

AGENDA MANAGEMENT SHEET

Name of Committee	Warwick Area Committee
Date of Committee	22 January 2008
Report Title	Warwick Town Centre Traffic Management Review - Progress Report
Summary	This report describes the progress to date in developing schemes to manage traffic in Warwick. Much of this work has been carried out by the Forum which was established by this Committee in November 2005. The support of Committee is sought for continued work on the development and assessment of the Forum's proposed schemes. The report also discusses a consultant's report into a range of possible complementary measures, which, taken in combination, could help deliver the Forum's Vision for Warwick.
For further information please contact	Shirley Reynolds Team Leader - Highways and Transportation Studies Tel. 01926 735668 shirleyreynolds@warwickshire.gov.uk
Would the recommended decision be contrary to the Budget and Policy Framework?	Yes/No
Background Papers	'Street by street' proposals developed by the Warwick Forum.

CONSULTATION ALREADY UNDERTAKEN:-*Details to be specified*

Other Committees	<input checked="" type="checkbox"/> Cabinet approved the use of developer funding on the "interim" traffic management schemes at its meeting on 28 April 2005 when approving the Capital Programme for Transport 2005-06. Warwick Area Committee 23 November 2004, 22 November 2005, 16 May 2006, 10 July 2007 Regulatory Committee 1 February 2006.
------------------	--

Local Member(s)
(With brief comments, if appropriate)

Councillor K Browne
Councillor Mrs M Haywood
Councillor R Randev

Other Elected Members

.....

Cabinet Member
(Reports to The Cabinet, to be cleared with appropriate Cabinet Member)

.....

Chief Executive

.....

Legal

I Marriott – agreed.

Finance

.....

Other Chief Officers

.....

District Councils

.....

Health Authority

.....

Police

.....

Other Bodies/Individuals

Warwick Forum.

FINAL DECISION

YES/NO (If 'No' complete Suggested Next Steps)

SUGGESTED NEXT STEPS :

Details to be specified

Further consideration by this Committee

A programme of schemes to be implemented will be reported to a future meeting of this Committee. Also, the outcome of discussions with the local Members and the Environment Portfolio Holder on various complementary measures will be reported to a future meeting of this Committee.

To Council

.....

To Cabinet

Request for funding for the design and implementation of the initial phase of the 'street by street' schemes.

To an O & S Committee

To an Area Committee

Further Consultation

Further public consultation will be required on the detail of schemes.

Warwick Area Committee - 22 January 2008

Warwick Town Centre Traffic Management Review - Progress Report

Report of the Interim Strategic Director for Environment and Economy

Recommendation

That Committee supports:-

1. The continuing work of the Warwick Forum.
2. The continuing work of officers in assessing the 'street by street' proposals.
3. The implementation of a one-way system on Chapel Street.
4. Further investigation into the removal of the A429 in Warwick from the Primary Route Network.

1. Introduction

1.1 At its meeting on 10 July 2007, this Committee considered a report regarding the progress being made by the Warwick Forum on developing a range of proposals to "*To make Warwick's historic centre safer, easier and more pleasurable to live in, to work in, and to visit, now and in the future*". This Committee resolved:-

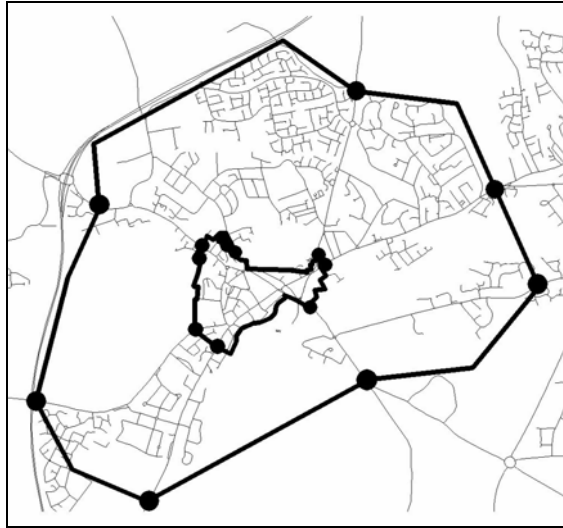
- (i) That the Warwick Area Committee comments be noted.
- (ii) That the Warwick Area Committee approves the commissioning of a report into the effectiveness of the chosen package of measures, their funding and the timetable for their implementation and that such report be brought back to the Committee in six months.
- (iii) That the Warwick Area Committee endorses the commitment of resources to design and implement an initial phase of the Forum's proposed 'street by street' schemes.
- (iv) That the Warwick Area Committee supports the continuing work of the Forum.

1.2 Since the last report, the following tasks have been completed:-

- (i) 'Street by Street' proposals have been drawn up for most of the Town Centre.
 - (ii) Cost estimates have been prepared for these proposals.
 - (iii) The Warwick Forum has met to consider priorities for implementation.
 - (iv) A report has been prepared by consultants on the options of either using traffic signals to regulate the flow of traffic into the town (gating), or the introduction of road user charging, as a complementary measure to achieve a reduction in through traffic in Warwick.
- 1.3 Outstanding actions include the use of the Warwick PARAMICS Microsimulation model to assess the effectiveness of the proposals, the completion of equality and diversity assessments, and the completion of the 'street by street' proposals for the following locations:-
- (i) Friars Street, Hampton Street, Saltisford and Priory Road.
 - (ii) Eastgate, Northgate, Castle Hill, St Johns and Saltisford.

2. The Warwick Forum

- 2.1 The whole Warwick Forum met for the sixth time on 19 November 2007 to consider how their objectives and principles could be turned into meaningful measures and proposals. For the first time they were able to view the 'street by street' proposals together and gave their support to them. The Forum confirmed that the principal issues are:-
- (i) Safety, including reducing the speed of traffic – Safety aspects will be assessed through the Safety Audit process. The Forum also wish to see the introduction of a 20 mph zone across the Town Centre.
 - (ii) Air Quality – High Street and Jury Street currently form an Air Quality Management Area which exceeds the standards for nitrogen dioxide, and Warwick District Council is consulting on an extension to include sections of Saltisford, Theatre Street, Bowling Green Street, West Street, St Nicholas Church Street, Smith Street and The Butts. Traffic is the main source of the air pollution on these routes and work by Warwick District Council indicates that a reduction in traffic flows is required to meet the standard for nitrogen dioxide concentrations.
 - (iii) Discouraging through traffic – In the report to this Committee presented on 10 July 2007, the Forum's Technical Group reported that 76% of the total traffic entering the Town Centre (the inner cordon) in a six hour period is passing through, including 23% which has an origin and a destination outside the outer cordon.



- (iv) Urban design – Warwick is a historic town and the materials to be used should be in keeping, plus opportunities should be taken to minimise street clutter. The Forum includes representatives from Warwick District Council's Conservation and Design Team, plus representatives from disability groups such as the Guide Dogs for the Blind and the Disabled Drivers Association, who will be able to provide valuable advice throughout the process.

2.2 The Forum have proposed a priority action list for achieving the objectives of the Traffic Management Review:-

- (i) Chapel Street to become one-way northbound. This will stop rat-running along Chapel Street and Gerrard Street, thus allowing traffic in St Nicholas Church Street to exit in the gaps in traffic on Castle Hill from the traffic signals at Eastgate.
- (ii) Changes to the operation of the traffic signals at St Johns junction to manage the inflow into St Nicholas Church Street and reduce the blocking of the St Johns junction.
- (iii) The introduction of a 20mph zone in the Town Centre, including Hampton Street and Friar Street (see **Appendix A**).
- (iv) The removal of the A429 through Warwick from the national Primary Route Network.

3. 'Street by Street' Measures

3.1 The 'street by street' measures have been drawn up by residents in a series of round table discussions facilitated by members of the Forum's Technical Group. Therefore, a high degree of consistency has been achieved in the type of measures which are being proposed for further consideration. Some notable common features are:-

- (i) Informal crossings on the main pedestrian desire lines, some of which may be raised to footway level;

- (ii) Wider footways were possible, and new footways where none exist.
- (iii) Traffic calming features every 60m to 80m to promote a self-enforcing 20mph zone, including:-
 - (a) Kerb build outs at some junctions and along some stretches of road to slow traffic;
 - (b) Parking places on alternating sides of the road to produce a 'chicane' effect;
 - (c) Raised tables at some junctions.

3.2 These proposals have not yet been assessed by Safety Audit, by the team responsible for traffic signals, or through modelling of the changes of traffic flow. However, an indicative cost estimate has been prepared by Design Services Group to take into account basic materials and labour costs using the rates specified in the LTP contract. A factor has then been applied to account for design costs, consultation and Traffic orders, specialist materials, temporary traffic management, service diversions and contingencies. The indicative cost estimate is £1.5 million. A more refined cost estimate can only be produced once all the 'street by street' proposals have been finalised and when detailed design work is undertaken.

4. Funding

4.1 The Section 106 developer funding available from the South West Warwick development is £3.5 million. Of this, £1.1 million has been committed to the 'interim' schemes, ie the Warwick Bus Interchange, the Puffin crossing on Friar Street, the cycleway between Warwick and Warwick Technology Park and the Car Park Management Signing.

4.2 As stated above, the estimated cost of the 'street by street' proposals is £1.5 million. Therefore, approximately £2.6 million would be needed to deliver the interim and 'street by street' proposals.

4.3 However, it is not certain when additional funds will become available from the S106 contributions as further development on site is dependent on the need to satisfy various planning conditions. A total of £666k has already been received and a bid has been made for temporary prudential borrowing to address the shortfall in the commitment to the Warwick Bus Interchange to facilitate delivery of the scheme in 2008.

5. Complementary Measures

5.1 In the report presented to Committee on 10 July 2007, it was stated that *"There is no doubt that the 'street by street' proposals and the 'interim schemes' will deliver improvements to the conditions in Warwick town centre. However, these are unlikely to fully deliver the scale of improvement for Warwick that is required to fully achieve the Forum's vision 'To make Warwick's historic centre safer,*

easier and more pleasurable to live in, to work in, and to visit, now and in the future' and a package of complementary measures may be required."

5.2 Although the effectiveness of the 'interim' and 'street by street' proposals have not yet been thoroughly assessed, some investigation has taken place into two possible 'complementary measures'. A consultant's report was commissioned to review the technologies, scale of cost and feasibility of options available to reduce further the adverse impact of vehicular traffic on Warwick town centre. The study brief was explicitly focused on two alternative approaches, outlined briefly below:-

- (i) A road user charging system – a system to levy charges on a specific group of vehicle users for travelling on roads within a defined area of the town in order to restrict the demand to drive into or through the town centre.
- (ii) A traffic gating system – the controlled restriction of highway capacity at strategic locations around the town centre using traffic signals in order to manage the impact and/or volume of traffic within the town centre, ie the management of 'supply'.

Both systems were investigated in order to identify if they offer a potential solution to existing congestion, air quality and environmental issues in Warwick Town Centre.

5.3 **Road User Charging (RUC)** or Congestion Charging, is a method of influencing the demand for travel by car by charging for a journey through a specific area. This increases the cost of travel through that area or route, which either prompts people to use alternative modes or routes or, should they continue to drive through the charging area, forces them to provide a payment. Funds raised can be used to support improvements to alternative modes, which in turn can help make alternative modes of travel more viable. Non-payment of the charge is typically pursued through a similar mechanism as that used for parking fines, i.e. issue of a penalty charge notice.

5.4 A successful scheme depends on information on the charging area, charges applicable, alternative routes, alternative modes and alternative payment methods being readily available to drivers. The principle is to ensure that those wishing to access an area covered by a RUC scheme have the freedom and choice to do so by a number of means, each of which is subject to differentiated costs which can be adjusted to suit policy objectives – in short RUC is a market led approach which does not limit the freedom of the individual, but merely uses price to regulate the level of use of a particular mode within a defined area. Charging levels can be differentiated between specific user groups, traffic movements and vehicle types, the main limiting factors being the costs of running the system and maintaining clarity for the user.

5.5 According to the consultants report, the set up cost for a RUC scheme is likely to be at least £5 million, a sum which far exceeds that available from the South West Warwick Section 106 developer funding. The annual running cost is forecast to be in the region of £750 000. These costs are based on a initial

assessment of the likely works, infrastructure and support services required. More detailed work would be required to confirm these forecasts.

- 5.6 The amount of income from charges and PCNs will depend on the decisions made about the hours of operation, the discounts or exemptions given to certain classes of vehicles or drivers, and the running costs for administering the scheme. The consultant's report suggests that there is a marginally viable business case for a scheme which would cover its annual running costs provided the level of charge and the discounts are carefully set. It should also be noted, however, that the report has assumed a fairly small amount of traffic evaporation to other routes or modes. This assumption needs further testing as a small percentage of evaporation may mean that the objective of reducing traffic in the town centre may not be met, and a higher percentage may mean that the scheme is less able to cover its running costs.
- 5.7 The set up cost could either be funded through a Major Scheme bid via the Local Transport Plan process or through a Transport Innovation Fund (TIF) bid to the Department for Transport (DfT). Through TIF, the DfT are aiming to direct resources towards tackling congestion and improving productivity. The principle underlying TIF is that resources should be allocated on the basis of an assessment of how these objectives can be most effectively and sustainably met. Specifically, TIF supports:-
- (i) Costs of smarter, innovative, local transport packages that combine demand management measures, (eg road pricing) with measures to encourage modal shift and improved public transport services;
 - (ii) Mechanisms that raise additional funding for local transport schemes, including improvements to facilitate the use of alternative routes (eg Greys Mallory/Europa Way); and
 - (iii) Regional, inter-regional and local schemes which are beneficial to national productivity.

To date, no approach has been made to the DfT to discuss whether they would be interested in considering a bid for Warwick and therefore it is not possible to be certain that TIF funding would be forthcoming for a package of measures which would include RUC.

- 5.8 **Traffic gating schemes** can be relatively straightforward and simple traffic management measures which regulate vehicular access into sensitive areas through a cordon of signalised junctions. The aim is to both reduce traffic flows within the area and enable efficiency improvements to the management of existing traffic flows. Gating systems can also be used to relocate queuing traffic from unsuitable local environments (narrow highway corridors, densely built up areas or areas with particular environmental sensitivity) to locations better suited to accommodating queuing vehicles and their associated environmental impacts. Gating relies on existing traffic signal technology and can usually be integrated into existing signal systems.

- 5.9 This option focuses on reducing congestion in order to improve air quality whilst also seeking to limit the extent of queuing on the approaches, which due to the near to town centre location of gates would primarily occur in residential areas. A plan showing potential gateway locations is provided in **Appendix B**, although due to limited highway width a significant degree of parking loss may be required. It is also likely that increased rat-running will take place, although this has not been assessed through any modelling work. The total scheme cost would be likely to be less than £1m with limited on-going revenue implications, making it considerably cheaper than a RUC option. The scheme would need to be funded from existing sources as it would not meet the requirements for TIF funding.
- 5.10 By way of comparison, the table in **Appendix C** assesses the contribution of RUC or Gating in achieving the published principles of the Warwick Forum.

6. Proposed Next Steps for the Warwick Town Centre Traffic Management Review

- 6.1 The proposed introduction of a one-way system on Chapel Street has the potential to provide a very significant benefit to residents of Chapel Street, Gerrard Street and St Nicholas Church Street. The estimated cost is £25 000, which mainly relates to the Traffic Order process and the need for new and altered illuminated signs. Committee is requested to support the implementation of this scheme at the earliest possible opportunity using Local Transport Plan funding rather than waiting for any further developer contributions to come forward. With Committee's support, it is proposed to commence consultation early in the new year.
- 6.2 At the same time, it is proposed to further investigate changes to the operation of the traffic signals at the St Johns junction to achieve a balance of the inflow into St Nicholas Church Street with the outflow at Castle Hill. Funding for these changes may be available from developer contributions.
- 6.3 To date, the 'street by street' proposals have not been assessed using the Paramics model for Warwick. This model should show the effect on traffic of introducing the various changes to the network and a 20 mph zone. It is proposed to carry out this work as an input to the decision making process on whether to proceed to detailed design.
- 6.4 In addition, the equality and diversity assessment of the measures needs to be undertaken. It will be developed through consultation with representative members of the Forum to ensure that we fulfil our duties under disability equality legislation and policies.
- 6.5 The result of the assessment of the proposed 'street by street' measures should lead to a finalised proposed scheme. By this time, it should be clearer when the funding will be forthcoming and a report will be brought to this Committee for a decision on whether to proceed to detailed design and wider public consultation.

- 6.6 It is proposed to discuss the consultant's report on complementary measures further with the local Members and the Environment Portfolio Holder and to report those discussions to a future meeting of this Committee.
- 6.7 Committee's support is requested to investigate with the Government Office for the West Midlands whether it would be possible to remove the A429 through Warwick from the Primary Route Network. It is the view of the Warwick Forum that removing the A429 from the national route network would deter vehicles, particularly heavy goods vehicles, from using Warwick as a through route. However, it is not possible to evaluate what effect this would have in terms of traffic flow, particularly with satellite navigation systems being so prevalent. There would be a cost implication in this "de-priming" of the route as current green background road signs would need to be changed for white background signs.
- 6.8 Finally, Committee's support is requested for the continued work of the Warwick Forum. A number of round table discussions are planned to develop the 'street by street' proposals for the outstanding streets and junctions. In addition, a further whole Forum meeting is planned for April 2008 to consider Committee's comments and how it can support the development of the finalised proposals.


DAVID PYWELL
Interim Strategic Director for Environment and Economy
Shire Hall
Warwick


4 January 2008


Warwick Area Committee - 22 January 2008

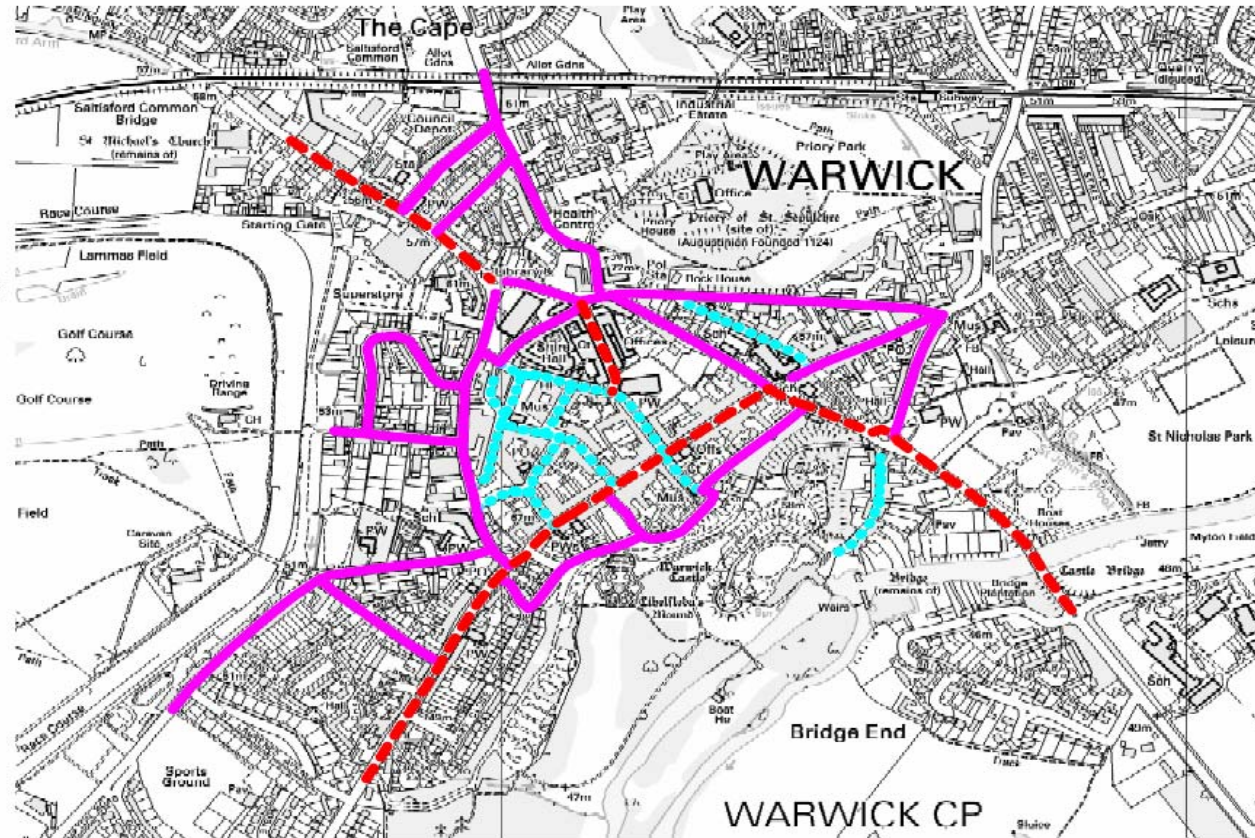
Warwick Town Centre Traffic Management Review - Progress Report

Proposed 20 mph area

 20mph speed limit currently viable

 20mph speed limit possible with some engineering measures, eg speed cushions

 20mph speed limit requiring significant engineering measures, eg carriageway/footway alterations

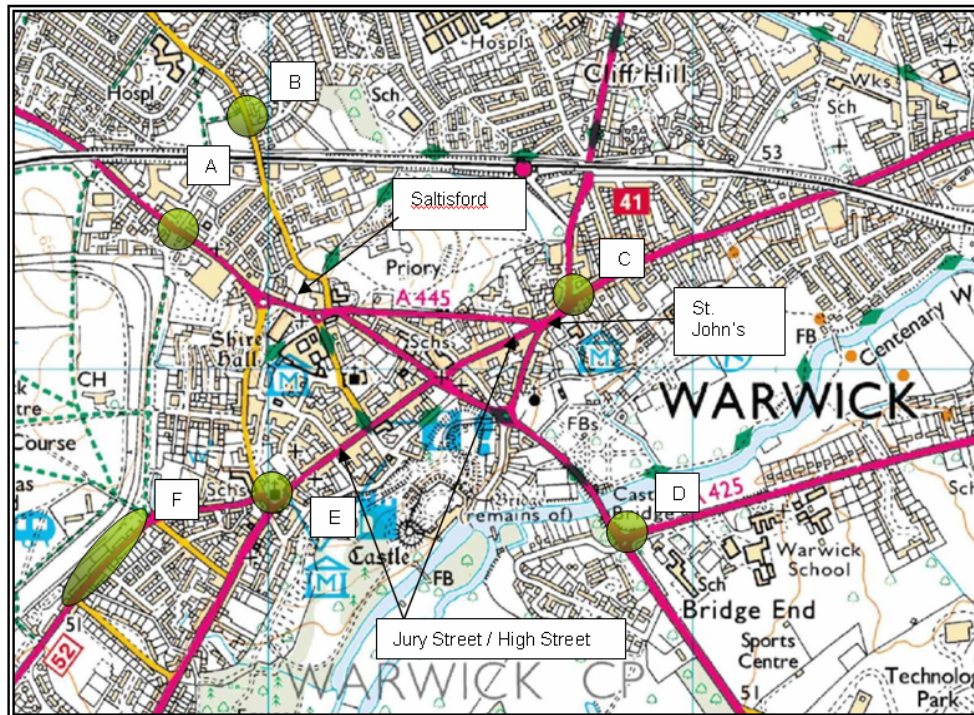


(c) Crown Copyright, Licence Number 100018285. Unauthorized reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Reproduced from the Ordnance Survey map with the Controller of Her Majesty's Office.

Warwick Area Committee - 22 January 2008

Warwick Town Centre Traffic Management Review -
Progress Report

Indicative Location of Traffic Signals for Gating



Gate A – Utilises an existing traffic signal junction location in order to limit construction costs. This junction currently operates at a similar capacity to downstream network capacity, with occasional queuing back through it from the Saltisford and The Butts. Restricting capacity at this location may help address these issues, but would encourage traffic to use Cape Road, hence requiring Gate 'B'. Currently queuing from Gate A can reach back towards the Wedgenock Lane junction, but rarely extends beyond it. However, restricting capacity further in order to relocate queues from the town centre is likely to exacerbate queuing, causing a worsening to queues which can currently tail back to Hatton and onto the A46.

Gate B – A new junction on Cape Road to restrict use and rat-running. This could have a secondary benefit of providing cycle crossing facilities and improving safety at Victoria Street.

Gate C – Utilises existing traffic signals at this junction, which is currently at capacity. Further restrictions to traffic flow would add to queuing on the approaches, which would occur predominately in residential areas and would also adversely affect bus routes. There are no suitable opportunities to mitigate this or have alternative gate locations. Consequently the result of a gate on this approach would be to relocate problems from the town centre to this area.

Gate D – New signals at Myton Road. These could usefully provide cycle and pedestrian crossing facilities, but would have a negative impact on the visual amenity of the Castle Bridge and potentially force existing u-turn traffic further into the town centre or St Nicholas Park to turn around.

Gates E & F - There is capacity to accommodate additional queuing on the West Street and Hampton Road routes into Warwick and gates at these locations could address existing pedestrian crossing issues. The location on Hampton Road is particularly suited to tidal flow operation to overcome existing narrow carriageway constraints and provide pedestrian benefits

Warwick Area Committee - 22 January 2008

Warwick Town Centre Traffic Management Review - Progress Report

Assessment of Schemes in Comparison with the Objectives of the Warwick Forum

Criteria	Contribution (Positive= ✓; Neutral= N; Negative= ✗)		Notes
	Gating	Road User Charging	
Objective 1: Reduce pollution and its impact on people and buildings	✓	✓✓✓	RUC provides a reduction in vehicles with the town without increased congestion, Gating can reduce traffic congestion in key sensitive areas and declared AQMAs. With careful selection of the gating points air quality is likely to be manageable under a Gating system, thus avoiding triggering additional AQMAs. However, Gating, unlike RUC, is unlikely to significantly reduce total vehicle volumes. Additionally under a Gating system, whilst queuing could be managed within the town centre environment, it would still be observed on approaches to the, with some resultant negative effect on noise and vibration. Additional traffic signal equipment may also be considered to create visual intrusion.
1.1 Reduce Nitrogen Dioxide emissions from vehicles below the threshold of an Air Quality Management Area at residential property frontages	✓✓	✓✓✓	
1.2 Reduce Carbon Dioxide emissions from vehicles	✓	✓✓✓	
1.3 Reduce noise, vibration, and visual pollution	✗	✓✓	
Objective 2: Make it safer, easier and more pleasurable to walk, cycle and use public transport	N	✓✓	Through the introduction of traffic signals under gating, pedestrian crossings could be improved for the vulnerable and on key approaches to the town centre, however, there is potential for more aggressive driver behaviour and freer flowing traffic informal crossing opportunities in busy traffic periods are likely to be less compared to RUC. RUC is likely to reduce traffic volumes more than feasible gating systems and increase the proportion of local traffic. Therefore the environment for pedestrian and cyclists will be more significantly enhanced with RUC than under Gating options. Additionally RUC has the potential to provide a revenue stream which could be used to support public transport enhancements.
2.1 Make it safer and easier for people on foot to cross traffic	✓	✓✓	
2.2 Improve pavements' quality	N	N	
2.3 Improve direct routes for walking, especially on routes of up to 1 mile	n/a	n/a	
2.4 Improve safety for cyclists and increase the extent and the quality of cycle routes and lanes	N	✓	
2.5 Eliminate the town centre 'bus loop'	n/a	n/a	
2.6 Increase the frequency of bus services and the directness of routes	n/a	n/a	
2.7 Establish Park & Ride, and Drop & Ride for schoolchildren, as better alternatives to car use	N	✓✓	
2.8 Give specific attention to the needs of people with disabilities, elderly people, children, parents with buggies, etc	✓✓	N	

Warwick Town Centre Traffic Management Review - Progress Report

Assessment of Schemes in Comparison with the Objectives of the Warwick Forum

2.9 Improve the enjoyment and benefits of Warwick's small scale, charm, historic nature, and green spaces	N	✓	
Objective 3: Improve access to the town centre and its activities	✓	✓	Neither approach would need to be operational outside of peak traffic periods and therefore the effect on the tourist and retail economy would be insignificant, other than that they may encourage alternative modes of travel for commuter trips, with an associated benefit in terms of availability of scarce car parking.
3.1 Enhance the retailing and tourist activity of the town	N	N	
3.2 Improve access to the town centre from the rest of the town, from the surrounding area and for visitors	N	N	
3.3 Make it easier to deliver to commercial premises	n/a	n/a	
3.4 Improve the availability of short stay parking in the town centre and of long stay parking serving it	✓	✓	
Objective 4: Facilitate and control better the movement of vehicles	✓	✓	Traffic is better able to speed in uncongested conditions and therefore, as both approaches are capable of reducing congestion within the town centre, speeds could increase. To combat this monitoring and enforcement and/or suitable remedial action would be needed. However, of the two approaches Gating is likely to have a worse effect as driver frustration levels are likely to be greater. The reduction of traffic volumes within the town centre under both approaches would provide improvement to the operation of key junctions which currently operate over their optimum capacity. Changes to signing and road classification could equally easily be considered under each approach.
4.1 Reduce the speed of traffic	N	N	
4.2 Promote the proper enforcement of moving traffic regulations	n/a	n/a	
4.3 Manage better conflicting vehicle movements	✓✓	✓✓	
4.4 Change road classifications and direction signs to reduce through traffic and ease parking	N	N	
Objective 5: Reduce the overall level of vehicle traffic in the town centre	✓✓	✓✓✓	Both approaches will be beneficial in reducing the level of traffic in the town centre, however, RUC will perform better as it can be specifically targeted towards through traffic. Additionally the Gating approach relocates queuing to the approaches to the town, which although beneficial in terms of reduced traffic issues in the town centre, does increase congestion outside it.
5.1 Reduce the volume of through traffic	✓	✓✓✓	
5.2 Reduce peak traffic flows and congestion	✓✓	✓✓✓	