RAYLEIGH TOWN CENTRE

1 SUMMARY

1.1 This report provides details of the conclusions of the Rayleigh Traffic Study Sub-Committee in respect of traffic movements in the Town Centre.

2 INTRODUCTION

2.1 The Rayleigh Traffic Study Sub-Committee was set up to consider options for improvement in traffic flow within the Town Centre.

2.2 A detailed analysis of Town Centre traffic has been completed and options for improvements carefully examined. In considering options, the Sub-Committee has taken account of a wide range of comments from the public and key organisations. County Highways and their consultants, Mouchel, have provided specialist input and analysis.

3 ISSUES EXAMINED

3.1 Two major studies have been carried out by Mouchel to analyse traffic flows in the Town Centre and to assess options for improvement.

Study 1

3.2 The first study prepared by Mouchel sought to find ways of controlling and quickly dissipating queues on internal links, so as to improve the general traffic environment in Rayleigh Town Centre. Whilst, many people drive to Rayleigh town centre to work and shop, a significant proportion of the traffic is actually passing through the town centre to other destinations.

3.3 Seven options were considered:

1. Full signalisation of Church Street Junction only.
2. Signals with no pedestrian stage; maintain pelican crossing on High Street between Crown Hill and Eastwood Road.
3. Signals with pedestrian stage; no pelican crossings.
4. Signals with pedestrian stage, no pelican crossings; add short turning lanes.
5. Signals with parallel pedestrian stage, plus turning lanes and pelican crossing on High Street between Crown Hill and Eastwood Road.
6. (Preferred option) Signals with separate pedestrian stage; additional turning lanes; no pelican crossing; full signals at Church Street.
7. As in the Preferred Option; with one-way flow on Webster's Way.

3.4 The study assessed the impact of each option on roads, and in particular on the junctions within the Town Centre in respect of traffic flows, delays, queues, and traffic saturation (a measure of capacity).

3.5 The consultants concluded that Option 6 had the potential to provide:

- some reduction in delays
- reduced queue lengths within the Town Centre
- ability to better control traffic approaching the Town Centre
- ability to keep queues outside the Town Centre

3.6 The study sought to quantify the benefits or otherwise of the various options. The analysis also looked at the impact of changing Websters Way back to one-way traffic.

3.7 Comparing the average delay per vehicle at the a.m. and p.m. peaks for the key junctions, the study concluded that for the preferred option there would be a 12% (a.m.) and an 8% (p.m.) improvement overall in the delays measured in seconds. With one-way traffic in Websters Way, there would be a 12% improvement in the a.m. peak, but the delays in the p.m. peak would be worsened by 38%.

3.8 In terms of the average number of vehicle in queues at the a.m. and p.m. peak there would be some improvements, reflecting the slight reduction in queuing time. With Websters Way operating one-way there would be a very slight improvement, except that the queues at Crown Hill would nearly double in size.

3.9 Finally, the study looked at the degree of traffic saturation. This is a measure of the overall capacity of the system to move traffic and it is generally accepted that at a measure of 85%, a system will have reached its design capacity.

3.10 Despite the slight improvements that might be possible by implementing the preferred option, the figures for degree of saturation show that most streets in the Town would remain at or above the 85% figure.

3.11 The projected costs of the changes proposed under option 6 were estimated at in excess of £400,000.

Study 2

3.12 This second study was more specifically focussed on an examination of improvements to the top of the High Street and the Church Street junction in particular.

3.13 The Consultants concluded that changes, including further signalisation, could be made to the junction, but there would only be small improvements to traffic flows. The cost of the works would be in excess of £100,000.

4 CONSULTATIONS

4.1 The Sub-Committee canvassed widely for views on the traffic system in the Town Centre. Formal consultation letters were sent to Rayleigh Town Council, Rayleigh Civic Society, Taxi Companies, Fire Service, Ambulance Service, Police, Arriva and the Chamber of Trade.

4.2 The responses received to the formal consultation and from residents and town centre users provided no consensus about the traffic system. The views expressed ranged from no change to the current system to substantial changes to junctions and full signalisation. In the middle, many suggestions were made about more modest changes to improve traffic flow and reduce queuing.

4.3 Whilst it is not possible to list every suggestion in this report, some of the key issues raised or changes suggested were:

- two-way traffic in the High Street
- traffic lights at all pedestrian crossings
- more guard rails
- widen the High Street next to the Half Moon Public House
- changes to the pedestrian crossing at Crown Hill to improve traffic flows
- signalisation of London Hill/Church Street junction
- re-design access and egress to Websters Way Car Park
- adjustments to configuration of Eastwood Road/Websters Way and Eastwood Road/High Street junctions
- turn the High Street into a pedestrian area
- make Websters Way one-way
- too many cars and too little road space - no real solution
- ban on HGV's entering the High Street
- installation of pedestrian underpasses
- the High Street is now a pleasant place for pedestrians.

5 DISCUSSION

5.1 In examining options for improvements in traffic flows in the Town Centre, the Sub-Committee assessed the benefits of changes against the costs of implementation.

5.2 The main study produced by the Consultants looked at the Town Centre as a whole and assessed the implications on a number of changes. The preferred option (No.6) did show marginal benefits with a reduction in delays at some junctions, although at others, the situation worsened.

5.3 In overall terms, the preferred option of the Consultants would result in the ability to better control queuing, although instead of queues occurring within

the Town Centre, they would be moved beyond the centre behind the traffic lights.

5.4 Whilst the study was able to demonstrate some improvement in delays and queuing, accepting that not all junctions would benefit, it was also clear that the Town Centre has reached its capacity and that changes would not have any significant impact on saturation levels. In effect, the preferred option would provide better control over queues, but would not change the fundamental fact that the road network reaches capacity in the town during the morning and evening peaks.

5.5 The study also considered the re-introduction of one-way traffic in Websters Way in conjunction with Option 6, but concluded that the impact, particularly on Crown Hill, would not be acceptable.

5.6 The Consultants estimated the cost of implementing Option 6 as in excess of £400,000. However, in further discussions, the Sub-Committee was advised the costs could be more than £500,000.

5.7 Taking into account the estimated costs and the possible benefits, the Sub-Committee concluded that there was no substantive justification for any wholesale changes to the current system. Whilst there could be some slight benefits, particularly in the ability to control queues, the costs did not justify the changes.

5.8 The Sub-Committee was concerned in reaching this conclusion that many comments had been made about the Church Street/High Street junction. Accordingly, the Consultants were requested to carry out a second more limited examination of the northern end of the High Street.

In assessing the Consultant's findings, the Sub-Committee concluded that:

- improvements in one part of the Town Centre were likely to result in a worsened situation elsewhere
- there were positive aspects to the current arrangements - a pedestrian friendly High Street for example
- adjustments to the network could encourage more traffic to the Town Centre or promote more rat-running.

5.9 Taking account of the Consultant's report and the cost of changes to the Church Street junction, the Sub-Committee concluded that no changes should be recommended to the current configuration.

5.10 However, in reaching this conclusion, the Sub-Committee nevertheless thought that some minor improvements should be considered, namely:-

- a box junction at the North end of the High Street
- the provision of a 'filter in turn' sign; and

- an extension of the railings at the top of Crown Hill to the edge of the pedestrian crossing.

5.11 At the time of drafting the report, a definitive answer was not available regarding the provision of a box junction. An update on this issue will be provided at the meeting.

5.12 In respect of a 'filter in turn' sign, County Highways has advised this is not an authorised sign and they could not support its provision unless authorised by the Department of Transport.

5.13 A safety audit has been carried out on the proposed extension of the guard rail at the top of Crown Hill. Whilst the width of the pavement next to the Crown Public House would be reduced to below standard, County Highways is supportive of this proposal. If Members agree to the provision of an additional guard rail, the scheme could be included in the Locally Determined Programme for 2004/05.

5.14 In conclusion, a broad series of options for adjustments to traffic arrangements in the Town Centre have been examined by the Sub-Committee. In addition, a further investigation has been carried out to assess options for changing the Church Street/High Street junction.

5.15 Whilst some improvements can be found by implementing a scheme of full signalisation (Option 6), the Sub-Committee has concluded that the costs of making such changes cannot be justified.

5.16 Therefore, the Sub-Committee recommends that no major changes be made to the arrangements for traffic circulation in Rayleigh Town Centre.

5.17 However, as explained, the Sub-Committee requested further examination of three further options. The provision of a 'filter in turn' sign at the top of the High Street is not acceptable to the Highway Authority. The extension of the guard rails at the top of Crown Hill is though acceptable and it is proposed that this scheme be part of the Locally Determined Programme for 2004/05.

5.18 The final minor proposal related to the provision of a box junction at the top of the High Street. Information is not yet available as to the acceptability of this proposal, but if a box junction is found to pass the safety audit tests, it is suggested that this is also part of next year's Locally Determined Programme.

6. ENVIRONMENTAL IMPLICATIONS

6.1 The movement of traffic through the Town Centre does have an impact on the appearance and character, but most importantly, on the environment for pedestrians. Therefore, the balance between the use of the town by vehicles and by pedestrians is crucial to the overall vitality and viability of the centre.

7. RESOURCE IMPLICATIONS

7.1 The Sub-Committee concluded that the cost of changes to the current traffic arrangements would not be justified in relation to the minor improvements that would result.

7.2 Minor changes (guard rail and box junction) can be funded as part of the Locally Determined Programme for 2004/05. The Local Programme will be Presented to Members for agreement in due course.

8 RECOMMENDATION

8.1 It is proposed that the Committee **RECOMMENDS:-**

(1) That the existing traffic arrangements in Rayleigh Town Centre remain unchanged

(2) That a scheme for new guard rail at Crown Hill and a box junction at the junction of High Street/Websters Way be included in the Locally Determined Programme for 2004/05.

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Background Papers: None

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