12 Sustainability audit

As part of our commitment to promoting sustainable transport options across the County, a Sustainability Audit was commissioned, the findings of which are included within this Appendix. This Audit was conducted on the emerging draft LTP, to enable changes to be made to the LTP in accordance with the findings of the audit.

The major responses that have been made as a result of the audit are highlighted in Table 5.9 in Chapter 5 (The LTP Strategy). Other areas raised in the Sustainability Audit are addressed in Chapter 6 (Putting policies into practice). The following additional measures were developed in response to the issues raised in the audit.

- It takes account of the likely growth in the use of Stansted airport in the airport surface strategy.
- It gives greater consideration to noise pollution and safety records for powered two wheelers.
- It addresses the need to improve safety on buses.
- It makes clearer reference to the potential visual impacts of highway maintenance.
- It supports the potential east-west rail link despite the fact that it cannot bring forward major rail infrastructure projects.
- It sets out a clearer programme for taxis.
- It includes better promotion of the Travel for Work Partnership, we should help to encourage large employers to take part.
- It refers to the workplace parking levy and road user charging and indicates that they are not currently felt to be appropriate but will be considered further in future as the success of schemes in other parts of the country become apparent.

The Sustainability Audit also made a number of recommendations in relation to the original LTP objectives. In response to these comments, the LTP objectives (see Chapter 4) have been revised as follows.

- Original objective 2: To develop integrated and sustainable transport - the word sustainable has been removed since the objective as a whole are seeking to ensure the LTP results in sustainable transport, and in this context what is meant by sustainable was not clear. The word 'integrated' has been clarified in a footnote and includes integration of transport between modes and with other issues e.g. landuse planning and health.
- Original objective 3: To maintain and operate efficient transport networks - this has been retained, but explained further in Table 4.1 - which indicates that it includes punctuality and reliability of public transport and the condition of roads.
- Two additional objectives have been added: To promote public transport, walking, cycling and other sustainable forms of transport, and To protect and enhance the built and natural environment. These reflect some suggestions made in the Audit.

Following the incorporation of LTP responses to the Sustainability Audit, the LTP has undergone a supplementary review by the Consultants. The Consultant response to that review is as follows:

Land Use Consultants in association with the Metropolitan Transport Research Unit have undertaken a Sustainability Audit of the draft Cambridgeshire Local Transport Plan 2004 - 2011, on behalf of the County Council, and have subsequently reviewed the amendments made to the Plan in response to the Audit.

As noted in the Sustainability Audit report, it is clear that the Council is making great efforts to promote a sustainable transport system for Cambridgeshire. The LTP makes many positive steps towards meeting sustainability objectives for transport. Particular strengths of the plan include the following.

- Strong promotion of more sustainable transport modes, including buses, rail, walking, cycling, and community transport, which should help to create a more environmentally supportive and socially accessible transport system.
- The road and user hierarchies are useful concepts which should help to support more sustainable modes of transport.
- There are many very good cross-cutting initiatives such as Safer Routes to School, which should help to meet a number of the sustainability objectives.
- The LTP is well integrated with the land use policies of the Structure Plan.
- Overall measures to relieve the roads of private car use should help to support the economy, by reducing congestion and allowing more efficient movement of freight in particular.

Generally the two parts of the LTP document which refer to the Sustainability Audit (Chapter 5 and Appendix 12) make it clear how the LTP has taken on board the findings of the sustainability audit. These changes are largely made in Chapter 6 (Putting policies into practice). For example, there is now clear support for an east-west rail link, albeit that the LTP has little scope to bring forward such large-scale rail projects itself.

Table 5.9 lists the key areas for improvement and clearly justifies/responds to these recommendations. For example, it clearly sets out the role of the LTP in relation to through-traffic, and explains how greater emphasis on safety on public transport will be achieved. In terms of park and ride it is encouraging to see that the LTP has included the comments from the Audit, which note that there may be some unsustainable impacts from park and ride. In response it notes that the park and ride schemes will be phased in and monitored and will be expanded depending on the success of the initial schemes for market towns.

Similarly, in terms of the possibilities to implement workplace parking levies and/or road user charging the LTP now includes reference to these schemes, albeit to justify the fact that they are not currently felt to be appropriate but will be considered further in future as the success of schemes in other parts of the country become apparent.

We are therefore pleased to confirm that we have reviewed the responses to the sustainability audit, and have found the changes to be acceptable or discussed within the LTP. For the benefit of the County Council we have provided a separate note suggesting where further strengthening of the LTP in sustainability terms could be made. Overall we feel that the LTP should result in a move towards more sustainable transport patterns in Cambridgeshire.

Draft Cambridgeshire Local Transport Plan Sustainability Audit

Prepared for
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by
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Introduction

Cambridgeshire County Council are in the process of preparing the Cambridgeshire Local Transport Plan (LTP) to cover the period from 2004 to 2011. A Sustainability Audit has been carried out as part of this process to ensure the replacement LTP sets out a sustainable strategy for transport in the county.

The sustainability audit has been undertaken by Land Use Consultants in association with Metropolitan Transport Research Unit, who were appointed in April 2003 to undertake this work, by Cambridgeshire County Council.

The audit has been carried out on the draft plan in order to provide useful outputs to influence subsequent stages in the preparation of the LTP. This report presents the findings of the appraisal of the Draft LTP, together with our recommendations as to where improvements can be made.

Methodology

The sustainability audit has comprised the following tasks:

- preparation of a sustainability audit framework
- informal comments on the emerging draft chapters of the LTP (provided to Cambridgeshire County Council prior to this report)
- formal appraisal of the emerging draft chapters.

The first task was to develop a sustainability audit framework. This sets out a series of 15 'sustainability objectives' that the LTP should be aiming to pursue, supported by a series of more detailed 'decision making criteria', which provide further clarification of what the LTP could be expected to address in order to achieve the sustainability objective. The framework is presented in Table A12.1. The objectives are grouped under the following six themes:

- To safeguard the environment
- To reduce overall need to travel through integration of transport policies with land use policies
- To encourage means of transport which have less environmental impact
- To achieve a transport system that is accessible to all
- To achieve a safe transport system
- To achieve a transport system that supports the economy.

The framework has drawn on the framework developed for the appraisal of the Cambridgeshire and Peterborough Structure Plan Review, also undertaken by Land Use Consultants. However, the framework developed to appraise the LTP is specifically relevant to a transport plan. For example, the six themes around which it is structured specifically relate to transport. We have also included additional columns in the framework setting out the five objectives of the LTP, so it is clear to see how the objectives underlying the LTP should contribute to the sustainability objectives.

The section below describes which parts of the LTP have been appraised.

WHAT WE HAVE APPRAISED

The LTP is a long document comprising 8 chapters so far (with a ninth currently being drafted on targets and indicators). Chapter 1 is an introductory chapter, followed by Chapter 2 which sets out the policy context, whilst Chapter 3 outlines problems and opportunities for transport in the county. These chapters provide useful background to the LTP, but do not set out policy or actions as such. Therefore it was decided to concentrate on the following elements of the LTP for appraisal[1]:

- Chapter 4: Headline objectives
- Chapter 5: The LTP strategy
- Chapter 6: Putting our policies into practice (which sets out individual strategies for different modes)
- Chapter 7: Integrating transport
- Chapter 9 (formerly 11): The programme

The appraisal of Chapters 6 and 11 comprise the main body of the work as these set out the elements of the strategy in detail and the programme for expenditure on different schemes, and therefore allow an understanding of the impacts the LTP may have 'on the ground'.

In terms of the individual strategies set out in Chapter 6 we have appraised the following.

- Road and user hierarchies
- Road safety
- Tackling crime
- Safer Routes to School
- Buses
- Community transport
- Rail
- Taxis
- Interchanges
- Cycling
- Walking
- Mobility management
- Road maintenance
- Bridge maintenance and strengthening
- Airport surface access strategy
- Parking and demand management
- Powered two wheelers.

The strategies for roads and bypasses and detrunking were not available, and therefore have not been appraised. However, it is likely that some of the most significant impacts are likely to result from road schemes. It is recommended, therefore, that

Table A12.1 Sustainability audit framework

Sustainability Objectives	*Sustainability (Decision-making) Criteria*	*LTP Objectives** A	B	C	D	E
TO SAFEGUARD THE ENVIRONMENT						
1 To maintain and enhance the quality and distinctiveness of the area's landscapes, townscapes, settlement settings and historic, archaeological and cultural assets	• Will it halt the loss or fragmentation of landscape valued for its intrinsic quality? • Will it conserve and enhance countryside character? • Will it protect sites, features and areas of historical, archaeological and cultural value in both towns and the countryside? • Will it maintain and improve quality and distribution of urban and rural open space with an amenity value? • Will it ensure that new transport developments are of high design quality and maintain or enhance the historic character and setting of Cambridge, Ely, and other market towns and larger villages?		✔			
2 To protect, maintain and enhance biodiversity	• Will it avoid damage to international, national and locally designated sites of nature conservation or geological interest? • Will it conserve existing rural and urban habitats and create new habitats where possible? • Will it lead to the maintenance and improvement of the size and diversity of wildlife species populations indigenous to the Structure Plan area?		✔			
3 To make full and effective use of land and buildings within existing urban areas, whilst respecting the value of open space, and to minimise the consumption of greenfield land	• Will it prioritise the development of brownfield land within urban areas and help to maximise the use of vacant buildings? • Will it encourage mixed-use developments in existing centres and close to public transport nodes? • Will it reduce the consumption of greenfield land around Cambridge, market towns and larger villages? • Will it make effective and efficient use of brownfield and, where appropriate, greenfield land?		✔	✔		
4 To accommodate the climate change process and minimise the risk of flooding to people and property	• Does it help to maintain the integrity of existing floodplains?		✔			
5 To minimise overall energy consumption	• Will it reduce overall energy consumption by vehicles? • Will it encourage energy efficient modes of travel?		✔			
6 To minimise the generation of pollution, and the impacts it has on the environment and public health	• Will it maintain and improve local air quality for all? • Will it encourage travel modes that eliminate or minimise air pollution? • Will it encourage the use of fuels that minimise damage to the health of individuals? • Will it encourage the use of fuels that minimise pollution which threatens the local and global environment? • Will it improve and maintain the quality of ground and surface waters e.g. by reducing run-off directly from roads?		✔			
TO REDUCE OVERALL NEED TO TRAVEL THROUGH INTEGRATION OF TRANSPORT POLICIES WITH LAND USE POLICIES						
7 To reduce the overall need to travel through the integration of transport policies with land use policies	• Will it complement the spatial development policies and proposals contained in the Structure Plan?		✔	✔	✔	✔
TO ENCOURAGE MEANS OF TRANSPORT WHICH HAVE LESS ENVIRONMENTAL IMPACT						
8 To encourage means of transport which have less environmental impact, and reduce reliance on the private car	• Will it minimise use of the private car and motorised commercial vehicles? • Will it promote the use of Green Travel Plans? • Will walking, cycling and the use of public and community transport be encouraged? • Will it lead to the exploitation and efficient use of waterways and rail for transport of goods?		✔	✔		✔

Table A12.1 Sustainability audit framework

Sustainability Objectives	*Sustainability (Decision-making) Criteria*	*LTP Objectives* A	B	C	D	E
TO ACHIEVE A TRANSPORT SYSTEM THAT IS ACCESSIBLE TO ALL						
9 To achieve greater social equality in terms of access to jobs	• Will it improve access to jobs by public transport, walking and cycling in both urban and rural areas? • Will it aid regeneration efforts and help to target regeneration in areas of greatest need and reduce deprivation?		✔	✔	✔	✔
10 To achieve greater social equality in terms of access to health, education, recreation and community services and facilities	• Will it improve access to services and facilities by public transport in both urban and rural areas?		✔	✔		✔
11 To target specifically the most vulnerable members of the community	• Will it improve accessibility to services and facilities for less mobile members of the community? • Will it remove barriers to mobility to the most vulnerable members of society e.g. the elderly and disabled people and allow independent access to jobs and services?	✔	✔	✔		✔
12 To encourage healthy lifestyles	• Will it encourage walking and cycling? • Will it encourage active recreation?	✔	✔			
TO ACHIEVE A SAFE TRANSPORT SYSTEM						
13 To create safer places to work and live and to ensure 'whole journey' safety	• Will it minimise crime and fear of crime through design? • Will it promote well-used and overlooked streets and public spaces? • Will it reduce incidence and severity of road accidents? • Will it create a sense of community ownership?	✔	✔			✔
TO ACHIEVE A TRANSPORT SYSTEM THAT SUPPORTS THE ECONOMY						
14 To encourage and accommodate sustained economic growth throughout the area to facilitate improvements in business competitiveness	• Will it encourage economic growth? • Will it support business development and strengthen competitiveness? • Will it assist economic development in relatively disadvantaged areas (e.g. north and east of the plan area)? • Will it encourage economic links between market towns and their surrounding rural areas?		✔	✔	✔	
15 To encourage the efficient movement of goods in support of economic growth	• Will it reduce journey times between key employment areas and key junctions on strategic transport networks? • Will it facilitate efficiency in the development of the freight distribution network? • Will new warehouse and distribution facilities be well located in relation to the freight distribution network?		✔	✔	✔	

***Objectives**
A = *Making travel safer*
B = *Promote an integrated and sustainable transport network*
C = *Maintain and operate effective transport networks*
D = *Ensure that transport supports the economy*
E = *Improve accessibility and promote social inclusion*

these are also appraised when more details are available.

In terms of the programme we have appraised the schemes under the headings used in the programme, as follows:

- Corridor schemes
- Connections
- Cambridge
- General.

In order to record the findings of these elements of the appraisal a summary matrix was used. The appraisal of the other chapters (4, 5 and 7) take the form of a commentary, rather than detailed appraisal utilising appraisal matrices.

The findings of the appraisal are set out in the remainder of the report, as follows.

- Section 2: Appraisal: Objectives and the LTP Strategy sets out comments on the objectives and the approach underpinning the LTP strategy (Chapters 4 and 5 of the LTP).
- Section 3: Appraisal: The individual Strategies presents detailed findings of the appraisal of the individual elements of the strategy (Chapter 6 of the LTP).
- Section 4: Appraisal: Integrating transport provides a commentary on Chapter 7 of the LTP.
- Section 5: Appraisal: Programme presents detailed findings of the appraisal of the elements of the programme (Chapter 10 of the LTP).
- Section 6: Conclusions draws together the overall findings of the appraisal.

APPRAISAL: OBJECTIVES AND THE LTP STRATEGY

LTP OBJECTIVES

The LTP is underpinned by five headline objectives, which seek to shape the strategy and specific programmes. Evidently it is vital that the right objectives are identified in order to ensure the LTP is being developed in a sustainable direction. The objectives are:

- To make travel safer
- To develop integrated and sustainable transport
- To maintain and operate effective transport networks
- To create a transport system that is accessible to all, meeting the diverse needs of the Cambridgeshire community
- To provide a transport system that supports the economy.

Table A12.2 Comments on LTP objectives

Objectives	*Comments*	*Recommendations*
1 To make travel safer.	This is a clearly defined appropriate objective.	Retain as it is.
2 To develop integrated and sustainable transport.	It is not clear what is meant by 'sustainable' in this context. Sustainability embraces economic, social and environmental objectives. It is not clear how/whether the objectives specifically address environmental impacts e.g. landscape, biodiversity and countryside character. The term 'integrated' could also be better defined.	There should be specific reference to environmental objectives. Terms should be clearly defined ('integrated' and 'sustainable'). The following objectives from the sustainability audit framework could help to inform revisions to this objective/any additional objectives: • To safeguard the environment (landscape, biodiversity, pollution etc.) • To integrate transport policies with land use policies • To integrate transport systems, modes and services • To encourage means of transport which have less environmental impact
3 To maintain and operate effective transport networks.	It is not clear what this objective refers to. The term 'effective' is rather vague – it could refer to modes of transport, or networks which keep traffic moving, etc. Keeping traffic moving could be considered to be one understanding of 'effective' but this is not necessarily sustainable if it encourages more traffic on to the roads of the county.	This objective requires clarification.
4 To create a transport system that is accessible to all, meeting the diverse needs of the Cambridgeshire community.	This is a clearly defined appropriate objective.	Retain as it is.
5 To provide a transport system that supports the economy.	This is a clearly defined appropriate objective.	Retain as it is.

Table 12.2 sets out comments on each of the objectives, and recommendations as to how they could be improved/clarified. If the Council wishes to modify the objectives, they could draw on the objectives used in the sustainability audit framework, as noted below.

THE LTP STRATEGY

The LTP strategy, as set out in Chapter 5 of the LTP, focuses on three major components:

- Corridors
- Connections
- Cambridge and its hinterland.

Overall the strategy represents a realistic approach; it accepts that there will be a significant need for people to move around within the county, and that existing development patterns and development commitments under the previously adopted Structure Plan are relatively dispersed. Given this context it tries to promote a switch to more sustainable modes along key corridors and to cater for those outside the corridors by creating more sustainable modes of access to them. The idea of 'connections' to the key corridors seems to be an eminently realistic approach, and whilst not providing direct services (such as bus services) from all towns and villages to key centres, it is more likely to achieve a dependable and long-term solution to rural transport issues.

The LTP also recognises the new focus of development around Cambridge, as set out in the emerging Structure Plan, and aims to support this land use strategy. However, more could be made of specifically promoting sustainable modes of transport for those developments adjacent to the existing urban boundary.

Delivery is dealt with in Chapter 6 of the LTP, and our appraisal of this chapter looks at whether a sustainable transport system, in terms of accessibility, achieving a modal switch and so on, is likely to be achieved in practice.

The links with health and education are very good, although aside from the health benefits of walking and cycling, the wider health impacts of transport on health could be considered in this chapter (for example, the implications of pollution on health), although this is to some extent picked up on in Chapter 7 Integrating Transport.

It is felt that the strategy perhaps falls down a little in relation to links between transport and the economy, and in terms of regional and national travel patterns. Through traffic is a very important user of the transport network and should be considered in the strategy.

APPRAISAL: THE INDIVIDUAL STRATEGIES

Chapter 6 of the LTP (Putting our policies into practice) sets out strategies for specific transport modes. It also 'sets the scene' for transport in the county by setting out hierarchies which have been developed to help inform transport decisions, in terms of whether to continue or modifying existing measures or introduce new measures.

The hierarchies and each of the individual strategies have been appraised using the matrix set out in Section 1 of this report. The full matrices are presented in Appendix 1. The sections below provide a commentary of the findings of these detailed appraisals.

Road and User Hierarchies

The use of road hierarchies is now established practice in local transport planning although they do imply that some people (particularly those living along main roads) may have to suffer for the greater good of the majority. We particularly like the use of the user hierarchy in combination with the road hierarchy as a means of ameliorating some of these impacts and finessing the arguments in favour of the road hierarchy. So for example, although the private car has greatest priority on the Main Roads, public transport has even greater priority, which serves the dual purpose of being more sustainable and to some extent compensating those living alongside these routes.

We have a slight concern about the top priority being given to pedestrians and cyclists in Rural Areas. The principle is sound but in practice there is a need to be strongly aware of the inherent dangers facing pedestrians and cyclists on relatively lightly trafficked rural roads, particularly due to traffic speed.

INDIVIDUAL STRATEGIES

Road safety

The second paragraph (under the graph) needs to emphasise that it is a good thing that more slight accidents are taking the place of fatal or serious accidents, but that these accidents now need to be tackled with as much energy as in the past.

Safety strategy

In the five strands of this strategy there is a greater sense of celebrating the good work that has been done in the past and present but perhaps not enough emphasis on intentions during the plan period. Is it essentially more of the same or are there new initiatives? This is particularly true of the sections dealing with Education and Training, Enforcement and Encouragement. Enforcement is crucially dependent on day to day (Revenue) resources and there needs to be more specific commitment spelt out in the LTP from the County Council, Police and other partners. Are there more specific road safety targets to come later? There may of course be more on this whole section in later chapters. If so, then more cross-referencing (or even some slight repetition) may help.

Under the programme there seems to be an emphasis on a reactive rather than a proactive approach to accident clusters. Surely prevention is better than cure. Obviously one cannot predict with total accuracy the likely hot spots but we can try to anticipate problems and design-in solutions. We are sure that this is the intention but the text does not quite convey it in its present form.

Tackling crime

The programme is to follow but so far nearly all the emphasis is on past and present initiatives. Although security on buses and trains is mentioned as a perceived problem there is little reference to initiatives to tackle it.

Safer Routes to School

There has clearly been some excellent work done in the past and which continues in the present on this key transport issue, but what of the future? Is it more of the same via a continuation of current initiatives? If so, perhaps the intentions should be made more explicit. This question may be to some extent answered by the Programme to follow.

Public Transport

Buses and community transport

This whole section is generally very sound in terms of the application of sustainability principles. There is a strong link into the policies of the Structure Plan. There is a coherent and interlocking set of strategies for Corridors, Market Towns, Cambridge and Rural Areas. There is a comprehensive programme and a clear set of criteria for supporting services. We have two comments: first could the strategy for reorienting rural routes so as to feed the corridor and rail services rather than trying to offer a comprehensive, separate network be made more explicit, perhaps in diagrammatic form? Second, could some reference be made in the section on Community Transport to the more effective use of Social Services, Health Services and perhaps Education transport services to offer greater choice. So often elderly people are dropped at say a day centre in the morning and not picked up until the late afternoon whereas a more regular service perhaps coordinated with another agency could offer the opportunity to leave earlier. The Fenland experiment will provide an opportunity to explore some of these issues. The implementation programme is to follow so cannot be commented on.

Rail

This section has sound realistic objectives with emphasis on drawing new passengers onto the railway. However, apart from the interchange at Chesterton the programme seems very un-ambitious in terms of resources: £10k per annum for minor improvements and a £110k one-off amount for interchange improvements at Huntingdon station. The LTP could also refer to the proposed station at Addenbrookes which is referred to in modifications to the Structure Plan, and could also support the proposed East-West rail link.

Taxis

We found this section a little confusing, with aims, policies and initiatives not linking together very well. The diagram suggests that there will be different local policies for each of the five districts but the text gives no clue as to how they might differ from one another to cater for the specific needs of each district. Targets are to follow, but there will be no specific programme, with measures being delivered through other initiatives. It is not clear why the taxi programme is being dealt with in such a way which is different from all other modes. It might be clearer if the programme was included as a specific item, even at the risk of repetition.

Interchanges and new park and rides

The criteria listed are essentially design criteria geared to improving the quality of an interchange rather than locational criteria which would explain why the specific new park and ride sites have been chosen. This is made more clear in the section headed park and ride so some reordering of these two sections might help.

On pure sustainability grounds, we feel that the case for more park and rides has not be made in a totally convincing manner. The text acknowledges that people may travel extra distances by car to reach a park and ride service. The question is that by adding more car parks will there be more travel by car or less? And at some point does the landscape and environmental impact of the car parks on such a large scale become unacceptable? Also could additional park and ride sites undermine the proposed feeder bus services to the main corridor routes? It is clearly about balancing one set of environmental concerns against another but the potential conflicts ought perhaps to be recognised.

Evidence[2] suggests that park and ride might increase car dependency and generate increased trips and also decrease the viability of conventional public transport which would decrease accessibility for non-motorists (these conclusions are based on a study of 24 park and ride schemes in the UK, and other detailed studies of 16 schemes). Therefore, there is a clear need to study the implications of park and ride in Cambridgeshire, for example through piloting new schemes further out of Cambridge, prior to introducing additional schemes county wide.

Nevertheless, the research by Parkhurst (1999) does suggest that a number of measures can add to the sustainability benefits achieved by park and ride, which the LTP is promoting, for example, the provision of interchanges that are attractive to pedestrians and cyclists and which link with rural bus services and taxi-buses, and efforts to encourage modal shifts earlier in journeys by locating sites further out of towns. Other measures which could help to maximise the benefits include introducing complementary traffic restraint policies, such as congestion charging, pedestrianisation and reductions in town centre parking capacity. It is also important that the pricing of different modes of transport reflects the differential sustainability benefits, for example of utilising public transport for whole journeys compared to park and ride, where there is still a need for unsustainable car use.

On a more practical level, is it likely that many people would wish to park and ride into other market towns rather than just drive there?

Waterways

Waterways provide an important recreation resource and can also be used as a more sustainable mode of transport for freight. The LTP clearly supports both these aspects whilst recognising that improvements for recreation and/or freight must take into account the biodiversity value of the waterways.

Cycling and Walking

Cycling

The emphasis given to cycling is clearly a strong point in terms of sustainability with a clear set of targets and a comprehensive, costed programme. However we feel that the targets could be more ambitious, particularly for Cambridge and the Market Towns. Perhaps the existing relatively high levels of cycling in Cambridge should be seen as an opportunity rather than a constraint. Levels in other similar European cities are much higher. For example, many Dutch cities have achieved far higher levels of cycling and cycling accounts for 27% of all journeys throughout the country as a whole. Opportunities to provide safe cycling routes for new developments could also be promoted. For example, the LTP states that 'with the forecast level of development for the city, simply maintaining the modal share is going to be a significant challenge'. It is our view however, that precisely because of the scale and location of the proposed development areas around Cambridge, a major opportunity is provided to encourage walking and cycling in particular, but also public transport, rather than the car, right from the start of the development process.

Walking

Again the aspirations and policies are sound in sustainability terms. Could the programme address any areas where existing barriers to pedestrian movement (e.g. railway lines could be ameliorated through the addition of crossing points?) Otherwise it seems very modest, although more is to follow.

Mobility management

This we feel is potentially a very strong section of the LTP. The placing of considerable emphasis on persuading people to use sustainable modes as they move into new developments is laudable. The programme has a direct link to the new housing programme set out in the Structure Plan. The Promotional and Public Transport Information Programmes are excellent.

Our only concern is that more emphasis could be give to the encouragement and development of Travel Planning throughout the County, building on the undoubted success of the Addenbrookes initiative and involving large private sector employers.

Highway network management

Road maintenance strategy and bridge maintenance and strengthening strategy

These two sections are very comprehensive in scope but contain much descriptive material and contain a plethora of key themes, aims, objectives, policies, criteria and targets. Sustainability is one of the many criteria used in the prioritisation of bridge strengthening and maintenance schemes but it is not at all clear how this criterion is applied. We do not wish to underestimate the importance of transport infrastructure maintenance but suggest that more attention could perhaps be given to developing maintenance programmes with the principles of sustainability firmly in mind. For example, to what extent is the public informed of major maintenance works that might seriously affect them?

We also suggest that this section needs some editing to bring it in line with the general tone of the rest of the document.

Roads and bypasses

Not appraised due to insufficient detail.

Airport surface access strategy

This element of the LTP clearly requires more work, particularly to take account of the likely growth in the use of Stansted airport and its implications for Cambridgeshire's transport infrastructure. One small point: the introductory paragraph says that 'there are good train routes from Cambridge to all airports.' Is this the case for Luton and Heathrow?

Detrunking

Not appraised due to insufficient detail.

Parking and demand management

This section is soundly argued with sustainability principles at the forefront of the objectives and policies. The policies are entirely consistent with the Structure Plan. However we can see no reference to either the Workplace Parking Levy or Road User Charging as a means of managing demand. These are clearly fraught with controversy but given that other authorities are seriously considering or have introduced one or other of them, perhaps the arguments in relation to Cambridgeshire should at least be rehearsed even if only to provide reasons for rejecting them.

Powered two wheelers

Although we recognise the benefits of powered two wheelers as providing transport for those without access to a car, we suggest that their very poor safety record and the noise pollution created in both city centres and during their use in countryside recreation deserve more attention in the policies. For example safety awareness campaigns could form an important component of the strategy.

APPRAISAL: INTEGRATING TRANSPORT

Chapter 8 of the LTP (Integrating transport) draws out the links between the strategies for individual modes set out in Chapter 6. It looks at accessibility, social exclusion, rural areas, the environment, and key partnerships. The Chapter is still very much in draft form and we have therefore made some overarching observations, rather than carrying out a detailed appraisal.

OVERALL STRUCTURE OF CHAPTER 8 AND ITS RELATIONSHIP TO CHAPTERS 6, 5 AND 3.

We think we can appreciate the logic of Chapter 8 in relation to Chapter 6 i.e. that it is a different way of presenting the same set of policies and proposals so as to emphasise the broad strategic concepts – Accessibility and Social Inclusion, the Environment, Public Health and Partnership – that underpin the LTP.
Looking at the LTP as a whole, one could read it as a matrix, with the Chapter 6 headings – basically travel modes- running in one direction and the big, strategic concepts of Chapter 8 running in the other, the elements of the matrix being the policies and proposals which form the substance of the LTP.
If this is the way the LTP is intended to be read then it would be beneficial to:

- Explain this 'matrix' relationship between Chapters 6 and 8 in Chapter 5
- Put Chapter 8 before Chapter 6
- Put much of the more descriptive and analytical material from both Chapters 6 and 8 in Chapter 3 – Problems and Opportunities or even in a series of appendices. As the LTP currently reads, the key principles of the strategy, which are very good, are somewhat lost.

We also consider that the structure of Chapter 8 would be improved by:

- Combining the Accessibility and Social Inclusion Strategy with the strategy for Rural Areas
- Putting the sections on Walking and Cycling, Public Rights of Way and Horses in Chapter 6.

So Chapter 8 would contain four strategies:

- Accessibility and Social Inclusion
- The Environment
- Public Health
- Local Strategic Partnerships.

The following comments relate to the Chapter as it is presently structured.

ACCESSIBILITY STRATEGY

The principles underpinning this strategy are entirely consistent with sustainability aims. Clearly the results of the accessibility audit, being undertaken as a separate exercise, will be crucial to the development of specific policies and proposals.

Under the heading '3. Making transport more accessible and more affordable', the meaning of 'accessible' is somewhat different to that used in a more general sense. Here it means improving access for disabled or mobility impaired people or people who find conventional public transport difficult or impossible to use. It would be helpful if this distinction could be made clear. Perhaps the later section headed Transport for People with Disabilities should come here.

The conclusions admit that the current state of this strategy represents 'preliminary thinking' with a few hurdles to overcome before it can be completed. So perhaps its title should be 'Towards an Accessibility and Social Inclusion Strategy'.

RURAL AREAS

Again the whole thrust of this section is consistent with the criteria we have used for our Sustainability Appraisal. However, much of this material should perhaps come earlier in the LTP. It is almost entirely either descriptive or analytical material relating to existing problems and issues. There is also some repetition of material included in Chapter 6. The table headed 'analysis of community transport needs' does contain a column relating to implementation but the measures and funding levels shown do not agree with those shown in the final Programme chapter.

The section on 'Improved Opportunities for Walking and Cycling' could easily be incorporated into Chapter 6.

Likewise 'Partnership Working' could be incorporated into the later 'Local Strategic Partnerships' section in this chapter.

The sections on Public Rights of Way and Horses could be combined into one section and incorporated into Chapter 6 with the elimination of some duplication. The programme for Horses reads more like a set of objectives than a specific action programme.

THE ENVIRONMENT

Once more the whole thrust of this section is in pursuit of sustainability and thereby emphasises its importance in the thinking behind the LTP. This is commendable.

There are four main strands in this section – air quality, noise, climate change and minimising the impact of transport infrastructure on the built environment. One has a strategy attached; the other three do not. It might be clearer to have a single overall Environment Strategy with four components. We think this is the intention but it is not entirely clear. It may also be logical to include climate change first given the importance of this issue.

It is not completely clear how this strategy relates to the Cambridgeshire County Council Environment Strategy and Action Plan, and whether it is effectively a sub-set of it.

In the sections on air quality, noise and climate change there is much descriptive and analytical material which could either come earlier in the LTP or perhaps be put into appendices and cross-referred to. Also there is greater emphasis on what has been done in the past than what is planned for the future.

LINKS TO THE HEALTH SERVICE

This section could emphasise more clearly that public health does not just depend on the services of the NHS but that many other agencies – including transport agencies – have an important role to play. The Health Improvement and Modernisation Plan is clearly geared to these broad aims and is an excellent initiative, entirely consistent with sustainability principles.

CONCLUSIONS

Overall we consider that this chapter, albeit in draft form with some omissions, gives the LTP a strong orientation towards the broad principles of sustainability and in its final form should meet the criteria of sustainable development.

APPRAISAL: PROGRAMME

Chapter 10 of the LTP sets out the programme of expenditure proposed to implement the strategy.

The programme clearly signals what the strategy is aiming to achieve in practice, by setting out detailed measures for which funds are to be sought. However, the programme does not provide very much (if any) detail on many of the schemes, so it is not always clear what certain elements of the programme are (for example, 'Access to Cambridge needs', 'various transport improvements', etc.) some of which account for considerable amounts of expenditure.

Due to the lack of detail on many schemes, a broad-brush approach to the appraisal has necessarily been undertaken. Therefore the programme has been appraised under the broad headings used in the programme, as follows:

- Corridor schemes
- Connections
- Cambridge
- General.

Each element has been appraised using the sustainability audit framework. The matrices setting out the detailed findings are presented in Appendix 2, and are discussed below.

CORRIDOR SCHEMES

These make up the majority of items in the programme and account for around 70% of the total programme in monetary terms.

In order to consider how sustainable the programme for corridor schemes is, it was decided to categorise the expenditure into broad areas, as follows: traffic calming measures, highway schemes, station improvements, Rapid Transit, park and ride, cycle schemes and other elements, and to consider the relative merits of each category of expenditure in terms of sustainability. As such we have allocated each category a broad relative sustainability 'rating' of high, medium or low as follows:

- Traffic calming measures (medium)
- Highway schemes (low)
- Station improvements (high)
- Rapid Transit (high)
- Park and ride (medium)
- Cycle schemes (high).

The reasoning behind these ratings should be self-explanatory. However, it is worth noting the 'medium' rating for park and ride. This reflects the fact that it is not clear how park and ride will affect car use and how it could affect overall accessibility to transport for those without a car, and for those relying on feeder connections to the main corridors which could potentially be undermined (as discussed in relation to park and ride in Section 3 of this report).

Overall schemes rated as being highly sustainable account for around 69% of expenditure on corridors, which is very encouraging – the majority of which is accounted for by corridor

improvement schemes, station improvements, safety schemes, Rapid Transit and cycle schemes. These measures should all help to encourage people to use more sustainable modes of transport with the concomitant benefits of reduced air pollution, congestion and so on. There is also a very small level of expenditure on bus information (which is understandable given the nature of the improvements, such as real time information), which will also contribute to this. Such measures should also alleviate further pressure on the need for new major infrastructure schemes. Such measures will also help to meet the social objectives of creating a transport system which is safe and accessible to all.

The corridor approach also clearly relates to and supports the approach to development set out in the previous and revised Structure Plan. The corridor improvements and highways schemes support the dispersed pattern of development advocated in the previous Structure Plan whilst the Rapid Transit is much more closely aligned to the new Structure Plan and the settlement at Longstanton/Oakington.

Schemes rated as being of medium sustainability account for 9% of expenditure on corridors, and schemes considered to be of relatively low sustainability merit account for 22% (i.e. highways schemes).

A significant amount of expenditure is going into schemes which could have environmental impacts – highways schemes, Rapid Transit and park and ride (of which Rapid Transit falls into both being potentially highly sustainable but also having the potential to cause significant environmental impacts) and which will have to be carefully implemented to minimise impacts e.g. on biodiversity and landscape.

Overall therefore it is considered that the programme for corridors should result in sustainable measures on the ground, given the large proportion of expenditure on corridor schemes, station improvements, safety schemes, Rapid Transit and cycle schemes. However, it is important that careful consideration is given to the sensitivity of locations in which schemes take place and that suitable mitigation measures are put in place.

CONNECTIONS

Connections schemes consist of those measures designed to link areas into the key corridors. These include market town strategies, community transport schemes, and park and ride schemes, amongst others.

Overall 39.4% of programme spend is allocated to connections; however, it is not clear how much will provide sustainable and accessible connections (although some clearly will such as the expenditure on community transport, but this is a very small element of the programme). Other significant expenditure in this element of the programme is accounted for by park and ride, which as noted previously is not necessarily accessible to all and may cause increased car use. 65% of the spend on the connections element of the programme is allocated to 'various transport improvements', which means that it is very hard to comment on this element of the programme. The level of definition for each scheme is also insufficient, for example, it is not clear what is meant by 'rural south' (although it is assumed that this is a community transport measure, as per 'community transport rural North Hunts, which is listed above it).

CAMBRIDGE

Spend on the element of the programme targeted at Cambridge is dominated by spend on 'access to Cambridge's needs' (80%) and it is not clear what this is. If it is referring to measures to encourage walking, cycling and public transport from the proposed developments in the Structure Plan then significant sustainability benefits could arise. Many of the other measures also appear to be positive in sustainability terms, for example, the traffic restraint plan and bus priority measures.

GENERAL

The expenditure on this element of the programme is going to very commendable schemes to increase awareness and safety, which should help to promote the use of more sustainable modes of transport. As such it is a key element of the programme, and very important in ensuring that new measures to improve cycling, walking and public transport are recognised and utilised by the public. The programme should also help to support the Structure Plan by targeting new developments to encourage use of sustainable modes of transport. Therefore this element of the programme (accounting for 1.2% of expenditure overall) should help to deliver positive sustainability benefits in terms of encouraging more sustainable modes of transport, achieving an accessible transport system and ensuring transport is safe.

Overall therefore it is felt that the programme should lead to a more sustainable transport system for Cambridgeshire. However, there are elements of the programme whose effects are hard to predict given the lack of information available on them.

CONCLUSIONS

From the sustainability appraisal of the Draft LTP, it is clear that the Council is making great efforts to promote a sustainable transport system for Cambridgeshire.

The LTP makes many positive steps towards meeting the five overall sustainability objectives for transport, identified at the start of this appraisal:

- To safeguard the environment
- To reduce overall need to travel through integration of transport policies with land use policies
- To encourage means of transport which have less environmental impact
- To achieve a transport system that is accessible to all
- To achieve a safe transport system
- To achieve a transport system that supports the economy.

Overall progress against each of these objectives is summarised in Table A12.3. Particular strengths of the plan include the following

- Strong promotion of more sustainable transport modes, including buses, rail, walking, cycling, and community transport, which should help to create a more environmentally supportive and socially accessible transport system.
- The road and user hierarchies are useful concepts which should help to support more sustainable modes of transport.
- There are many very good cross-cutting initiatives such as Safer Routes to School, which should help to meet a number of the sustainability objectives.
- The LTP is well integrated with the land use policies of the Structure Plan.
- Overall measures to relieve the relieve the roads of private car use should help to support the economy, by reducing congestion and allowing more efficient movement of freight in particular.

Key areas for improvement include the following.

- Strengthening the strategies in relation to walking and cycling, and better linking them to new developments in the soon to be adopted Structure Plan, supported by challenging targets.
- The LTP must be aware of the potential for some schemes, both major and more minor, to impact on the environment, for example on biodiversity and/or landscape quality, and ensure that adequate assessments are made to identify and mitigate impacts of specific measures.
- The impacts of park and ride in relation to car use and on the viability of traditional public transport are still uncertain. The benefits that have been felt in Cambridge may not necessarily have been felt elsewhere. They also have the potential to undermine the proposed improvements to public transport (e.g. feeder routes). The LTP should aim to pilot and monitor schemes further out of Cambridge, before widely implementing such a strategy throughout the County.
- The strategy for parking and demand management could be strengthened. In order to compliment the significant 'carrots' in the LTP, with sufficient 'sticks' to put greater pressure on car users to switch modes. For example, the LTP could consider the role of the Workplace Parking Levy and Road User Charging.
- The approach to achieving a safe transport system could be improved by ensuring the LTP takes a proactive rather than reactive approach to safety. It could also put more emphasis on safety on public transport, in terms of preventing crime.
- The strategy in relation to taxis could be clarified as it is not clear what measures are being undertaken and by whom.
- The strategy for airport surface access should take account of the likely growth in the use of Stansted and implications for Cambridgeshire's transport infrastructure.
- The strategy for powered two wheelers could perhaps be promote this mode to a lesser extent, given the noise and emissions associated with the mode of transport, and also the poor safety record.
- It is not clear what, if any, effect the LTP will have on regional and national traffic that uses the county as a through-route (e.g. A14).

We have not been able to appraise the road schemes in any detail, and parts of the expenditure programme are not clearly defined. It is suggested that these are subject to proper appraisal once further information is available, particularly as these may well have significant sustainability implications.

Land Use Consultants • MTRU

2 June 2003

[1] N.B. Chapter 4: targets and indicators was not available at the time of the appraisal.

[2] Parkhurst G (April 1999) Does bus based park and ride assist the integration of local transport?.

Table A12.3 The Cambridgeshire Local Transport Plan: Sustainability overview

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔/✔	• Many of the individual modal strategies as implemented by the programme should contribute to meeting this objective. Generally measures to encourage more sustainable modes of transport should help to reduce pollution and also alleviate the need for further major infrastructure schemes (such as extensive road building programmes). • However, some schemes have the potential to cause environmentel impacts, for example impacts on biodiversity and/or landscape quality. For example, the Rapid Transit proposals, road building (which have not been subject to detailed appraisal in this Audit) and park and ride schemes could all have such impacts. Therefore there is a need to carefully ensure that project level environmental assessments are undertaken to ensure that sensitive locations are not impacted on by transport related developments, and to ensure that suitable mitigation measures are put in place. Such considerations must be made in relation to large infrastructure projects, but also in relation to smaller scale works, such as bus shelters and buses themselves and road maintenance, which can also have impacts on streetscapes, landscapes and biodiversity. • One element of the LTP strategy where the outcomes are uncertain is in relation to park and ride. The car parks required for park and ride may cause impacts, for example, on landscape, biodiversity and flood risk. The impact of such schemes on car use and hence pollution is also uncertain. • The strategy for powered two wheelers, which to some extent promotes this mode of transport, could also result in a less sustainable LTP due to the air and noise pollution associated with this mode of transport.
To integrate transport policies with land use policies	✔/✔✔	• The previous Structure Plan allowed for much more dispersal of development than the current Structure Plan, which seeks to promote development close to Cambridge. Generally the LTP does a very good job at supporting the development patterns that are committed to as a result of the previous Structure Plan and also supporting the policies in the new Structure Plan. For example, the corridor and connections approach supports the more dispersed settlement patterns and does so in a realistic way, by focussing on key corridors and providing feeder services to these, which are likely to be more dependable and durable in the long-term than direct public transport services serving many dispersed locations. Other measures, such as the Rapid Transit scheme are much more closely aligned to the new Structure Plan and the new settlement at Longstanton/Oakington. • The LTP also includes very good measures to increase awareness of sustainable transport modes in new developments, and links the programme of delivery to the timing of new developments. However, the strategy is weak in relation to cycling and walking and new development. There are opportunities to promote cycling and walking measures in proposed new developments close to Cambridge but these have largely been missed, and it is felt that more ambitious targets for cycling could be set. • Some concerns over park and ride – could this undermine the Structure Plan aims to locate development close to Cambridge?
To encourage means of transport which have less environmental impact	✔✔/✔	• Many of the individual modal strategies as implemented by the programme should contribute to meeting this objective, for example the strategies in relation to safer routes to school, buses, rail, walking, cycling, mobility management and community transport should all contribute. Together they provide both sustainable transport options and also raise awareness of these options (particularly through mobility management and safer routes to school). • The road and user hierarchy also supports more sustainable modes of transport, as do measures to tackle crime and road safety (although there is perhaps more which could be done in relation to crime/safety on public transport, which could be a key factor in influencing people's transport choices). • The strategies in relation to walking and cycling, however, could be further strengthened. For example, by linking them in to proposed new development schemes and by setting more challenging targets for cycling. • The effects of park and ride on this objective are uncertain and there is some debate over this in research circles. Overall park and ride could help to achieve more sustainable transport in Cambridgeshire. However, evidence suggests that park and ride might increase car dependency and generate increased trips and also decrease the viability of conventional public transport which would decrease accessibility for non-motorists. Therefore, there is a clear need to study the implications of park and ride in Cambridgeshire, for example through piloting new schemes further out of Cambridge, prior to introducing additional schemes county wide. • Nevertheless the provision of interchanges that are attractive to pedestrians and cyclists and which link with rural bus services and taxi-buses, and efforts to encourage modal shifts earlier in journeys by locating sites further out of town could help to maximise the benefits of park and ride. • Parking and demand management should help to curb car use. However, this element of the strategy lacks some detail and does not include specific intentions. This part of the strategy could also address the Workplace Parking Levy and Road User Charging, which are two measures of great interest currently. Therefore the strategy could be strengthened to help further move the LTP in a more sustainable direction.

Table A12.3 The Cambridgeshire Local Transport Plan: Sustainability overview

Overall sustainability objective	*Compatibility*	*Commentary*
To achieve a transport system that is accessible to all	✔✔/✔	• Many of the modes of transport which have less environmental impact are also more widely accessible, for example, buses, rail, walking, cycling, and community transport (which is a very strong element of the strategy and likely to do a lot of good in making the transport system accessible to the elderly and those with disabilities in particular). • The corridor/connection approach to public transport provision should also help to ensure accessibility throughout the county. Therefore the LTP should help to improve accessibility, but as noted above the strategies in relation to walking and cycling could be strengthened, and thus contribute further to improving accessibility to the transport system. • Again, measures to tackle safety and crime should also help to make the transport system more accessible, particularly to more vulnerable members of society. • The impacts of park and ride on accessibility must be carefully considered. Park and ride may not be accessible to those without cars, and it is important that efforts to link these services with cycling and walking and other bus services are made. It is also important to consider the possible effects on other public transport services and to ensure that park and ride does not undermine their viability.
To achieve a safe transport system	✔	• The LTP tackles road safety, but is somewhat reactive rather than proactive, and could be much more anticipatory. For example, by linking in to the user hierarchy to consider the implications of increased cyclist and pedestrians in rural areas. • The strategy should also consider safety in relation to new schemes and place more emphasis on designing in safety measures. • Other measures should contribute to safety, such as Safer Routes to School, measures to improve public transport waiting areas and interchanges, and road maintenance measures. • Public transport is typically safer than private cars, so promotion of such modes should help to improve road safety. • There is a need to address safety on public transport better.
To achieve a transport system that supports the economy	✔✔	• Generally measures to promote sustainable transport should help to support the economy, by reducing the growth in private car use and hence reducing congestion, which will allow more efficient movement of freight in particular.

APPENDIX 1

APPRAISAL MATRICES OF

DETAILED STRATEGY COMPONENTS

Table A12.4 Strategy – Road and user hierarchies

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	Could concentrate impacts on higher elements of the hierarchy at the expense of minor roads. However, the private car comes low down the hierarchy on major roads which is very positive.
To integrate transport policies with land use policies	✔	The road hierarchy is compatible with land use policies in the Structure Plan. The major thrust of housing policy is to direct development to Cambridge and Longstanton/Oakington which aims to decrease the need to travel, which is then supported by the hierarchy which promotes more sustainable modes over others especially in urban areas.
To encourage means of transport which have less environmental impact	✔✔	This is the aim of the combined road and user hierarchies, so it should have very positive implications in terms of this objective.
To achieve a transport system that is accessible to all	✔✔?	The user hierarchy supports this objective and seeks to promote accessible forms of transport (walking, cycling and public transport) and there is a strong emphasis on non-car owners and those with disabilities. However, in reality rural people may continue to rely on the private car. So whether or not the hierarchy helps to achieve this objective will depend on how the strategy works together as a whole, and also on the Structure Plan policies which are seeking to reduce the need to travel and to locate development in areas where accessible transport will be more easily provided (compared to the more remote rural areas where provision of accessible transport services will always prove challenging).
To achieve a safe transport system	✔	Promotes pedestrians and cyclists well, but they are vulnerable so it depends how this issue is dealt with in the strategy as a whole.
To achieve a transport system that supports the economy	✔	The overall emphasis of the hierarchy should help to achieve a good balance between modes which should help tackle congestion and hence provide an efficient transport system which supports the economy. However, commercial vehicles are given less priority in rural and urban areas, which we flag up as an issue to consider in terms of implications for the economy of Cambridgeshire.

Commentary
The combined use of the road hierarchy, which is a well accepted approach, with the user hierarchy represents a sophisticated approach which provides a good balance between interests. The hierarchy is clearly presented as a concept. Overall it is felt this element of the strategy will help to achieve a sustainable transport system.

Table A12.5 Strategy – Road safety

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	–	
To integrate transport policies with land use policies	–	
To encourage means of transport which have less environmental impact	–	
To achieve a transport system that is accessible to all	–	
To achieve a safe transport system	✔	The evidence presented in the LTP suggests that work undertaken on road safety so far has yielded positive results. The strategy recommends 'more of the same' which should continue to improve safety. However, the safety strategy does not link in particularly well with the rest of the strategy e.g. the user hierarchy and pedestrians and cyclists in rural areas.
To achieve a transport system that supports the economy	–	

Commentary

The strategy says a lot about what has been done in the past and needs to be clearer on new measures. The strategy appears to be somewhat reactive rather than proactive, and there should be more effort to make it anticipatory. For example, it could link in to the user hierarchy to consider the implications for safety of increased cyclists and pedestrians in rural areas. The strategy should also consider safety in relation to new schemes and place more emphasis on designing in safety measures.

Table A12.6 Strategy – Tackling crime

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	–	
To integrate transport policies with land use policies	–	
To encourage means of transport which have less environmental impact	✔	By tackling crime this element of the strategy should help to make certain modes of transport feel safer and more accessible – in particular public transport, so this may encourage people to use such modes of transport which have less environmental impact than private car use. However, whilst referring to security on buses and trains as a perceived problem, there is little reference to initiatives to tackle it.
To achieve a transport system that is accessible to all	✔	Although the programme for tackling crime is not yet available, measures to tackle crime should help to make transport more accessible. Safety from crime should lead to people feeling that certain modes of transport are viable options, rather than being unsafe due to crime or fear of crime.
To achieve a safe transport system	✔	By tackling crime, this element of the strategy should help to make transport feel safer.
To achieve a transport system that supports the economy	–	

Commentary

The strategy for tackling crime appears to propose 'more of the same'. However, there is no programme available yet to allow a full appraisal to be made. The strategy clearly identifies important issues and sets out reasonable objectives, but whilst referring to security on buses and trains as a perceived problem, there is little reference to initiatives to tackle it.

Table A12.7 Strategy – Safer Routes to School

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	The Safer Routes to School initiative seeks to encourage children and parents to use more sustainable modes of transport, such as cycling and walking, which will help to reduce pollution which should help to meet this objective.
To integrate transport policies with land use policies	✔	The aim of the strategy which is to get children to use more sustainable forms of transport should complement and be complemented by the Structure Plan policies which aim to ensure schools are located locally, which will make sustainable forms of transport more viable (e.g. Policy P3/3 which relates to retention of local facilities and services in urban areas, policy P9/4 which relates to secondary and primary schools within the new settlement at Longstanton/Oakington, and Policy P9/9 which relates to infrastructure provision including education).
To encourage means of transport which have less environmental impact	✔✔	The Safer Routes to School initiative aims to encourage children to use sustainable forms of transport such as walking and cycling and should therefore clearly help to meet this objective.
To achieve a transport system that is accessible to all	✔?	Measures to promote Safer Routes to School should help to ensure that parents who cannot drive their children to school feel that their children are not disadvantaged.
To achieve a safe transport system	✔✔	A key element of the initiative is to create a safe environment for children to travel to school. Therefore the initiative should help to meet this objective.
To achieve a transport system that supports the economy	✔	If the trends of the past 10-15 years can be reversed the impact on decreasing congestion could be very significant. The Safer Routes to School initiative aims to encourage children to use sustainable forms of transport such as walking and cycling, which should help to ease congestion.

Commentary

There has clearly been some excellent work done in the past and which continues in the present on this key transport issue, but it is not clear what is planned for the future, for example whether the plan is for 'more of the same' via a continuation of current initiatives. If so perhaps the intentions should be made more explicit. This question may be to some extent answered by the Programme to follow.

Table A12.7 Strategy – Buses

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔/✖	The strategy supports an environmentally sound mode of transport; however, it could be improved by referring to the vehicles themselves – for example, in relation to types of fuel to be used, quiet buses, etc. Bus shelters, buses and associated infrastructure could have impacts on landscapes and the character and setting of historic towns and villages, which must be carefully considered when implementing measures in relation to bus services.
To integrate transport policies with land use policies	–	
To encourage means of transport which have less environmental impact	✔✔	Buses are generally considered to have less environmental impact than car based transport. Therefore this strategy, alongside strategies to promote cycling and walking, should help to achieve this objective. The strategy could perhaps be improved if a greater commitment was made to using more environmentally friendly vehicles such as electric vehicles and vehicles running on LPG.
To achieve a transport system that is accessible to all	✔✔	Buses are accessible to those who don't have cars. The feeder approach to provide bus services linking into the main corridors should also help to achieve an accessible transport system. Other measures such as low floor build up will help to make services accessible to those with disabilities and the elderly.
To achieve a safe transport system	✔/✖	Improved supporting infrastructure such as clear information and well-lit shelters should help to improve safety. However, there is a need to address safety in buses themselves.
To achieve a transport system that supports the economy	✔	Emphasis on measures to promote bus travel are likely to help ease congestion as private car use is reduced (or the increase in private car use is limited). Accessible bus services will also improve physical access to jobs.

Commentary

Overall this is one of the best elements of the strategy, and it is clear on future actions and sets out good criteria on funding. The philosophy of feeder buses is very good, and offers a more durable solution to rural transport rather than trying to provide direct services linking all areas. However, feeder buses will need very good integration and management to set up good time linkages. There are also some caveats in the strategy with regard to financing bus services, which could have implications for the success of the strategy in contributing to a sustainable transport system.

Table A12.7 Strategy – Community transport

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	–	
To integrate transport policies with land use policies	–	
To encourage means of transport which have less environmental impact	–	
To achieve a transport system that is accessible to all	✔✔	Community transport should help to achieve this objective, as it provides flexible transport particularly targeted at those who don't have access to private transport and who may not find conventional transport to be accessible due to location, immobility, etc.
To achieve a safe transport system	✔✔	Community transport provides a greater sense of safety than conventional transport, particularly for more vulnerable sectors of society, for example, the elderly and disabled.
To achieve a transport system that supports the economy	–	

Commentary
Cambridgeshire has an impressive track record with respect to community transport and the approach it is taking is very innovative. The LTP notes that working groups have been set up to develop links between community transport and health, amongst others, which is very encouraging. Hopefully such measures, if successful, will be rolled out across the county. The implementation programme is not yet available so cannot be appraised.

Table A12.8 Strategy – Rail

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	The strategy seeks to encourage a modal shift to rail through better integration and interchanges. If this helps to decrease car use this element of the strategy should help to decrease pollution. Therefore this strategy should contribute to safeguarding the environment.
To integrate transport policies with land use policies	–	The proposed modifications to the Structure Plan refer to a station at Addenbrookes, which should be covered in the LTP.
To encourage means of transport which have less environmental impact	✔	The strategy seeks to encourage a modal shift to rail through better integration and interchanges. Therefore this strategy should contribute to this objective. However, the relatively low level of budget allocated to rail improvements raises questions about how much the rail strategy can achieve.
To achieve a transport system that is accessible to all	✔	The central aim of the rail strategy is to improve integration with other modes, including buses and cycling, which should help to meet this objective.
To achieve a safe transport system	✔	The strategy seeks to integrate rail with other modes which should improve safety, for example good links with buses and taxis to ensure passengers do not have to wait for long periods of time in poorly lit areas. Rail is also a typically safer mode of transport than the private car, so encouraging a modal shift should improve safety.
To achieve a transport system that supports the economy	✔	Emphasis on measures to promote rail travel are likely to help ease congestion as private car use is reduced (or the increase in private car use is limited). Accessible rail services will also improve physical access to jobs.

Commentary

The programme acknowledges that there is little scope to increase rail services in the county over the plan period. However, within these confines the programme is not very ambitious and allocates very small amounts of budget for improvements/interchanges (although it would be interesting to know what the SRA is planning to spend). There is also no mention of the East-West rail link, and although it is outside the realm of the LTP the plan could flag it up and promote it to the SRA.

Table A12.9 Strategy – Taxis

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)		Insufficient detail to appraise
To integrate transport policies with land use policies		Insufficient detail to appraise
To encourage means of transport which have less environmental impact		Insufficient detail to appraise
To achieve a transport system that is accessible to all		Insufficient detail to appraise
To achieve a safe transport system		Insufficient detail to appraise
To achieve a transport system that supports the economy		Insufficient detail to appraise

Commentary
The policies section needs to be clearer on the county/district split in responsibilities (for example, who decides what goes on in the districts, and what work is taking place in the districts?). The strategy sets out good aims, but there is no programme and the strategy seems to rely on other projects outside the LTP. Therefore it is not possible to assess the effects of the strategy.

Table A12.10 **Strategy**

Interchanges and new park and rides (this appraisal concentrates on park and ride as other interchanges, such as a new rail interchange at Chesterton, are picked up in other sections of the appraisal).

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✖?	Park and ride schemes have landtake requirements for car parks which could have implications for landscape and biodiversity. It is also questionable whether park and ride car parks make the best possible use of land. Buses also have impacts in terms of noise and streetscape presence. However, park and ride may help to decrease pollution overall, but this depends largely on how it affects total car use (which is discussed below in relation to encouraging means of transport which have less environmental impact). However, a decrease in the number of cars entering urban areas could help to reduce pollution by decreasing congestion, even if this accompanied by an increase in traffic in rural areas.
To integrate transport policies with land use policies	✔/✖?	Structure Plan policy P8/10 indicates that transport investment priorities include park and ride sites in Cambridge, Peterborough, Market Towns and other locations. However, it is questionable whether such a policy will lead to optimal use of land. The implementation of further park and ride schemes throughout the county might also encourage people to disperse and live outside of Cambridge and its hinterland in favour of the outer villages, which goes against the thrust of Structure Plan policy.
To encourage means of transport which have less environmental impact	✔/✖?	There is some debate as to what implications park and ride has in terms of encouraging transport which has less environmental impact. Research by Parkhurst (1999) found that park and ride may increase car dependence and only produce a modal shift in a small proportion of the total journey (although this evidently depends on the characteristics of the specific scheme, such as how far the site is located from the destination, the catchment area of people accessing the site and so on). The study also found that park and ride may generate some extra trips and may also cause some people to switch from conventional buses or trains, thus increasing car use. However, it is arguable that some degree of increase in rural traffic might be worthwhile if it benefits urban areas (which is likely to be the case in Cambridge and the Market Towns which have small historic centres that are susceptible to congestion). Parkhurst sets out a number of measures which can help to Improve the sustainability of park and ride – discussed in the commentary below – many of which the LTP is promoting.
To achieve a transport system that is accessible to all	✔/✖?	Park and ride is, for the most part, attractive only to motorists and therefore not accessible to all (although the strategy in the LTP does seek to make it accessible to cyclists and pedestrians). Park and ride could potentially undermine the viability of the feeder bus services proposed to feed into major corridor services, which is a concern raised by Parkhurst (1999) in relation to conventional public transport. Therefore a prudent approach would be to pilot new park and ride schemes at locations further out of Cambridge to monitor possible effects on these services. On the other hand there might be opportunities to positively link feeder services to the park and ride schemes, which should be considered. It is also important that park and ride does not undercut conventional services, and efforts should be made to implement pricing systems that favour the use of conventional public transport over park and ride, and then park and ride over the use of the private car for whole journeys.
To achieve a safe transport system	–	
To achieve a transport system that supports the economy	✔/✖?	The LTP notes that existing park and ride schemes serving Cambridge have possibly drawn patronage away from other towns, so the implementation of more extensive schemes serving a wider range of towns could help to reverse this and balance out trade. However, users might use park and ride to access a local town and then use train or bus services to Cambridge or other major centres, such as Peterborough.

Commentary

Over all park and ride could help to achieve more sustainable transport in Cambridgeshire. However, evidence suggests that park and ride might increase car dependency and generate increased trips and also decrease the viability of conventional public transport which would decrease accessibility for non-motorists. Therefore, there is a clear need to study the implications of park and ride in Cambridgeshire, for example through piloting new schemes further out of Cambridge, prior to introducing additional schemes county wide. Nevertheless research suggests that a number of measures can add to the sustainability benefits achieved by park and ride, which the LTP is promoting, for example, the provision of interchanges that are attractive to pedestrians and cyclists and which link with rural bus services and taxi-buses, and efforts to encourage modal shifts earlier in journeys by locating sites further out of towns. Other measures which could help to maximise the benefits include introducing complementary traffic restraint policies, such as congestion charging, pedestrianisation and reductions in town centre parking capacity. It is also important that the pricing of different modes of transport reflects the differential sustainability benefits, for example of utilising public transport for whole journeys compared to park and ride, where there is still a need for unsustainable car use.

Table A12.11 Strategy – Waterways

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	Waterways make a valuable contribution to biodiversity in Cambridgeshire, as noted in the LTP, and the LTP recognises that waterway developments need to consider possible adverse environmental impacts. Provided biodiversity value is taken into account this element of the strategy should help to meet this objective. Water based transport is also a more sustainable less polluting mode of transport for freight than road based transport, so efforts to promote the port at Wisbech and other waterways for freight will help to meet this objective.
To integrate transport policies with land use policies	✔	The strategy supports the Structure Plan policies supporting the use of waterways for appropriate recreation, tourism and economic development and for the transfer of freight.
To encourage means of transport which have less environmental impact	✔	Water based transport is a more sustainable less polluting mode of transport for freight than road based transport, so efforts to promote the port at Wisbech and other waterways for freight will help to meet this objective.
To achieve a transport system that is accessible to all	–	
To achieve a safe transport system	–	
To achieve a transport system that supports the economy	✔	Emphasis on measures to promote transport of freight by waterway are likely to help ease congestion, although it is not anticipated that large numbers of freight movements will be transferred to the waterways. The development of waterways for recreational uses may also help to support the economy by increasing tourism and possibly facilitating economic regeneration, for example around the port at Wisbech.

Commentary
Waterways provide an important recreation resource and can also provide a more sustainable mode of transport for freight. The LTP supports both these aspects whilst recognising that improvements for recreation and/or freight must take into account the biodiversity value of the waterways.

Table A12.12 Strategy – Cycling

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	Cycling is a sustainable mode of transport, which will have no adverse impact on the environment, and will actively contribute to meeting this objective through reducing numbers of motorised vehicles, therefore helping to minimise pollution and the need for new road building to cater for increased cars, with concomitant impacts.
To integrate transport policies with land use policies	✖	The strategy does not attempt to see cycling as a major component of new development proposals. As such it represents a missed opportunity.
To encourage means of transport which have less environmental impact	✔	Cycling is a highly sustainable mode of transport and therefore the strategy will help to meet this objective. However, it is felt that the targets set for Cambridge and the market towns are unambitious, and the opportunities in terms of encouraging residents of new developments to cycle, largely missed.
To achieve a transport system that is accessible to all	✔	Cycling is a highly accessible mode of transport for non-car owners. However, some people would not be able to access it (particularly the elderly and disabled). There is also a safety element to levels of accessibility, with more people likely to regard cycling as a plausible alternative to car or bus travel if clearly separated cycle lanes are provided in areas with fast moving traffic.
To achieve a safe transport system	✔/✖	As noted above there are safety issues surrounding the promotion of cycling. The strategy should clearly define 'parallel routes' along corridors, as it is not clear whether they are separate routes or rural roads. The strategy should also recognise the interaction between cyclists and pedestrians and possible safety implications.
To achieve a transport system that supports the economy	✔	Emphasis on measures to promote cycling are likely to help ease congestion as private car use is reduced (or the increase in private car use is limited). Accessible cycle routes will also improve physical access to jobs.

Commentary

The emphasis given to cycling is a strong point in terms of sustainability with a clear set of targets and a comprehensive, costed programme. However, for a county with significant opportunities for promoting cycling it is felt that this strategy is poor. The targets are unambitious and appear to be poorly thought through. It should be possible to achieve higher levels of cycling in Cambridge (than the proposed 20%), especially as new residents moving to the areas surrounding Cambridge, including the new settlement and Longstanton/Oakington, could be encouraged to cycle. Many Dutch cities have achieved far higher levels of cycling and cycling accounts for 27% of all journeys throughout the country as a whole. Opportunities to provide safe cycling routes for new developments should be promoted. The targets for modal share in market towns should also be set at a more ambitious level.

Table A12.13 Strategy – Walking

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔?	The strategy for walking is rather weak, as discussed in the commentary below. However, if the strategy is strengthened and is successful in encouraging walking, it should help to meet this objective.
To integrate transport policies with land use policies	✔?	There are opportunities to ensure new developments are served by safe, direct walking routes. However, the plan does not fully help to realise these opportunities. In particular the strategy could be improved by promoting measures in relation to new development schemes.
To encourage means of transport which have less environmental impact	✔?	If the strategy is strengthened and is successful in encouraging walking, it should help to meet this objective.
To achieve a transport system that is accessible to all	✔?	If the strategy is strengthened and is successful in encouraging walking, it should help to meet this objective.
To achieve a safe transport system	✔?	The strategy for walking recognises the need to ensure walking is a safe transport choice. However, the strategy should also consider safety in relation to new schemes and place more emphasis on designing in safety measures.
To achieve a transport system that supports the economy	✔?	Measures to promote walking should help ease congestion as private car use is reduced. However, the strategy for walking is fairly weak, and needs strengthening in order to have a significant effect on this objective.

Commentary

The aspiration and the policies are sound in sustainability terms. Overall however the strategy for walking is considered to be weak. There is a need to understand where there are barriers to walking, which requires analysis, although the strategy does recognise the need for more direct routes. In particular the strategy could be improved by promoting measures in relation to new development schemes. Although it is noted that there is more to follow which is, as yet, unavailable.

Table A12.14 Strategy – Mobility management

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	The strategy supports environmentally sound modes of transport, which should help to reduce pollution.
To integrate transport policies with land use policies	✔✔	The LTP recognises that the best time to encourage shifts in travel behaviour is when people move house and have to make new journey choices. Therefore the strategy clearly links measures to influence modal choice with the timing of major new developments identified in the Structure Plan for the Cambridge sub-region.
To encourage means of transport which have less environmental impact	✔✔	The overall aim of mobility management is to encourage the use of sustainable modes of transport through a variety of means, including provision of information, development of travel plans, ticketing arrangements, etc. to make the use of such transport accessible and convenient. Therefore the strategy, which is clear and wide ranging, should help to contribute to this objective.
To achieve a transport system that is accessible to all	✔✔	Measures to increase awareness of and the convenience (including 'mental convenience') of more sustainable modes of transport should help to make such modes more accessible.
To achieve a safe transport system	✔	Better provision of information, such as real time bus information, better coordination of transport and company-based initiatives for example, should help to make people feel that non-car based transport is a safe and convenient option.
To achieve a transport system that supports the economy	✔	Emphasis on measures to promote use of sustainable transport are likely to help ease congestion as private car use is reduced (or the increase in private car use is limited). Accessible sustainable modes of transport will also improve physical access to jobs.

Commentary

This element of the LTP strategy is very strong. Promoting the use of sustainable modes of transport is extremely important and the LTP sets out a clear strategy for implementing a range of measures to increase awareness of and the convenience of more sustainable modes. However, one area which could be emphasised further is the role of travel plans involving large private sector employers, which are mentioned but not fully developed in the strategy. For example, measures should be included in the strategy to implement models similar to the successful scheme at Addenbrookes.

Table A12.15 Strategy – Road maintenance

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✖/–	There are no specific references in either the objectives or the proposals to either the visual impact that road maintenance can have on the urban and rural landscape or the biodiversity effects of rural road maintenance, particularly in relation to roadside verges, trees and hedgerows and highway drainage. Road maintenance programmes are an opportunity to tackle the visual clutter of road signs and other highway furniture. Road traffic air and noise pollution is likely to be ameliorated by well maintained road carriageways. There is also reference to the use of recycled materials (Rethinking Construction) as a 'key theme' but perhaps there could be a specific commitment to this in the Plan with targets attached. Although there is clearly a large backlog of street lighting renewal, the Plan could perhaps acknowledge the increasing concerns surrounding excessive night time light pollution.
To integrate transport policies with land use policies	✔/–	There is a weak positive link into land use policies in that the maintenance strategy seeks to integrate with the broader transport strategies (in particular relating to sustainable transport) which in turn link into the land use policies of the Structure Plan.
To encourage means of transport which have less environmental impact	✔	The maintenance strategy gives relatively high priority to the maintenance of infrastructure for sustainable travel modes ie footways, cycleways and bus priority measures. It also seeks to integrate road maintenance schemes with bus priority measures and cycling and walking schemes. However inevitably much of the maintenance budget is likely to be allocated to the maintenance of a highway network used primarily by the private car and commercial vehicles.
To achieve a transport system that is accessible to all	✔	The importance of a well-maintained highway network to providing high levels of accessibility to all is acknowledged. Priority is also given to addressing the needs of the disabled. There is however little evidence of how these sound aspirations will be translated into action.
To achieve a safe transport system	✔✔	There is considerable emphasis on the crucial importance of highway maintenance, including improved street lighting, to the reduction of road accidents. There could however be more explicit reference to the matching of road maintenance priorities with accident prevention measures.
To achieve a transport system that supports the economy	✔/✔✔	There is a strong acknowledgement of the importance to the local economy of a well-maintained highway system. However there is no mention of the importance of programming maintenance schemes to minimise disruption to economic activity.

Commentary

The emphasis on a coherent maintenance strategy, well connected to the other strands of the LTP is welcomed. The objectives of the strategy are sound in sustainability terms. It would be helpful if the very sound set of objectives could be translated into a more specific set of policies and the programme which is to follow. For example perhaps the 'key themes' under the INTEGRATION section could be translated into firm commitments. Our other main concern is for more attention to be given to the visual and biodiversity aspects of urban and rural highway maintenance.

Table A12.16 Strategy – Bridge maintenance and strengthening strategy

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	–	Unlikely to impact significantly on this sustainability objective. Environmental and biodiversity effects are likely to be very localised. There are a number of 'listed' structures which will be treated as sensitively as funds allow.
To integrate transport policies with land use policies	✔	The ability of the county's road bridges to physically accommodate large public transport and commercial vehicles is an important component of an integrated land use and transport system.
To encourage means of transport which have less environmental impact	✔	The priority given to the needs of public transport, cycling and walking is positive in terms of sustainability. The Plan will be strengthened through reference to specific examples and/or the programme showing specific measures which is to follow.
To achieve a transport system that is accessible to all	✔	It is important that the County's bridges do not impose restrictions on the efficient operation of an integrated transport system, accessible to all and this is recognised in the Plan. The needs of disabled people are also acknowledged.
To achieve a safe transport system	✔✔	Safety considerations are accorded primary importance and underpin the whole approach.
To achieve a transport system that supports the economy	✔	As with other sustainability objectives, the Plan recognises that the physical condition of the County's bridges should not place constraints on the efficient operation of the local economy. Bridges will be maintained so as to be able to carry the heaviest commercial loads.

Commentary

Although the general approach appear sound in sustainability terms, without the inclusion of either targets or a programme it is difficult to make a full sustainability appraisal. The OBJECTIVES section could be considerably strengthened drawing on the principles outlined in the introductory material, particularly in the INTEGRATION section.

Table A12.17 Strategy – Airport surface access strategy

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)		Insufficient detail to appraise
To integrate transport policies with land use policies		Insufficient detail to appraise
To encourage means of transport which have less environmental impact		Insufficient detail to appraise
To achieve a transport system that is accessible to all		Insufficient detail to appraise
To achieve a safe transport system		Insufficient detail to appraise
To achieve a transport system that supports the economy		Insufficient detail to appraise

Commentary

The airport surface access strategy is descriptive text setting out the current situation and possible changes to air transport which may affect the county in the future; it is not a strategy as such, and therefore it cannot be appraised. In terms of sustainability it is important to note the major impacts that air transport can have, through noise, emissions and traffic generation. The LTP must take into account the likely growth of traffic accessing Stansted. A point of clarity relates to the first paragraph of the strategy, which states that there are good rail links to all major airports, which needs clarifying in relation to Luton and Heathrow. The second paragraph refers to 'the airport' which should presumably read 'Cambridge airport'.

Table A12.18 Strategy – Parking and demand management

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	The link between the global warming agenda and this strategy is acknowledged through its emphasis on the encouragement of non-car modes of travel through demand management. We would point to the landscape implications of a significant growth in large park and ride sites in rural settings.
To integrate transport policies with land use policies	✔	There is a strong reliance on Structure Plan transport policies which in turn are linked to land use policies but the role of parking and demand management in relation to the significant new housing developments could be spelt out in more detail.
To encourage means of transport which have less environmental impact	✔/✔✔	The general intentions are strongly oriented towards encouraging public transport, cycling and walking. The emphasis on Park and Ride needs to be checked against the possibility of increased travel by car to Park and Ride sites and the possible adverse impact on patronage on rural bus 'feeder' services. Some reference could be made to the provision of cycle parking.
To achieve a transport system that is accessible to all	✔/✔✔	The strategy aims to promote modes of travel that are accessible to all or most people using parking control as the primary means of managing the demand for car use. The needs of the disabled in parking schemes should be addressed. The Plan states that in the north of the County, demand management will be used to promote social inclusion and enhance accessibility but it does not say how.
To achieve a safe transport system	✔	A reduction in car use is likely to lead to a reduction in road accidents.
To achieve a transport system that supports the economy	✔	The reduction in congestion that results from an effective set of demand management policies will be the major benefit to the local economy, as will improved public transport services for the local workforce. The Plan acknowledges that sub-regional economic disparities may need to be addressed using parking and demand management (amongst other things) but it does not say how.

Commentary

This strategy is strongly oriented towards sustainability in its general approach but the Objectives, Targets and Programme need to translate these general aspirations into more specific intentions. The policies section is heavily reliant on the relevant policies in the Structure Plan, which are necessarily broad in scope. Should not the policies in the LTP represent a refinement of the Structure Plan policies, demonstrating their detailed application? The two contemporary issues of most interest – the Workplace Parking Levy and Road User Charging – are not addressed. Perhaps they ought to be even if only o provide a well argued case for their rejection, at least for the near future.

Also we suggest that the current state of play in the development of the market towns parking strategy should be spelt out.

Table A12.19 Strategy – Powered two wheelers

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔/✖	The LTP recognises that some powered two wheelers are just as polluting as cars, whilst smaller vehicles have lower emissions, therefore the impacts of this element of the strategy are uncertain. Powered two wheelers can also have impacts in terms of noise.
To integrate transport policies with land use policies	–	
To encourage means of transport which have less environmental impact	✔/✖	As noted above some powered two wheelers are just as polluting as cars, whilst smaller vehicles have lower emissions. Therefore provision of facilities for scooters (e.g. parking areas) could help to encourage an accessible and less polluting mode of transport, but larger powered two wheelers which are, to some extent promoted, will not help to meet this objective.
To achieve a transport system that is accessible to all	✔	Powered two wheelers could provide a more accessible form of transport for some members of the community, for example young people who cannot afford to run a car.
To achieve a safe transport system	✖	Powered two wheelers have very high accident rates compared to other modes of transport. Therefore it may not be advisable to promote this mode of transport. However, the strategy does seek to implement measures to ensure safety is improved where possible, for example through road surfacing, signage and design of roads and junctions.
To achieve a transport system that supports the economy	✔?	Measures to support powered two wheelers may help to ease congestion, and could also improve physical access to jobs for some members of the community.

Commentary

The LTP as it stands promotes powered two wheelers. Although there are recognised benefits of powered two wheelers, for example, providing transport for those without access to a car, we suggest that their very poor safety record and the noise pollution created in both city centres and during their use in countryside recreation deserve more attention in the policies. For example safety awareness campaigns could form an important component of the strategy. It is recommended therefore that the strategy should accommodate but not promote powered two wheelers.

APPENDIX 2

APPRAISAL MATRICES OF

EXPENDITURE PROGRAMME

Table A12.20 Programme – Corridor programme

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔✖	Depends on sensitivity of locations in which schemes take place and the mitigation measures implemented. Highways schemes, Rapid Transport and park and ride are key schemes which could have impacts (these schemes account for 68% of total expenditure in the corridors). The other schemes could however alleviate further pressure on the need for major infrastructure schemes.
To integrate transport policies with land use policies	✔✔	The previous Structure Plan allowed for much more dispersal of development than the current Structure Plan and the corridor approach and highways schemes are supporting this pattern of development. The Rapid Transit is much more closely linked to the new Structure Plan and the settlement at Longstanton/Oakington.
To encourage means of transport which have less environmental impact	✔✔✖	Measures which should contribute to this objective (not including park and ride as the implications of this scheme are uncertain, for example in terms of whether it will increase car use), account for 66% of total expenditure in corridors. However, highways schemes, and as mentioned, park and ride, could lead to some increase in traffic, at least outside of Cambridge.
To achieve a transport system that is accessible to all	✔✔	As above, around 66% of total expenditure in corridor schemes are encouraging public transport, cycling (cycling receives quite a high level of expenditure which is very encouraging) and walking.
To achieve a safe transport system	✔	The programme of expenditure for corridors promotes intrinsically safer modes of transport and specifically addresses safety.
To achieve a transport system that supports the economy	✔	The corridor programme should help to decrease congestion, and provide alternative modes of transport to access jobs.

Commentary

There is little detail provided in the programme. Therefore we have looked broadly at where the money is going. We have categorised expenditure and have allocated each category a broad relative sustainability 'rating' of high, medium or low (in brackets after each category) as follows: traffic calming measures (medium), highway schemes (low), station improvements (high), CHRT (high), park and ride (medium), cycle schemes (high) and other elements. Overall schemes rated as being highly sustainable account for around 69% of expenditure which is very encouraging. Schemes rated of being of medium sustainability account for 9%, and schemes considered to be of relatively low sustainability merit account for 22% (highways schemes). A significant amount of expenditure is also going into schemes which could have environmental impacts (of which CHRT falls into both being potentially highly sustainable but also having the potential to cause significant environmental impacts) and which will have to be carefully implemented to minimise impacts e.g. on biodiversity and landscape.

Table A12.21 Programme – Connections

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)		Insufficient detail to appraise
To integrate transport policies with land use policies		Insufficient detail to appraise
To encourage means of transport which have less environmental impact		Insufficient detail to appraise
To achieve a transport system that is accessible to all		Insufficient detail to appraise
To achieve a safe transport system		Insufficient detail to appraise
To achieve a transport system that supports the economy		Insufficient detail to appraise

Commentary

65% of the spend on the connections element of the programme is allocated to 'various transport improvements', which means that it is very hard to comment on this element of the programme. The level of definition for each scheme is also insufficient, for example, what is meant by 'rural south' (presumably this is a community transport measure)? Overall 39.4% of spend is allocated to connections, however, it is not clear how much will provide sustainable and accessible connections (although some clearly will such as the expenditure on community transport, but this is a very small element of the programme). Other significant expenditure in this element of the programme is accounted for by park and ride, which as noted previously is not necessarily accessible to all and may cause increased car use.

Table A12.22 Programme – Cambridge

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)		Insufficient detail to appraise
To integrate transport policies with land use policies		Insufficient detail to appraise
To encourage means of transport which have less environmental impact		Insufficient detail to appraise
To achieve a transport system that is accessible to all		Insufficient detail to appraise
To achieve a safe transport system		Insufficient detail to appraise
To achieve a transport system that supports the economy		Insufficient detail to appraise

Commentary
Spend is dominated by spend on 'access to Cambridge's needs' (80%) and it is not clear what this is. If it is referring to measures to encourage walking, cycling and public transport from the proposed developments in the Structure Plan then significant sustainability benefits could arise. Many of the other measures also appear to be positive in sustainability terms, for example, the traffic restraint plan and bus priority measures.

Table A12.23 Programme – General

Overall sustainability objective	*Compatibility*	*Commentary*
To safeguard the environment (landscape, biodiversity, pollution etc.)	✔	This element of the programme encourages more sustainable modes of transport which should decrease pressure to develop major schemes especially for the car, hence helping to reduce pollution and potential impacts associated with major infrastructure development.
To integrate transport policies with land use policies	✔✔	Landuse policies aim to decrease travel by car and the awareness programme supports this from the outset by targeting new developments to encourage use of sustainable modes of transport.
To encourage means of transport which have less environmental impact	✔✔	This is the thrust behind this element of the programme of expenditure.
To achieve a transport system that is accessible to all	✔✔	Again, this is a key objective behind this element of the programme.
To achieve a safe transport system	✔✔	Safer routes to school is a very important initiative in the light of recent trends.
To achieve a transport system that supports the economy	✔	Assuming these measures are successful, they should help to decrease congestion and hence help to achieve a transport system that supports the economy.

Commentary
The expenditure in this element of the programme is going to very commendable schemes to increase awareness and safety, which should help to promote the use of more sustainable modes of transport. As such it is a key element of the programme, and very important in ensuring that new measures to improve cycling, walking and public transport are recognised and utilised by the public.