

TONBRIDGE & MALLING BOROUGH COUNCIL

JOINT TRANSPORTATION BOARD

29 November 2010

Report of the Head of Countywide Improvements

Part 1- Public

Matters For Decision

1 A228 LEYBOURNE AND WEST MALLING BYPASS, CASTLE WAY AND M20 JUNCTION 4

Summary

This report provides an update since the last meeting of this Board on 20 September 2010. It debates further issues raised for the junction of Castle Way north with the A228, and for the junction of Castle Way south with the A20, and seeks the support of the Board on the way forward.

1.1 Background

- 1.1.1 The report to this Board on 20 September 2010 identified a list of work proposals that would provide both operational and safety improvements along the A228 Bypass and at M20 Junction 4. Approval to those works was subsequently granted.
- 1.1.2 At the Board meeting, concern was expressed regarding lane discipline by motorists exiting Castle Way north. A site meeting was subsequently arranged with the local Member for the Borough Council, the project manager and a Jacobs' design specialist, to review those concerns.

1.2 Update on the Approved Works Proposals

- 1.2.1 Following approval by the Board, a design package of work required has been completed by Jacobs. This package has also been audited to ensure that the details are thorough and accurate for pricing purposes. This is to ensure more accurate pricing and to avoid delays that are caused by contractor queries. The package is now with Ringway for pricing and, subject to market testing to ensure 'best value', the works will be instructed at the earliest opportunity.

1.3 Castle Way North Junction with the A228

- 1.3.1 At the site meeting held on 28 September 2010, the problem being reviewed related to some motorists intentionally choosing the wrong lane to exit Castle Way and thus create conflict further ahead where the A228 joins Junction 4. It is fundamentally a case of bad lane discipline.

- 1.3.2 Suggestions were made to make the nearside lane left turn only and to cross hatch the lane further ahead where it crosses the two central reserve islands. Also to provide realigned lane markings to better direct motorists.
- 1.3.3 It was observed that there were high incidences of red light violation at this location.
- 1.3.4 Jacobs' safety audit team were consulted on the proposal and it was advised that lining alone would not be acceptable in safety terms. The only way to resolve this issue would be to physically alter the junction however, the cost of these alterations could not be justified in terms of safety benefit.
- 1.3.5 It was also pointed out that a single lane serving four lanes would increase the number of late lane changes and give potential for more crashes.

1.4 Discussion

- 1.4.1 It has been suggested that a low cost way of reducing the use of this junction would be to re-phase the signals and introduce a longer red time for drivers wishing to enter or exit Castle Way, possibly by missing a cycle.
- 1.4.2 It is possible to introduce a delay for traffic leaving Castle Way and this can be achieved relatively cheaply with changes made to the controller configuration. This would need road signs warning drivers of the changes and it would need to be monitored closely to ensure impatient drivers do not violate the red traffic signal. Missing a cycle would be a slightly unusual method of operation which may confuse drivers and introduce risk.
- 1.4.3 Restricting those wishing to turn into Castle Way north is much harder and could have adverse safety effects by over loading the stacking lane provided for left turning traffic from Junction 4. Restricting left turning traffic from the M20 London bound off slip would exacerbate the queue lengths onto the motorway.
- 1.4.4 There has also been concern raised about the 'green wave' enjoyed by motorists leaving Castle Way, but this is not deliberate. The important thing is to achieve safe operation and not compromise traffic movements to and from Junction 4. It is therefore important for Castle Way traffic to move into empty lanes and not block back across the bypass.

1.5 Conclusion for Castle Way North Junction

- 1.5.1 Proposals to physically reduce the central reserve crossing to a single lane are not being pursued because it would not necessarily improve safety overall and for cost reasons as well. In addition such a change would adversely impact upon traffic signal positions.
- 1.5.2 Jacobs Traffic Systems are now looking at other ideas to simplify the operation of this junction, by reducing the number of stages from 3 to 2. This will require a new

controller configuration but would be at a relatively low cost of around £1,000 and funded from the traffic signals strengthening and protection budget.

- 1.5.3 The revised stage 1 would be with the M20 East off slip plus the bypass north and south on green, while movements into and out of Castle Way are on red. Stage 2 would be the reverse of that sequence. This is designed to simplify the operation and allow better coordination with the Junction 4 signals. It should also reduce the M20 East off slip queue because this will be on red for a shorter time.

1.6 Castle Way South Junction with the A20

- 1.6.1 For traffic leaving Castle Way South, the road widens to three lanes locally. Queues would be increased by reducing to 2 or even 1 lane. The controller configuration could be changed to give only one green every other cycle at reasonably low cost. On the negative side these carriageway alterations have already been previously rejected due to costs in the order of £25,000.
- 1.6.2 For traffic entering Castle Way South, not much can be done for traffic turning from the A20 west but the A20 east could be separately signalled and only given a single green every two cycles. The ahead and left movements would be unaffected. This could be achieved with a simple change of controller configuration, but it has been noted that positioning the signal poles and heads to control these movements would be harder to achieve safely and will require more careful consideration.

1.7 Conclusions for Castle Way South Junction with the A20

- 1.7.1 Although this junction is of less concern in safety terms, it does contribute to the through traffic along Castle Way and therefore impacts upon the volume of traffic using the Castle Way North junction.
- 1.7.2 Jacobs Traffic Systems are looking to see whether there are any overriding difficulties in positioning the signal poles and heads and achieving lane reductions by hatching rather than expensive physical changes.

1.8 Summary

- 1.8.1 There is a desire to improve the safety at the Castle Way North Junction with the A228, and it is considered that restricting the frequency of traffic movements at this junction may contribute to its overall safety.
- 1.8.2 To also restrict the frequency of traffic movements into and out of the Castle Way South Junction will contribute to reducing traffic flow to and from Castle Way North Junction with the A228.
- 1.8.3 The additional delays for motorists turning into and out of Castle Way will adversely impact upon those with a legitimate desire to access the village.

1.8.4 It is proposed that, subject to the views of this Board, Jacobs complete the further work with the aim of using traffic signal configuration to discourage through traffic from using Castle Way and for this to be added to the agreed package of work, subject to affordability.

1.9 Legal Implications

1.9.1 Not applicable.

1.10 Financial and Value for Money Considerations

1.10.1 As described in the report.

1.11 Risk Assessment

1.11.1 As described in the report.

1.12 Recommendation

1.12.1 That the principle of adjusting the signals at each end of Castle Way as described in the report **BE ENDORSED** and that, subject to availability of funding, the works **BE IMPLEMENTED**.

Background papers:

Nil

contact: Geoff Cripps

Tel: 01622 696880

Behdad Haratbar

Head of Countywide Improvements