

Agenda for the issue specific hearing on traffic and transportation

Wednesday 16 September 2015

Agenda Item 4 Highway Design:

Consideration of traffic routing under the various alternatives suggested at the junction between The Avenue and the local access road (REP8-010, Paragraph 7.2.3):

1. We have reviewed the responses made to date by both Highways England (HE) and Cambridgeshire County Council (CCC) cannot find any evidence that traffic will route through the High Street via Dry Drayton Road as a result of the closure of The Avenue. We make more detailed reference to the modelling undertaken by HE below.
2. We agree the lack of connectivity between the A428 and M11 is the main reason for the increasing congestion in the area, especially between A428, A1303 and M11 (J13). In paragraph 7.2.8 the County Council identifies a solution to this problem, but does not feel compelled to recommend it to the Inspector as a material consideration for this Development Consent Order. On this we disagree with the County, as the plans for the busway between Cambourne and Cambridge as part of the City Deal already have funding and delivery could be coterminous with the A14 upgrade. Such a plan could be more economic and effective and should be drawn to the attention of the relevant Government ministers and HM Treasury (who are funding both schemes) should the DCO be granted without due consideration of this material consideration.

Whether villages with a potential for impact in terms of increased traffic (such as Madingley, Dry Drayton and Hilton) should be added to the list of junctions of concern in terms of monitoring and impact (REP8-010 (Cambs County Council), Paragraph 5.1.3; REP8-005, (Hilton PC) Para 4.1.1, Item 9 and REP8-015 (Highways England), Question 2.12.3).

3. CCC states “The Council does not consider there is an essential need to connect The Avenue to the LAR”. Madingley Parish Council (MPC) has asked for it to be closed, and for CCC to assist MPC with a S116 to ‘stop up’ the Avenue. The reason that MPC and village residents want the Avenue closed is that it has very little utility value for the villagers but is used as a ‘rat run’ by motorists seeking to avoid the congestion around the M11 / A14 Girton interchange. The proposed scheme in fact reduces the utility value of the Avenue to the village even further by removing the connection from the A14 westbound and M11 northbound.
4. Villagers most often use Dry Drayton Road and then Oakington Road Dry Drayton to access the A14 westbound, as it gives the opportunity to avoid any congestion on the A14 by passing over the roundabout at the junction if on the approach to the A14 (travelling north on Oakington Road) stationary traffic is seen on the A14 westbound. Villagers are likely to continue to use this route and would not suffer a loss of connectivity if the Avenue were

closed.

5. HE extoll the benefits of the 4-way junction with the Avenue to the proposed local access road, the main benefit being connectivity between Girton and Madingley, especially for traffic from the A428. Historically, the Avenue was (and south of the A14 still is) a tree lined country lane that connected the parishes of Madingley and Girton. The traffic volumes then would have been much lower and more in keeping with an unclassified road, constrained by drainage ditches and mature trees on each side. What is proposed is a considerable increase of traffic, especially on The Avenue, using this new connection to Girton (and Huntingdon Road Cambridge) from the A428. The number of vehicles using this as a 'rat run' from the A428 and Huntingdon road (and back again) would be much, much greater than local journeys made by Madingley residents and businesses.
6. Madingley already has adequate connections to the city and to the south west of Cambridge, and does not need any additional connectivity that might be a result of the proposed local access road and its connection with the Avenue.
7. Dry Drayton road is similar to the Avenue except that it is narrower in places and there are narrow bends where two HGVs cannot pass each other. Any suggestion that closing the Avenue would cause significant 'switching' of substantially more traffic than currently using both the Avenue and Dry Drayton has not been proven and we have not been shown any evidence that this would be the case.
8. The Modelling that has been done to date by HE has not been based on any traffic count data. To counter this lack of accurate data the Village has formed its own Community Speedwatch team and will, over a 28 day period before the end of this DCO examination, undertake surveys at roads within the 30mph limits within the village at locations agreed with Cambridgeshire Constabulary. We will endeavor to record sufficient data to TA22 standards – AM peak, PM peak, and off peak during mid week and during school term time. We ask that this data be accepted and modeled before the DCO is determined, as we are confident that that this accurate baseline data will have a significant impact on the modeling of current and future projected traffic flows in and around Madingley.
9. All the scenarios presented by Highways England in their modeling of traffic flows through Madingley are based on projected data that has never been reconciled with actual traffic count data. This has resulted in projections that are way beyond the capacity of the road network within Madingley to endure, and are thus unachievable. Therefore the dis-benefits cited by Highways England of closing the Avenue are greatly overstated.
10. The rationale of the positioning of the local access road to the south of the A14 between Girton and Dry Drayton is jeopardized by this fundamental flaw in the model, which arises from the failure of Highways England to collect traffic count data on the road network in and around Madingley

[Representation on Local Traffic Impacts By Cambridgeshire County Council 2 September 2015- \(REP8-010\)](#)

3.1.4 In some cases, changes in local traffic occur because of the Scheme providing new connections and new routes that do not currently exist. For example, Madingley where the new Local Access Road permits a route into Cambridge that is not available at present.

7.2.3 There is therefore, considerable demand to travel on an axis from A14 to A428 even though this is mostly what Highways England considers local traffic. With scheme, and partly because the scheme facilitates the movement, there is an adverse impact on both Dry Drayton and Madingley.

7.2.4 In the case of Madingley, there are significant changes due to connection of The Avenue to the Local Access Road by means of an all movement junction. Further, this all movement junction makes routes through Madingley more attractive to Dry Drayton. Coding errors relating to the length of Oakington Road obscured this in earlier modelling. These errors were corrected in CHARM3A + LIT and as a result there is a significant increase in traffic on the High Street, Madingley in the peak hours.

7.2.5 Madingley Parish Council has asked for The Avenue to be closed to traffic. The County Council has considered this to be of limited benefit within Madingley, as traffic will continue to route through Madingley High Street via Dry Drayton Road. Therefore, significant reductions of traffic in Madingley require also closing Dry Drayton Road with significant connectivity issues.

7.2.7 The Council considers that neither Madingley nor Dry Drayton can be considered in isolation. It is clear that part of the demand to travel through these villages is due to lack of connectivity at Girton and M11 junction 13. Limiting the connection between the LAR and The Avenue to left in/left out or closure of The Avenue would reduce some impacts of the scheme and maintain the status quo. To achieve significant benefits in Madingley would require more drastic measures, such as more road closures, that would have a significant impact on connectivity in the local area. There are no realistic alternative routes to travel between the corridors due to limited connections at Girton and M11 Junction 13.

7.2.8 The County Council accepts the position of Highways England regarding the provision of the missing links at Girton as part of the A14 scheme, and would not wish any material change to the A14 scheme at this time to delay delivery of this important project. However, in the longer term the Council would ask for consideration of a link between the A428 and the local access road to provide an alternative access to north Cambridge as part of the upgrade of the A428, and in the planning of Northstowe Phase 3. The County Council and local authorities can consider public transport alternatives as part of City Deal.

7.2.9 The Council considers that a multi-agency response to connectivity between the A428 and A14 corridors in this area is appropriate, and should be a key part of longer-term transport planning in the area north west of Cambridge.

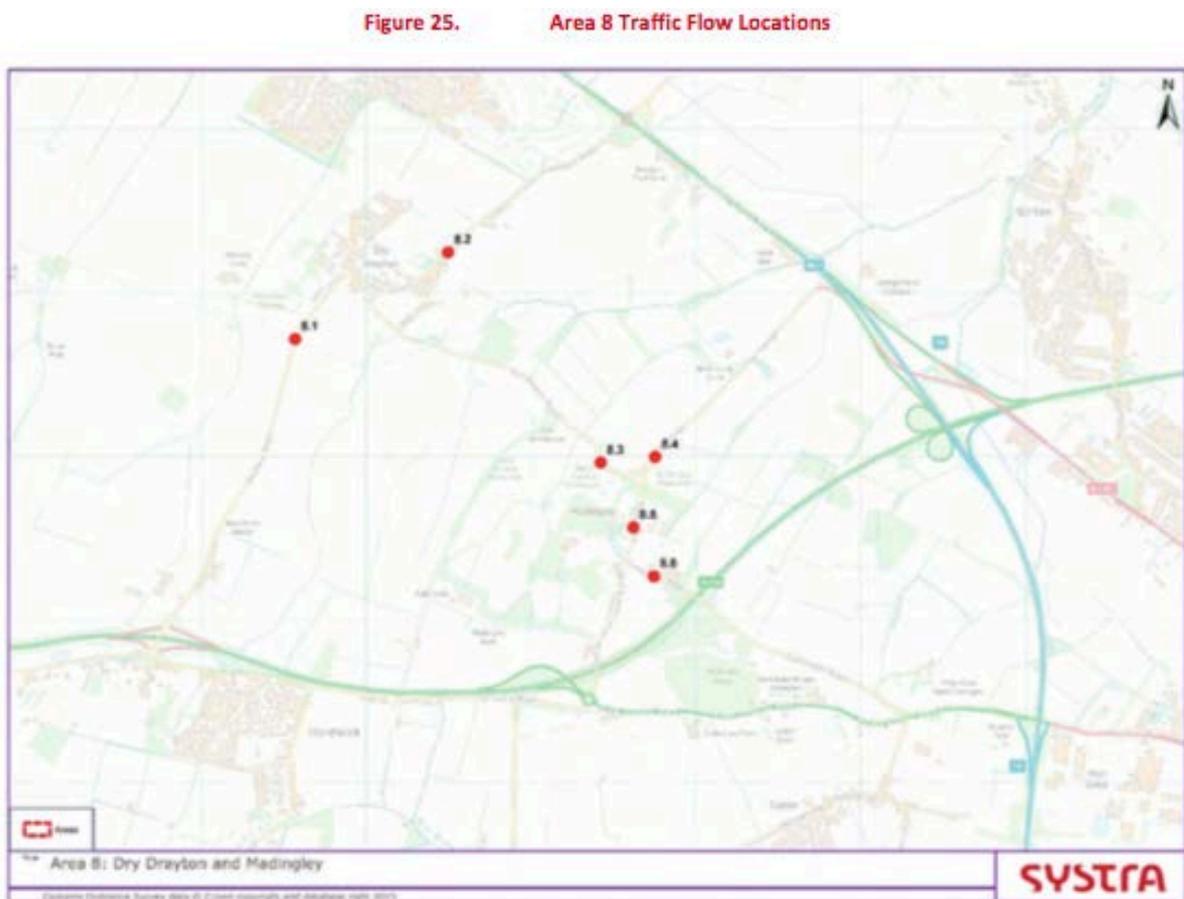
TECHNICAL NOTE 04 (produced by Systra on behalf of Cambridgeshire County Council)

A14 TRAFFIC ASSESSMENT REVIEW - SENSITIVITY TEST 1 28/08/2015
(appendix to REP8-010)

2.10 Area 8: Dry Drayton and Madingley

2.10.1 The likely impact of the scheme on traffic flows on local roads in and around Area 8 is shown in Table 9. The roads selected for analysis are shown in Figure 26 and the flow difference plots between the 2035 'Do Something' and 'Do Minimum' scenarios for the AM and PM peaks are shown in Figures 27 and 28.

Figure 25. Area 8 Traffic Flow Locations



2.10.2 There is predicted to be a small increase in traffic flows through Dry Drayton as a result of the Huntingdon Southern Bypass scheme. This is however, a result of the redistribution of local traffic due to the increased capacity on the Strategic Road network.

2.10.3 There is however, **an increase in traffic movements through Madingley** as a result of the Huntingdon Southern Bypass scheme. This is a result of changes in local trip routing between the village and Cambridge but also **the increased attractiveness of this route for vehicles from a wider area due to the additional capacity and accessibility to the A14 corridor as a result of the scheme and the 'Local Access Road' in particular. Trips are drawn from West of the M11 as well as routes North of the A14 such as Dry Drayton Road to The Avenue.**

Table 9. Area 8 Traffic Flow Changes

POINT REF	ROAD NAME	DIRECTION	2014 BASE VS 2035 DS+		2035 DM VS 2035 DS+	
			AM	PM	AM	PM
8.1	Scotland Road	North	250	225	-21	116
		South	181	246	118	-77
8.2	Oakington Road	North-East	241	214	-42	132
		South-West	125	224	-29	-108
8.3	Dry Drayton Road	North-West	3	14	2	1
		South-East	-34	-6	-126	-44
8.4	The Avenue	North-East	251	312	173	256
		South-West	208	136	191	2
8.5	High Street, Madingley	North	173	258	117	208
		South	131	95	40	-18
8.6	Cambridge Road	East	40	101	-7	-41
		West	69	241	33	-215

Figure 26. Area 8: Dry Drayton and Madingley – Morning Peak Flow Difference

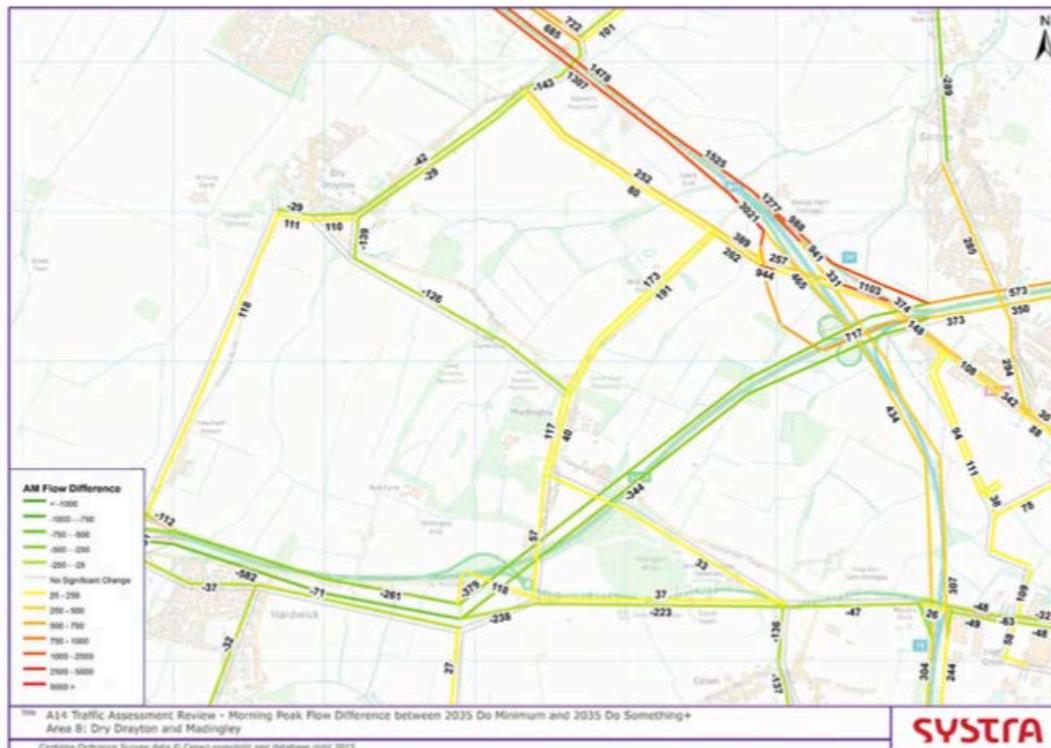
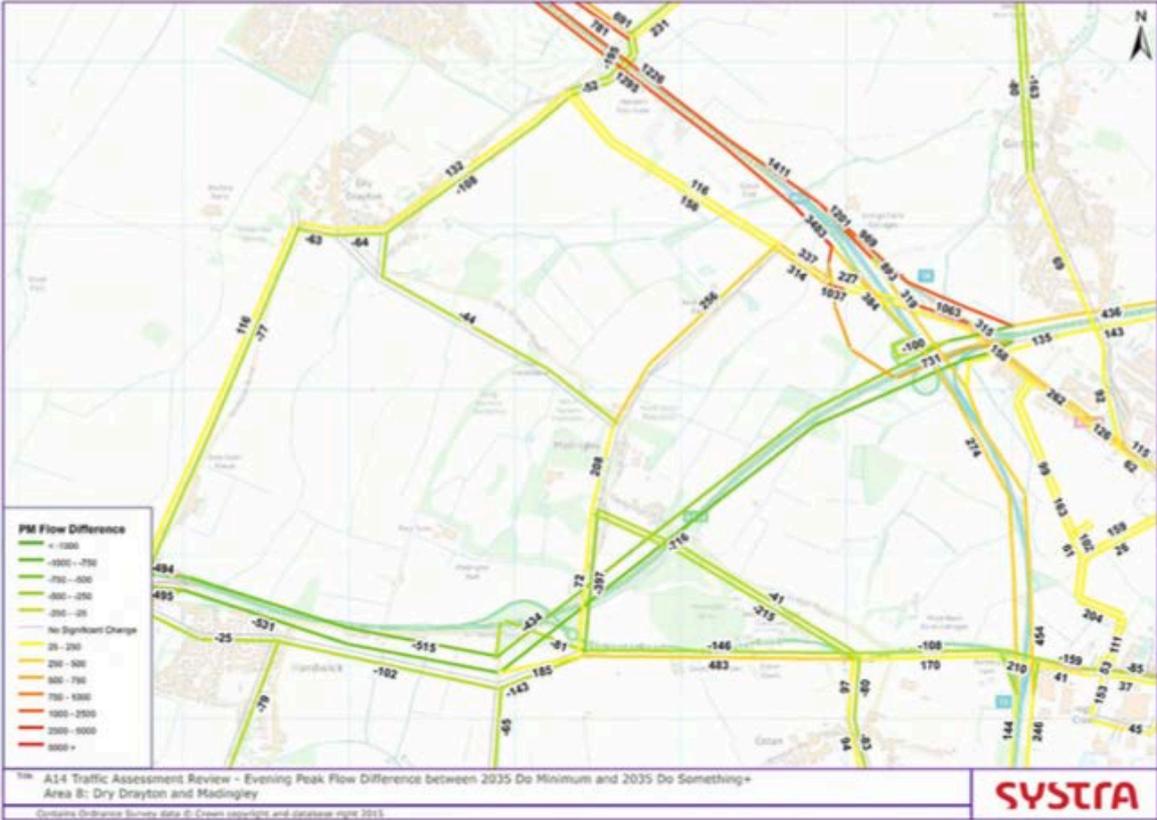


Figure 27. Area 8: Dry Drayton and Madingley – Evening Peak Flow Difference



REP8-015, Question 2.12.3

Highway England's comments on responses to 2nd written questions and other deadline 7 submissions

Table 2-51: Transportation and traffic, question 2.12.3

Question 2.12.3 Why, from the improved connectivity at its junction with the Local Access Road, is The Avenue being made available for traffic wishing to travel into Cambridge via Huntingdon Road avoiding the A14? How does the 'with' scheme availability of this alternative route along The Avenue compare with the provision of Government funding in 2003/04 to discourage 'rat running' in the village of Madingley? (REP2-013, para19)		
Interested Party	Written Representation	Highways England Comments
Cambridgeshire County Council	<p>At a meeting with the Council and Madingley Parish Council on 27 July 2015 the Council said that if consultation as per the Council's guidance on road closures showed support, effects on other communities was satisfactorily considered, and the cost did not fall on the Council, then the Council would be unlikely to object.</p> <p>The Council does not consider there is an essential need to connect The Avenue to the LAR, however local residents would experience a loss of connectivity if it was closed. The improved connectivity at The Avenue with an all movements junction with the LAR will give residents of Madingley choices to access Cambridge, currently residents access Cambridge via Madingley Road or Dry Drayton.</p> <p>As the traffic modelling undertaken by Highways England shows traffic switching from Dry Drayton Road to The Avenue then perpetuating the existing left in/left out junction would eliminate the additional movements made possible by the Scheme, and reflect the historic position of connection to the A14. This would also mitigate the impact of increased traffic on a road of generally poor standard. Closing The Avenue would be unlikely to cause a significant reduction in traffic on the High</p>	<p>The Local Highway Authority (Cambridgeshire County Council) has not indicated that it does not wish for a junction to be maintained in this location. In the absence of any instruction to the contrary, Highways England is bound to maintain a connection to The Avenue. It is not currently proposed to impose any physical restrictions or make any manoeuvre illegal at the junction between The Avenue and the new Local Access Road. However, the scheme does not preclude future works to the junction to prevent certain manoeuvres or the introduction of turning restrictions, should the Local Highway Authority identify the need for this in the future.</p> <p>As set out in paragraphs 15-16 of Highways England's <i>Response to ExA's Second Written Questions: Principal Issue 12 Transportation and Traffic</i> (Applicant reference HEVA14\EX\89, PINS reference REP7-024), the improved connectivity at the junction between The Avenue and the new Local Access Road is required to maintain access from Madingley to the A14 westbound. Currently, Madingley is connected directly to the A14 via an at-grade left in-left out junction where The Avenue meets the A14 westbound on-slip at the Girton Interchange (Junction 31). This connection to the A14 westbound would be closed as part of the scheme, as would the slips at the Dry Drayton junction</p>

Question 2.12.3 Why, from the improved connectivity at its junction with the Local Access Road, is The Avenue being made available for traffic wishing to travel into Cambridge via Huntingdon Road avoiding the A14? How does the 'with' scheme availability of this alternative route along The Avenue compare with the provision of Government funding in 2003/04 to discourage 'rat running' in the village of Madingley? (REP2-013, para19)		
	<p>Street as traffic could use Dry Drayton Road as it currently does. If both roads were closed then Madingley would experience significant loss of connectivity. The Council considers that the matter of closing The Avenue cannot be treated in isolation from impacts on Dry Drayton as an alternative route.</p> <p>In regard to traffic calming, this was provided as part of the CHUMMS recommendations to mitigate the impact of traffic avoiding the existing A14. Lack of connectivity to the A428 at the Girton interchange and M11 Junction 13. The Scheme does not address this lack of connectivity.</p> <p>If traffic routes through Madingley, as it appears to, because it cannot get off the M11 at Junction 13 and traffic calming is needed to mitigate this then the original funded works remain valid and needed. Madingley Parish Council has raised concerns over the design of the existing traffic calming, and addressing this as a legacy of the project would appear to be desirable. The Council note a fuller response will be provide in the LIR and supporting representations at Deadline 8.</p>	<p>(Junction 30). Therefore, in order to maintain the connection to the A14 westbound, it is necessary to permit traffic to turn right out of The Avenue onto the new Local Access Road so that it can access the A14 westbound via Girton Roundabout West. The alternatives for traffic from Madingley wishing to join the A14 westbound would be to travel west on the Local Access Road and join the A14 at the Bar Hill junction (Junction 29) or access the Girton West Roundabout by travelling via Dry Drayton Road and Oakington Road and joining the Local Access Road at the reconfigured Dry Drayton junction, both of which would be longer routes in terms of distance and time.</p> <p>By permitting traffic to turn right out of The Avenue onto the new Local Access Road to access the A14 westbound at the Girton interchange, the scheme would also provide a new route from Madingley towards Cambridge via the A1307 Huntingdon Road. As noted in Cambridgeshire County Council's response, this would give traffic from Madingley a choice of routes towards Cambridge.</p> <p>As set out in paragraph 49 of Highways England's <i>Response to the First Written Questions: Report 5 Design and Engineering Standards</i> (Applicant reference HE-A14\EX\32, PINS reference REP2-006), the proposed Girton Interchange improvements accommodate all of the currently available traffic movements between the M11 motorway, the A14 and A428 trunk roads, and the A1307 Huntingdon Road. The movement of traffic between the A428 west and A14 north is not provided for in the current road layout and the new layout does not accommodate these movements either due to the significant increase in scheme footprint, the increase in scheme costs and significant</p>

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		<p>environmental impacts. However, the design of the Girton Interchange does not preclude the possibility of future improvements to accommodate these movements.</p> <p>The proposed scheme would not be expected to materially change the volume of traffic using the route through Madingley to transfer between the A14 north and the A428 west, therefore any requirement for additional traffic calming as a direct consequence of the lack of provision for these movements at the Girton Interchange is not attributable to the A14 improvement scheme.</p>
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Table 2-52: Transportation and traffic, question 2.12.4

Question 2.12.4 Notwithstanding the fact that the full closure of The Avenue to through traffic is not part of the A14 scheme, is the increased connectivity between The Avenue and the Local Access Road part of the scheme? (REP2-013, para29)

Interested Party	Written Representation	Highways England Comments
Cambridgeshire County Council	<p><i>"The view of the County Council is that the increased connectivity arises from the routing of the LAR south west of the A14, and the creation of an all movements junction with the LAR in place of the existing left in/left out. These are part of the Scheme, and the increased connectivity is therefore part of the Scheme. Therefore, the consequences of that are a consequence of the Scheme, and must be considered as impacts of the Scheme."</i></p>	<p>As set out in paragraph 23 of Highways England's <i>Response to ExA's Second Written Questions: Principal Issue 12 Transportation and Traffic</i> (Applicant reference HE\A14\EX\89, PINS reference REP7-024), the increased connectivity between The Avenue and the Local Access Road is part of the scheme.</p> <p>The Local Highway Authority (Cambridgeshire County Council) has not indicated that it does not wish for a junction to be maintained in this location. In the absence of any instruction to the contrary, Highways England is bound to maintain a connection to The Avenue. The new Local Access Road would</p>

Question 2.12.4 Notwithstanding the fact that the full closure of The Avenue to through traffic is not part of the A14 scheme, is the increased connectivity between The Avenue and the Local Access Road part of the scheme? (REP2-013, para29)

		<p>be a two-way single carriageway road. Consequently, the junction with The Avenue permits all turning movements directly (rather than some indirect movements as at the moment) and the consequence of this is the increased connectivity described. The scheme does not, however, preclude future works to the junction to prevent certain manoeuvres or the introduction of turning restrictions, should the Local Highway Authority identify the need for this in the future.</p>
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Table 2-53: Transportation and traffic, question 2.12.8

Question 2.12.8 What would be the dis-benefits of maintaining the left turn only nature of the junction between The Avenue and the new Local Access Road? (REP2-013, para217)

Interested Party	Written Representation	Highways England Comments
Cambridgeshire County Council	<p><i>"The County Council considers that retaining the current left in/left out only reflects the current position. The dis-benefits would only be that there would be a loss of added convenience of access to the LAR towards Cambridge for local people. Retaining the existing left in/left out would be acceptable to the County Council as long as it was acceptable to the local communities concerned."</i></p>	<p>As set out in paragraph 57 of Highways England's <i>Response to ExA's Second Written Questions: Principal Issue 12 Transportation and Traffic</i> (Applicant reference HE\A14\EX\89, PINS reference REP7-024), restricting the junction of The Avenue and the new Local Access Road to left in-left out operation would result in a number of dis-benefits in comparison to the proposed scheme (with a full-movements junction), including:</p> <ul style="list-style-type: none"> • increased distance travelled and journey times for the majority of drivers due to the lack of a direct access on to the A14 westbound; • increased rat running through surrounding villages, in particular Dry Drayton;

Question 2.12.8 What would be the dis-benefits of maintaining the left turn only nature of the junction between The Avenue and the new Local Access Road? (REP2-013, para217)

		<ul style="list-style-type: none"> • potentially increased congestion at Bar Hill junction due to additional traffic from Madingley using this junction to join the A14 westbound; • potentially encouraging dangerous U-turn manoeuvres on the new Local Access Road by traffic wishing to access the A14 westbound or the A1307 Huntingdon Road via the Girton interchange; and • increased noise and emissions due to increased vehicle kilometres associated with the above traffic diversions.
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