

**Open Report on behalf of Andy Gutherson, Executive Director for Place**

Report to:	<b>Planning and Regulation Committee</b>
Date:	<b>02 March 2020</b>
Subject:	<b>Crowland - Proposed Experimental Traffic Order to prohibit traffic movements : A16/B1166 Radar Junction, A16/B1040 junction, and A16 southbound layby.</b>

**Summary:**

This report outlines proposals to impose a number of restrictions on the movement of traffic at the above junctions, with the intention of implementing them on a trial basis by way of an experimental traffic regulation order.

**Recommendation(s):**

That the committee considers the advantages and disadvantages of introducing the restrictions proposed and decides on an appropriate course of action:

Pursue the experimental order and introduce the scheme for an initial period of six months to test its impact on collision data.

Abandon the order on account of the potential impact on surrounding communities.

Defer the order pending further information.

**Background**

1.1 The A16 Crowland bypass opened in 2010 and carries an average of 15500 vehicles per day, subject to the national speed limit. Appendix A shows the locations of the intersections with both the B1166 James Road and Hull's Drove – known as Radar Junction, and the B1040 Thorney Road and Nene Terrace Road. These have been designed to accommodate all traffic movements and to allow large agricultural vehicles to wait within the central area. Their design complies with national standards set out for a 'single lane dualling' staggered junction layout and is shown at Appendices B and C.

1.2 Over time a number of collisions have occurred at these junctions, in particular at Radar Junction and in response to this road markings were enhanced by the addition of hatchings and coloured surfacing in 2014 to aid navigation across

the A16 and improve safety for right turn manoeuvres. Also around this time vehicle activated signs warning traffic to slow down in the vicinity of the junction were installed on both A16 approaches. In 2016 average speed cameras were introduced over a 6.5 mile stretch to include these junctions and maintain the speed of traffic at 60mph.

- 1.3 The number of personal injury accidents recorded at Radar junction since the route was opened is 21, of which three have resulted in a fatality, and four were classed as serious. All but five occurred during a right turn or cross over manoeuvre. The number recorded at the junction of the A16 and B1040 is 14 of which none resulted in a fatality but four were serious.
- 1.4 The Lincolnshire Road Safety Partnership maintains collision records which enables prioritisation of sites for the delivery of highway safety schemes throughout the county. In 2018 Radar Junction ranked 46th on this list but following the introduction of the measures outlined above, the number of collisions has reduced in the last 5 years and as a result this location's ranking has fallen.

### **Option Feasibility Study**

- 1.5 In response to the severity of collisions at Radar Junction an Option Feasibility Study was commissioned to identify measures to improve safety at this location. Published in 2018 it provided a detailed analysis of the accident data and considered a number of options.
- 1.6 The two main contributory factors in the occurrence of collisions were identified as relating to driver behaviour: failure to observe vehicles approaching on the A16 and misjudgement of their speed. Excess speed was not identified as a factor. By the end of 2017 approximately half the collisions involved right turn manoeuvres either to access or leave the A16 and a third occurred during attempts to cross the junction. The study considered the investment value relating to four options and concluded that a four armed roundabout would be the scheme most likely to reduce the incidence of collisions severe in nature.
- 1.7 Ongoing concerns relating to conditions at Radar Junction has prompted further consideration of the options put forward. Although the construction of a roundabout was recommended as the preferred intervention method the preliminary estimate for its delivery at that time was in excess of £2million. Clearly if further work was done to pursue this as an option, this figure would need to be refined and is likely to increase. In the absence of available funding for this improvement the Capital Programmes Steering Group agreed that an alternative option identified in the study could be installed for a trial period. This option promotes a 'left in/left out' only arrangement, removing all right turn and cross over manoeuvres at the junction. To mitigate the impact of this however it was decided to maintain the right turn from the A16 into Hull's Drove.
- 1.8 It is anticipated that the restrictions proposed at this junction will result in an increase in traffic flow on the B1040 further south, and since this junction is of the same design an increase in the number and severity of personal injury

collisions could result. This being the case it has been decided to introduce the same restrictions on traffic flow at this junction for the duration of the experiment, maintaining the right turn for northbound A16 traffic into Nene Terrace Road only.

1.9 A traffic regulation order will be required to legally restrict traffic movements at these two junctions. This is proposed as shown at Appendices D and E and will bring into effect :

- A16/B1166 Radar Junction – restriction on straight over movements through the junction, right turns out of James Road and Hulls Drove and right turns into James Road off the A16. Right turns into Hull's Drove off the A16 northbound will be permitted.
- A16/B1040 – restriction on straight over movements through the junction, right turns out of the B1040 on to the A16 from both approaches and right turn into the B1040 off the A16 southbound. Right turns into the B1040 Nene Terrace Road off the A16 northbound will be permitted.
- 'No U turn' restrictions to apply from the following junctions:
  - A16/B1166 (James Rd) northbound for 120yds
  - A16/B1166 (Hull's Drove) southbound for 150yds
  - A16/B1040 (Thorney Road) northbound for 170yds
  - A16/B1040 (Nene Terrace Road) southbound for 170yds
- Prohibition of driving order to apply within the layby on the southbound carriageway of the A16, approximately 400m to the south of Radar Junction (to discourage 'U' turn manoeuvres).

These restrictions will be introduced on site using a temporary barrier system to restrict and guide traffic flow.

1.10 An experimental traffic order is proposed as this will provide a means of monitoring and assessing the restrictions without committing to a permanent order. This type of order may be introduced following a short advertisement period and whilst we are under no obligation to carry out a consultation exercise at this point, this has been carried out owing to the nature of the restrictions proposed. The order can remain in place for a maximum of 18 months but can also be removed at short notice should issues arise. Ideally it should remain in place for a reasonable period of time to test its effectiveness adequately so the order must remain in place for a minimum of 6 months before objections to it may be considered by this committee. Should this result in amendments to the proposals they must remain in place for another 6 months before further objections can be reported. At this point there may be a recommendation to abandon the trial if the desired results have not materialised, or if it has been effective, the order can be made permanent after the objections raised have been considered.

1.11 The estimated cost of the trial is £78,000, which includes monitoring of the scheme. This will involve queue length surveys on the A16 roundabout to the south before and during the trial, and camera observation of driver behaviours at the restricted junctions.

## Objections

- 1.12 A public consultation for these proposals took place last December. The views of local councillors, District and Parish Councils, emergency services, bus companies and organisations representing farmers and local business interest were sought.
- 1.13 A total of 66 objections have been received from residents, farmers and businesses in the area, including Crowland Parish Council. Concerns are raised by all regarding the additional fuel costs, inconvenience and loss of time which would be incurred should the proposals be implemented. The view is that the restrictions do not take into consideration how local people use the road network and that the significant impact they will have has not been acknowledged. Traffic and large vehicles will be forced to use alternative, unsuitable routes resulting in negative impact on nearby communities and damage to already deteriorating roads. More slow moving traffic will use the A16 causing delay and leading to driver frustration and an increase in high risk overtaking manoeuvres. This, in addition to the 'U' turns some drivers may attempt, will increase the potential for collisions. It will exacerbate congestion at the roundabout to the south of Crowland and there are concerns with regard to an increase in pollution and the effect on the environment.
- 1.14 Representations from local farmers echo these points and raise concerns that the proposals will have a serious impact on farming operations, particularly during harvest time. Access to Decoy Farm waste processing plant will be affected and the increase in costs to industrial activity as a consequence of the proposal will be detrimental to employment in the area.
- 1.15 Many of the points raised are endorsed in the response received from Crowland Parish Council who believe that reduced connectivity to the wider network will be a consequence of the proposals. This will isolate the town and affect access to its school, amenities and businesses, and be detrimental to their community as a whole.
- 1.16 The District Council reiterates the points made by the Parish Council and believes the impact of displaced traffic will be detrimental to the village of Cowbit to the north. Also of concern is the impact on land at Crease Drove in Crowland which is allocated to employment in the Local Plan and may be devalued if access to these sites is compromised.
- 1.17 Many objectors maintain that a roundabout should be installed as recommended by the Option Feasibility Study. In the absence of funding for this improvement reference is made to a number of alternative solutions to improve safety at this junction such as the introduction of a speed limit, a review of the signage and road markings, and for consideration to be given to a traffic signal installation giving priority to the main flow. Several responses make the point that both junctions can be negotiated safely if drivers exercise patience and more care when using them.

## Comments

- 1.18 Most of the concerns raised by objectors were cited within the Option Feasibility Study as potential disadvantages of a scheme where a restriction on traffic movements at Radar Junction is imposed. The study recognised the increase in journey times and cost which would be incurred, as well as the displacement of traffic to alternative routes increasing delay and raising the risk of collisions elsewhere on the A16 and the surrounding network. However it is clear that the proposal would eliminate all but one of the collisions at this location which have occurred involving right turn and crossover manoeuvres since 2011, a total of 15. The 2018 Option Feasibility Study concluded that the option to restrict all right turn and crossover movements at Radar Junction provided by far the highest first year rate of return.
- 1.19 Requests for a traffic signal installation are noted. However this option was not considered in the study on the grounds of safety and efficiency. The road is high speed and has terminal roundabouts so installing signals would change the nature of the road and would not be expected by drivers in this location. Between Boston and Peterborough (28 miles) there are no signals on the A16, only roundabouts at major junctions. If signals were installed, the speed limit would need to be reduced to 50mph thereby reducing the benefits of the new road. Signals would interfere with the free flow of traffic more than would be the case with a roundabout.
- 1.20 There have been a number of interventions at the junction including road marking enhancement, installation of speed cameras and vehicle activated signage. It is considered that there is little to be gained from additional works of this type as the measures in place adequately inform of the presence of the junction and additional signage would serve only to add to driver distraction.
- 1.21 A number of objectors have requested a reduction of the speed limit to slow traffic on the approach to Radar Junction. A system of speed cameras is in place to maintain the 60mph speed limit but an investigation into a reduction to 50mph may be possible. This will be subject to the criteria set out in the Council's speed limit policy being met, and that the extent of any limit will be compatible with the speed camera equipment sites. It should be borne in mind however that excess speed has not been found to be a contributory factor in the collisions which have occurred here.

## Conclusion

- 2.1 The aim of the proposed restrictions on traffic movements at Radar Junction is to reduce the number and severity of personal injury collisions which have occurred here. Analysis of the accident data since 2011 suggests that there has been a slight reduction in the total number of personal injury collisions, and in the proportion of these with fatal or serious outcomes. This suggests that the interventions of enhanced road markings, vehicle activated signage and speed cameras may have had limited effect. Funding for the construction of a roundabout to address the issue is not available so an alternative proposal has

been identified as an affordable solution, which can initially be tested by introducing it for a trial period.

2.2 However the overwhelming response from objectors to the scheme is that the impact on residents and businesses in Crowland and the surrounding communities will be onerous in terms of inconvenience, severance and cost. This will be compounded by the similar restrictions to be applied at the A16/B1040 junction, as two of the three links between Crowland and the A16 will be compromised.

2.3 An estimate of the costs associated with the trial amounts to £78,000 and the anticipated reduction in collisions provided by the scheme will likely give a high rate of return. There are concerns however that the scheme will lead to a potential rise in collisions elsewhere on the network and on the A16.

2.4 Should the experiment be approved it is advised that it remains in place for at least six months to enable adequate monitoring of its effects and to accurately gauge its benefits and disbenefits. After this period objections to the scheme can be reported to this committee for this consideration.

## **Consultations**

The following were consulted on these proposals in December: Cllr N Pepper; MP Sir John Hayes;

District Cllrs B Alcock, J Astill, A Beal and P Redgate; Peterborough City Cllrs: S Allen, R Brown and N Simons;

Police; EMAS; Lincolnshire Fire & Rescue; Parish Councils: Crowland, Whaplode, Holbeach, Gedney Hill and Cowbit

SHDC; FTA; RHA; Stagecoach East; LCC school transport; NFU East Midlands; Agricultural Industries Confederation;

Lincolnshire Chamber of Commerce; Federation of Small Businesses.

## **Consultation**

**a) Have Risks and Impact Analysis been carried out??**

**b) Risks and Impact Analysis**

## Appendices

These are listed below and attached at the back of the report	
Appendix A	Location Plan
Appendix B	Crowland, Radar Junction A16/B1166 - exisiting layout
Appendix C	Crowland A16/B1040 - exisiting layout
Appendix D	Crowland A16/B1166 Radar Junction and layby 400m further south Proposed experimental traffic order to prohibit traffic movements
Appendix E	Crowland A16/B1040 Junction - Proposed experimental traffic order to prohibit traffic movements

## Background Papers

Document title	Where the document can be viewed
Option Feasibility Study 2018	Executive Director-Place
Copies of objections	Executive Director-Place

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