does not alter NMUs routes. Figure 4-4 below presents the proposed highway improvements.

Figure 4-4 Histon Interchange – HA Drawing GA Sheet 23



4.5.3 ***WSP Review***

4.5.4 The proposed alteration should improve driving conditions on Cambridge Northern Bypass. Histon's existing junction will thus continue to restrict the traffic along the B1049 Cambridge Road. The A14 Improvement Scheme may generate an increase of traffic onto B1049 Cambridge Road until Histon Interchange capacity is reached.

4.5.5 The NMUs network will not be modified at this junction as a result of the scheme.

4.6 Milton Interchange HA Drawing GA 24

Proposed Design

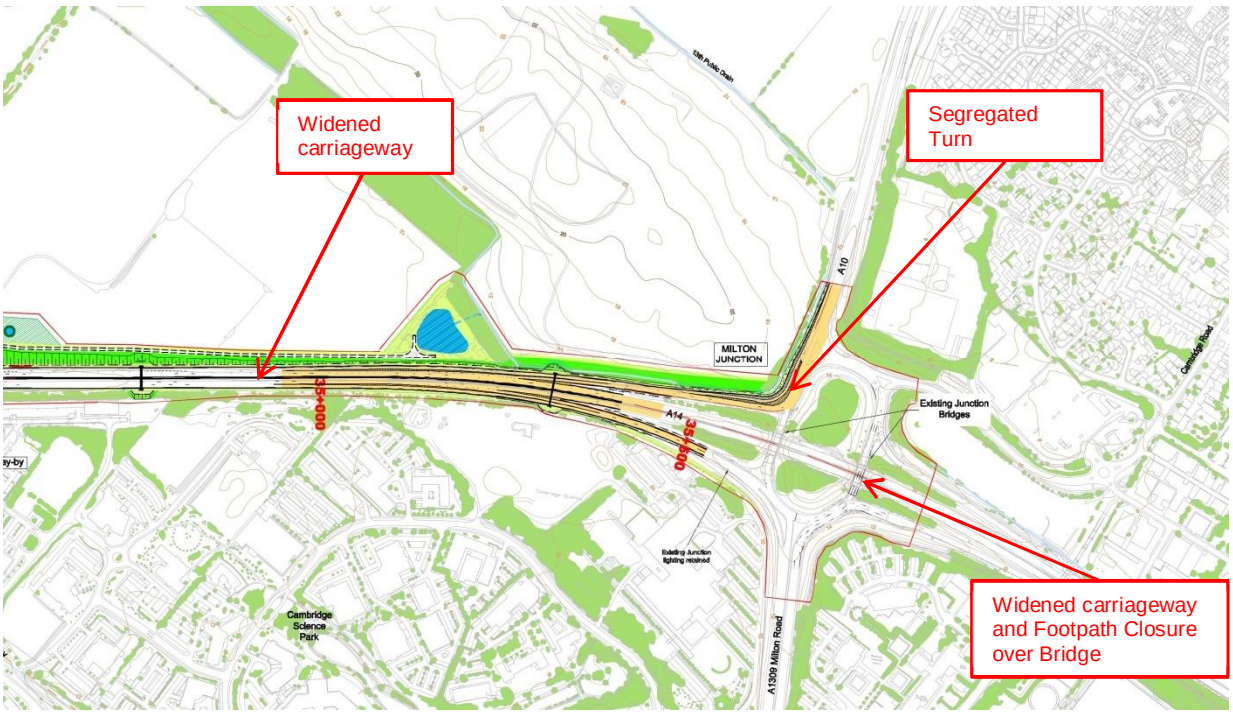
4.6.1 The HA propose to widen the A14 Cambridge Northern Road carriageway between Girton and Milton Interchanges. As a result, Milton Interchange will be improved with lane gain / lane drop at the junction.

4.6.2 In addition, there are proposals to improve the connection to the A10 with the provision of a segregated turn from the westbound off slip road.

4.6.3 Furthermore the carriageway over the eastern bridge of the interchange would be widened from two to three lanes to increase capacity. As a result the footpath on the same bridge would be stopped up.

4.6.4 The HA design is shown on Figure 4-5 below.

Figure 4-5 Milton Interchange – HA Drawing GA Sheet 24



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4.6.5 The capacity on the A14 Cambridge Northern Bypass will be improved as well as the capacity of Milton Interchange. It is however anticipated that this will result in additional traffic movements towards the Science Park or Cambridge itself along Milton Road.

4.6.6 It should be noted that this design is not likely to fully accommodate proposed future growth in the Waterbeach area and thus further redesign of the junction should be anticipated in the future.

4.6.7 The design includes stopping up the existing footpath and NMUs link as a result of widening the carriageway on the eastern bridge of the interchange. Although most NMUs use the Jane Coston Footbridge between Milton Village and Cambridge, some NMUs continue to currently use this link over the interchange bridge.

5 Review of Cambridge Crematorium Access

5.1 Key areas of Comment

5.1.1 In general the closure of the existing access and opening of a local road access is a welcome improvement in relation to highway safety grounds (although it is noted that no accidents were recorded between (2008-12) at the crematorium access). The new local access road will supply a cycle walk route, accessible from Cambridge which will be a benefit for the Crematorium.

5.1.2 Key comments to the proposals are as follows:

- The new local access route is convoluted for those accessing from Newmarket and the A10 (North and East) and requires diversion to the Bar Hill junction which is not ideal for these users.
- With the new local road in place a robust signage will strategy will be required so that visitors can easily find the site. The City Council will need to be consulted on this strategy.
- Although 'indicative noise barriers' are shown on Plan 18 between the A14 and the Crematorium (across the existing access) further details of their design and effectiveness in reducing noise impacts are required. The widening of the A14 at this location to four lanes is a key concern for the relative tranquillity of the site.
- The new local road runs very close to the crematorium woodland which again causes concerns for noise levels and the impact on tranquillity. No 'indicative noise barriers' or other noise mitigation is shown between the new local road and the crematorium.
- Three large borrow pits are identified opposite the Crematorium on the opposing side of the A14. The noise created during construction is again a concern on the tranquillity of the site and further information on when the 'indicative noise barriers', between the A14 and Crematorium, will be in place is needed to judge the expected level of noise impact.

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