Application for Development Consent to complete the Heysham to M6 Link Road

Reference TR010008

Written Representation

Unique reference no: 10015136

INTRODUCTION

This is a personal submission by Alan James in objection to the application by Lancashire County Council (LCC) to complete the Heysham-M6 Link (HM6L). I have previously represented Transport Solutions for Lancaster and Morecambe (TSLM) professionally, but am not doing so at present though I have advised TSLM and other objectors (notably CPRE and NWTAR) on their submissions. I endorse the main areas of objection by these groups, but my personal objection is focussed on specific issues, mostly concerned with the assessment of alternatives. This overlaps with other submissions, but all seek to minimise duplication in the interest of efficient examination.

The three related strands on alternatives are that:

1. The 2007 inquiry Inspector's report and recommendation should not be regarded as having definitively established the need for the scheme
2. The elimination of the western route was based on a flawed appraisal of impacts on the Morecambe Bay SAC/ SPA, which means that the confirmation of a northern route as the only possible road solution is unsound.
3. The possibility of a solution not involving major road construction has never been meaningfully assessed, because LCC has had an unwavering policy ambition to build a link road since at least 1949.

A fourth and separate issue which I wish to cover is the reliability of current scheme costings, which as I understand was accepted by the Examining Authority (ExA) at the Preliminary Meeting on 3 April 2012 as a valid subject for the Examination.

I wish to make clear at the outset, in particular with reference to point 2 above, that I do not support any new major road link scheme. My view is that a solution to such access problems as exist for the Morecambe/ Heysham peninsula can be found in sustainable transport measures which reduce traffic demand, at most supported by minor improvements to the local road network. This view is reinforced by recent evidence (presented by others in this Examination) that:

- Traffic volumes on the local road network have declined since 2001, and the volume of traffic forecast to use the link road has gone down by 20-30%.
- Forecast journey time savings offered by HM6L went down by at least 40% between the 2005 and 2009/10 modelling. They are now within the order of magnitude of daily variation, so are unlikely to affect either travel decisions or levels of real economic benefit.

1.0 2007 INQUIRY

1.1 LCC claimed during the IPC consultation that the route of the HM6L was now fixed and was not subject to any further consultation: see for example the Statement of Community Consultation Supporting Information, June 2011, p6, under the heading 'Fixed Design Parameters':

> *The following elements of the design will not be open for consultation or change for the reasons stated.*
> ***Route & road type***
> *The route of the proposed Link Road has been determined following extensive public consultation over the previous decades; set out in Appendix B.* ***The route was formally approved and accepted by the Secretary of State in February 2008 following a five week Public Inquiry****. Whilst the application to the IPC is a full application for the whole scheme; the proposed development already benefits from an existing planning permission. Having fully consulted on the route alternatives previously, neither the selected corridor nor the general alignment of the road within that corridor can be a subject for change.* (my emphasis)

1.2 This flatly contradicted the advice given by the IPC to LCC on 22 March 2011 (Meeting Note), that *"the ExA can take any issue/ policy they believe to be relevant into account when examining an application"*: and the Rule 6 and 4 statement, 12 March 2012, confirms that the ExA has identified as a Principal Issue *"The extent to which the history by which the DCO scheme has arisen determines the general nature of the scheme and its alignment".* This suggests that the scheme history is not yet regarded by the ExA as having established a corridor and alignment that cannot be changed. Equally, it is clear from LCC's stance during the IPC consultation that they wish to promote a case that the 2007 inquiry and subsequent approval of the scheme by the SoS draws a line under that discussion.

1.3 The 2007 inquiry Inspector's conclusions, whilst material to the present Examination, are no longer binding, as the planning permission to which they relate is for a development that is no longer being pursued. As well as the important consideration of changes in both the scheme and its context since 2007, which are the subject of several other written submissions, there is an opportunity now to re-examine the logic by which the recommendation to approve the previous application was reached.

1.4 The 2007 inquiry Inspector's overall line of argument was that:

- There is a problem of accessibility to the Morecambe/ Heysham peninsula
- The problem cannot be solved without a new link road to the M6
- A western route is ruled out because of insuperable problems of impact on nature conservation interests of European status
- The link road therefore has to be on a northern route
- Nobody has suggested any alternative northern routes
- Therefore the proposed scheme should be approved

(Inspector's Report section 8.3: IR 8.3.11 states the problem; 8.3.26 contains the conclusion that a road is needed, for the reasons argued from 8.3.12 onwards; 8.3.6 and 8.3.7 rule out the western route; 8.3.2-8.3.4 rule out alternative northern alignments)

1.5 I contend that this line of argument is questionable in three respects, discussed in turn.

1.6 **WebTAG**

The assessment of the scheme bore almost no resemblance to WebTAG guidance, which requires identification of options in a single systematic study, and subsequent assessment on a consistent basis using ASTs, without a preconceived preferred outcome, leading to a preferred option with an audit trail explaining the rejection of other options. This is the subject of a separate Written Representation (NWTAR), so is not fully discussed here. The main points to note here are firstly that in spite of TSLM having presented a proof of evidence largely about WebTAG and optioneering, the 2007 Inspector made no reference to this in his entire report; and secondly, the only systematic comparison of options was with a 'next best option' – the western route – that was deemed unbuildable and therefore was not assessed further (by definition it could not have been the next best option!), and a very strange 'Lower Cost Alternative' which did not emerge from a pool of contenders and did not fulfil the purpose of LCAs as defined by guidance. In the absence of systematic assessment as required by WebTAG, there was no basis to conclude that the problem could not be solved without a link road, or that there were no other road options.

1.7 **Western Route**

The Inspector's conclusion that a western route could be ruled out was expressly based on the argument that either western route *"would not be buildable"* (IR 8.3.6) because of nature conservation considerations which would have rendered a western route *"unlawful"* (IR 8.3.7). This conclusion stems from Frances Patterson QC's legal opinion of 2004, that:

"In the light of ... an array of conflict with EC legislation and national legislation as a result of the Consultant's findings as set out in their report, I would regard the choice of the Green (Western) *route not only as extraordinary but as one that was perverse on the part of the County Council. It would be a decision lacking in logic and one that no reasonable planning authority properly directing itself could come to*
(Quoted in 2005 MSBC, C 2.5, Appendix C para 27)

This opinion is forthright and apparently persuasive, but on closer analysis it is only as good as "the Consultant's findings as set out in their report", since that is the source document on which the opinion is based. This issue is discussed in full detail in section 2 below, but in summary the case against this opinion is that the consultants did not identify any impacts on the Morecambe Bay SAC/ SPA in the terms required by the Habitats Directive[1] to trigger an assessment of the availability of alternative routes under Article 6 of the Directive.

As well as being an important issue in its own right, this impacts on the Inspector's conclusions on Green Belt. The argument was put to him that a development agreed to be

[1] Section 1.4.1 of the document 'Managing Natura 2000 Sites', published in 2000, clarifies that the provisions of Articles 6(2), (3), and (4) replace the equivalent provisions of Directive 79/409/EEC which established SPAs for protection of bird species: *"As regards the provisions of Article 6(2), (3) and (4), it is clear from the terms of Article 7 that these now apply to already classified SPAs"*. In the discussions in section 2 of this submission this is taken as read, and references to the SAC/ provisions of the Habitats Directive should be taken to encompass the SPA and the conservation objectives for bird species in Annex I of the Birds Directive 1979 (the 1979 Directive has itself been repealed under Article 18 of the Birds Directive 2009/147/EC Nov 2009, but the status of SPAs is understood not to have changed under the new Directive)

inappropriate development in the Green Belt could not proceed if there was an available alternative, which there was (in Green Belt terms) in the western route. However, if the western route could not go ahead because of impacts on the SAC if there was an alternative route, which there was (in SAC terms) in the northern route, this meant that the two routes cancelled each other out for different reasons, so neither could go ahead. In that case, the only type of option that would satisfy both criteria was a non-road option, possibly with on-line improvements, as favoured by TSLM and other objectors.

The Inspector rejected this argument (IR 8.5.8), on the grounds that the legal prohibition of development having an adverse effect on a designated European nature conservation site outweighed guidance on inappropriate development in the Green Belt. Although I accept in principle that a breach in law would trump a breach in guidance, I have always found this conclusion questionable, as it pits a precautionary approach to avoid possible but unspecified impacts on the SAC against the unquestionable direct and major impact of inappropriate development on the Green Belt (even though the Inspector attempts – rather unsuccessfully in my view - to play down the impact on the Green Belt as not being unacceptably harmful even though it is inappropriate). Now that I am more certain that the impacts on the SAC have not been adequately assessed, the argument of harm to the SAC outweighing inappropriate development in the Green Belt is weaker still.

1.8 **Non-road options**

The 2007 inquiry Inspector makes an assertion with which I fundamentally disagree, that it was up to the objectors to demonstrate that options not involving a link road would work, rather than up to LCC to demonstrate that they would not work. In IR 8.3.14 he states:

ESTA/TSLM believe that alternative measures could alone effect a resolution. I accept that ESTA/TSLM do not have the necessary financial or other resources to carry out the modelling and the other full assessments necessary to put together a detailed alternative package of measures. Nevertheless, the burden of establishing the truth of a proposition rests with its propounder.

I have worked on over 20 planning and Orders inquiries, and have not otherwise come across a situation where the onus of proof on the balance of probability was on the objectors rather than the promoters. Had WebTAG been followed, there would have been an audit trail of rejected options, including non-road options with reasons for rejection, and objectors could have made reasoned arguments to test the validity of LCC's reasoning. As it was, it appears that it was up to objectors to devise, promote, and defend their alternatives, starting from a blank sheet.

The problem with non-road options, as discussed in section 3 below, is that LCC has always assessed the problem of access to the peninsula in the context of a live policy ambition to build a link road. This is made clear in the opening paragraphs of the 2011 ES, paras 1.1.1-1.1.4, which clearly express the virtue of a consistent approach over more than 60 years. The 2007 inquiry was conducted from the standpoint that the road was needed, though other complementary measures could also play a part, and the Brief for the Faber Maunsell report was couched in those terms. There has never been a dispassionate, objective assessment of just how much could be achieved without building a new link road.

1.9 For these reasons alone, primarily in relation to alternatives to the promoted route, the 2007 inquiry cannot be regarded as having done what LCC claims, and established the route corridor and alignment as the basis for the current scheme.

2.0 WESTERN ROUTE

2.1 This section is mainly about the assessment of the Morecambe Bay Special Area of Conservation/ Special Protection Area (SAC/SPA: referred to from now only as SAC - see Note 1 above). Frances Patterson's legal opinion refers to an array of conflict with European legislation, but it is the SAC which differentiates the northern and western routes. There is an array of conflicts with protected species – otters and bats - on the northern route as well, including issues relating to otter holts, and the illegal destruction of bat roosts under Article 12 of the Habitats Directive without having satisfied the Article 16 tests for derogation[2].

2.2 At the outset, it is worth quoting the relevant sections of Article 6 of the Habitats Directive, which governs the assessment:

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

2.3 The meaning of some of the terms used in the Directive are defined in European guidance, either in the document 'Managing Natura 2000 sites (published 2000) or in additional guidance on section 6.4 published in January 2007.

2.4 The key points to note for the purposes of this submission are that:

- The process of assessment is a series of steps: 6.3 is gone through before 6.4 arises (Managing Natura 2000 sites, section 4.2)
- The assessment under Article 6(3) relates to the site's 'conservation objectives', which are defined in 4.5.3 of 'Managing Natura 2000 sites'[3]:
  The format requires that all Annex I habitat types present on a site and all Annex II species occurring at the site should be mentioned in the appropriate place in the data

[2] This was to have been covered in the TSLM submission on Ecology, but last minute difficulties have prevented this: see Appendix 1 to this submission for a summary of the issues.

[3] Also applies to Annex 1 bird species for SPAs, see Note 1

form. This information forms the basis for a Member State establishing 'the site's conservation objectives' ... The reason for a site's inclusion in the network is evidently the protection of those habitats and species.
These are sometimes termed the site's 'qualifying interests' ie the habitats or species in Annexes I and II (and SPA Annex 1) that were the reason for designating the site.

- The integrity of the site is covered in 4.6.3 of Managing Natura 2000 sites, which begins by stating that "*It is clear from the context and from the purpose of the directive that the 'integrity of the site' relates to the site's conservation objectives".* It then provides a working definition of integrity as " '*the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified*' "

2.5 The ADAS report on which Frances Patterson's opinion was based failed in four crucial aspects of its assessment of impacts on the SAC

1. It failed to specify in any detail what it thought the actual impacts on the SAC might be
2. It failed to relate impacts to the ***conservation objectives*** of the SAC designation
3. It failed to address the test of whether the impacts, even to the extent that they might have affected the conservation objectives, affected the ***integrity*** of the SAC as defined above
4. It moved to the question of availability of alternatives without having established whether there was any need to look at them by means of an appropriate assessment – in other words, without having established whether the integrity of the site was significantly affected ***in relation to*** its conservation objectives

As a result, the assessment incorrectly invoked the existence of the northern route as a reason to discard the western route without further ado. From there it was a short step to Frances Patterson's legal opinion, and from there another short step to LCC describing it as "unbuildable".

2.6 The Morecambe Bay SAC extends from the Lune Estuary downstream of the western route crossing of the Lune, across the whole of Morecambe Bay and to the Duddon Estuary on the western side of the Furness peninsula. Most of the SAC is also one of two SPAs (Morecambe Bay and Duddon Estuary). A detailed map can be found at
http://www.morecambebay.org.uk/PDF/EMS/DuddonMorecambeBaySAC_SPA.pdf

2.7 The qualifying interests/ conservation objectives of the SAC are detailed at
http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013027 , and are all Annex I habitat types apart from Great Crested Newts for which the citation is for "*The site, located on the southern shore of the Duddon estuary"* (this does not mean that GCN are necessarily absent elsewhere in the SAC, only that they are a not a reason for the SAC designation elsewhere). The main habitat types are estuaries, sand and mudflats, shallow inlets and bays, stony banks, saltmarsh, and (predominantly if not exclusively on the opposite side of the Bay) a variety of dune habitats including the only priority habitat at Sandscale Haws on the Duddon Estuary. The qualifying interests/ conservation objectives of the SPAs are detailed at
http://jncc.defra.gov.uk/page-1982 , and include a wide range of seabirds, overwintering species, migrants, waders, and waterfowl.

2.8 There is no doubting the importance of the Morecambe Bay SAC, but the question that has to be asked is the extent to which a development primarily affecting the Lune Estuary and not actually encroaching on any part of the SAC, might significantly affect the site in terms of the integrity of the SAC as a whole in terms of its conservation objectives (noting the definition of integrity quoted in 2.4 above, third bullet, and that Article 6(3) expressly uses the word 'significant'). In principle, there are two ways in which a western route in the vicinity of the Lune Estuary could affect the integrity of the SAC in relation to its conservation objectives:

- Although the main impact is likely to be on the Lune estuary in the vicinity of the route, there might be a mechanism by which the impact could be more widely distributed: for example, pollution or sedimentation could be carried by the river current into open water and around the bay by tidal currents.
- The Lune Estuary could be a prime or even sole example of one of the habitats for which the SAC was designated, or the main habitat for bird species for which the SPA was designated, or could have a specific role in the ecosystem such that any damage would have an effect on the functionality of the wider ecosystem of the SAC out of all proportion to the size of area affected

The central problem with the ADAS report is that it does not ask that question, and it does no more than speculate on the possible impacts on conservation objectives.

2.9 The ADAS report on which Frances Patterson's opinion was based is titled 'Ecological Justification Of Western & Northern Routes As Alternatives For The Completion Of The Heysham To M6 Link', dated July 2004 (reference in 2011 ES Vol 1 Part A para 4.1.21). The ADAS report is submitted along with this Written Representation. It makes a fundamental error early in the Executive Summary by referring to *"The Lune Estuary European Protected Area"* (p1 second last paragraph of 1.1.1). Notwithstanding that an earlier reference correctly identifies the (then) candidate Morecambe Bay SAC, this slip suggests that the mindset of the consultants is very much focussed on impacts on the Lune Estuary.

2.10 The ADAS report identifies four potential types of impact (section 4.1.1):

- Impacts on the salt marsh in the Lune Estuary potentially occurring as a result of *"construction etc"* and *"subsequent effects of the bridge piers on the erosion and accretion of salt-marsh in the estuary*" (p9 first para)
- Erosion of the walls of the Salt Ayre landfill site upstream of the bridge leading to release of toxic waste into the river and thereby the SAC
- Impacts on various protected bird species, through disturbance and pollution from the road
- Increased recreational activity due to the Estuary being more visible to travellers on the new road

2.11 I would suggest that the second and fourth of these are spurious. No plausible mechanism is given to explain why a feature *upstream* of the bridge might be affected in this way, and it is not credible that any such risk would not be strenuously safeguarded by both the construction operators and the waste authorities. The assertion of increased recreation activity is just that – an assertion not backed up by any evidence that it would happen or that the level of increase would impact on the site's conservation objectives. This assertion

needs a lot more evidence to back it up before it can be taken seriously. An at least equally plausible null hypothesis would be that the road would lead to a decrease in recreational activity on the estuary by reducing its attractiveness: but whether either scenario would make the slightest bit of difference to the conservation objectives of the SAC is unproven.

2.12 The possibility of changes to erosion and accretion of salt marsh in the Lune Estuary downstream of the bridge is at least a plausible hypothesis, but:

- There is nothing to say that the bridge piers had to be within the river, and if they were not in the river they would not affect river currents except possibly in extreme floods (on which there is no information)
- The ADAS report itself acknowledges that *"change in erosion and accretion occurs naturally"* (p9 second para): yet it asks us to believe that unspecified changes in the way change may or may not occur due to bridge piers that have no need to be in the river, are likely to result in impacts that *"are predicted to range from at least minor to potentially moderate in significance".* On what basis is this prediction made?
- There is no attempt to assess the hypothetical changes to the Lune Estuary salt marsh in the context of salt marsh as a conservation objective of the SAC: no attempt to assess whether salt marsh would remain at favourable conservation status in the SAC as a whole should any changes happen, and no attempt to assess whether *'the coherence of the site's ecological structure and function, across its whole area',* in other words its integrity, is affected.

2.13 Similar problems arise with impacts on bird species that are SPA conservation objectives. The ADAS report lists the types of species and the types of potential disturbance, then moves on to observe that "*The majority of the bird species recorded using the marsh within the cSAC/SPA and the surrounding fields beyond its boundaries are relatively common and adaptable species, which may find alternative foraging areas once the scheme is complete. Other species using these areas are not common and would not necessarily be able to adapt to the disturbance introduced by the Western Route"*. Not a single species is mentioned by name, and there is no evidence from the numerous studies of disturbance of birds to support the decidedly weak contention that the disturbance implied by a western route would significantly affect local bird populations. There is also no evidence on whether the species purportedly unable to adapt would be able to go elsewhere within the SAC or be lost to the SAC; or, if losses were to be attributed to disturbance in the one discrete part of the SAC whether this affects the viability of the population of those species in the SAC as a whole.

2.14 Article 6(3) of the Habitats Directive requires 'appropriate assessment' of the implications to the site's conservation objectives of any project not directly connected to the site and likely to have a significant effect thereon. This is done in order to enable the competent authorities to ascertain whether or not the project is likely to adversely affect the integrity of the site. This has three consequences in the present discussion:

- Adequate appropriate assessment under Article 6(3) requires to be done in the light of the best scientific evidence available. This is made clear in section 1.3 of the additional guidance on Article 6(4) issued in 2007:
  Ensure quality of appropriate assessment under article 6 (3)
  Appropriate assessments of the implications of the plan or project for the site concerned must precede its approval and take into account the cumulative effects

which result from the combination of that plan or project with other plans or projects in view of the site's conservation objectives. This implies that all aspects of the plan or project which can, either individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.

The guidance 'Managing Natura 2000 sites' further states (4.5.1) that:

A corollary of the argument that the assessment should be recorded is the argument that it should be ***reasoned****. Article 6(3) and (4) requires decision-makers to take decisions in the light of particular information relating to the environment. If the record of the assessment does not disclose the reasoned basis for the subsequent decision (i.e. if the record is a simple unreasoned positive or negative view of a plan or project), the assessment does not fulfil its purpose and cannot be considered 'appropriate'.*

The ADAS report does not perform well on either of these criteria

- It is not for the consultant to determine whether the appropriate assessment indicates a likelihood of significant implications, but for the 'competent authorities'.
- The provisions of 6(4) on the availability of alternatives, comes into play only when a conclusion has been reached by the competent authorities that an adverse effect on the integrity of the site cannot be ruled out.

2.15 The ADAS report refers (p10 third para) to "*appropriate assessment (as is being undertaken)"*, the implication being that at the time of the report an appropriate assessment was under way. This assessment, if ever completed, does not appear to have seen the light of day. Whether it did or not, it is clear that ***the appropriate assessment does not form a part of the ADAS report on which Frances Patterson's legal opinion was based***. The decision moved on to the question of availability of alternatives, without reference to an appropriate assessment which was reported to be still "being undertaken". The western route was deemed unbuildable from this point onwards, leading to the 2007 Inspector's conclusion that any western route would be unlawful.

2.16 The evidence presented here shows that ADAS did little more than scope a list of possible impacts on the SAC/SPA, then say that because these possibilities existed and there was an alternative route anyway, there was little point in trying to continue promoting a western route. It is submitted that this does not constitute the rigorous and systematic approach required by the Habitats Directive and its guidance documents.

2.17 This is unacceptable in its own right, but becomes more so when the flawed approach taken in the ADAS report becomes the reason for adopting the alternative northern route as the only road option that avoids impact on the Morecambe Bay SAC, with all the impacts incurred as a result (though he recommended approval of the scheme, even the 2007 inquiry Inspector concluded that "*a new road along the northern route would have a number of residual adverse impacts, some of them substantial"* (IR 8.3.7). In particular, the argument that inappropriate development in the Green Belt was outweighed by impacts on the Morecambe Bay SAC is called further into question when the evidence on the existence and significance of any such impacts is so weak.

2.18 The consequence of this is that the northern route cannot be confirmed as preferable to the western route, because:

1. The primary reason for this conclusion, that the western route had impacts on the SAC which would render it unlawful, is unsound.
2. This primary reason became the grounds for excluding the western route from further assessment as the next best option in the 2005 MSBC, as a result of which it was not assessed on the multitude of criteria that inform a properly conducted NATA assessment using WebTAG. We cannot conclude whether a western or northern route would have emerged as the preferred route on all the other criteria, because the evidence was simply not presented.

This is not to say that evidence indicates that the western route should have been preferred to the northern route: rather that there is insufficient evidence on which to base a decision either way, so the decision to promote the northern route is unsound.

2.19 In the absence of any such evidence, including real reasoned evidence on the likely impacts on the conservation objectives of the Morecambe Bay SAC, the DCO for the current scheme should not be confirmed.

3.0 NON-ROAD ALTERNATIVES

3.1 WebTAG Unit 2.1 (The Overall Approach: the steps in the process) contains the succinct statement that "*Generally options that reduce the need to travel are likely to be more sustainable than those that cater to travel demand.*" (para 1.6.2). A more sustainable approach is to start with measures that reduce travel demand and distances travelled, and promote walking, then cycling, then public transport; then assess how far it is possible to go towards solving identified transport problems in these ways before moving to consideration of new infrastructure for road transport. Even if new infrastructure is deemed necessary, there are many levels of intervention that can be considered before the ultimate intervention of a completely new road at significant financial and environmental cost.

3.2 LCC have gone about the transport strategy for the Lancaster/ Morecambe area in exactly the opposite way. It identified the need for a link road some 60 years ago, has retained this as a policy ambition ever since, and never moved beyond regarding sustainable transport measures as adjuncts to the link road. This was most recently demonstrated with the Faber-Maunsell report (July 2008) on complementary measures, where the Brief states as the starting point the assumption that the HM6L would be built, even though the report was commissioned before the 2007 inquiry.

3.3 A report for TSLM by me in September 2010 looked in Section 5 at what could be achieved with Faber Maunsell (FM) measures without the assumption of the HM6L having been built. This section of that report is contained in Appendix 2 to this Written Submission, and contains most of what I wish to present in this section.

3.4 An initial key observation was that, contrary to the assertion that the road was needed to free up space on the existing road network for the complementary measures in FM, LCC were unable to come up with a single example of where this was the case. In some cases where FM measures were proposed (for example Dalton Square in Lancaster) the traffic modelling showed increases in traffic with the link road in place.

3.5 The report to TSLM suggested, although it was no more than a preliminary exploration, that a package of some measures from FM would be able to deliver a reduction in congestion and thereby improved accessibility, at a cost of around £30 million at 2008 prices, compared with the then cost of £139 million for HM6L. This would still have been a significant LTP Major Project, and would still have involved some infrastructure, but would have saved £100 million in scheme costs at the time when government was seeking to reduce capital costs in the Comprehensive Spending Review, and would have significantly reduced levels of environmental impact.

3.6 There is considerable evidence, for example in monitoring reports on the effectiveness of Travel Plans, and in the Sustainable Transport Demonstration Towns project, that 'soft measures'/ 'smarter choices' are effective in reducing travel demand by car. The 2004 Smarter Choices report itself, as a supporting document for the 2004 Transport White Paper, reviews the extent to which soft measures can reduce traffic and concluded that 10% reductions were readily achievable with concerted measures that included traffic restraint, and 20% challenging but not unrealistic. The degree of modal shift that is achievable is often underestimated, but to give one example, if Lancaster were to achieve the levels of

cycle commuting achieved in York the modal share of car commuting would drop by around 17 percentage points.

3.6 The efficacy of travel demand reduction measures is enhanced by the extent to which traffic volumes have dropped in the Lancaster area in recent years as detailed in other submissions to the Examination. It would be self-evidently more difficult for demand management to reduce traffic by say 30% at peak hours, if that were what is assessed as necessary to address congestion problems, than to reduce a lower level of traffic by 10%.

3.7 One of the problems with LCC's approach is that there is no assessment of what would constitute a significant level of traffic reduction on the existing network, to support a justification for HM6L (or indeed any other option). The assertion is merely that demand management measures on their own will not achieve enough so the link road is needed. In fact, the link road achieves relatively little by way of congestion relief: the Heysham Forecasting Report (Feb 2011) Table 8.8 puts the difference between DM and DS in total network travel time in the AM and PM peaks, at 3.3% in the opening year and no more than 4-4.5% even 15 years on. This, and the discouragement of induced traffic, were amongst the reasons why the 2007 Inspector recommended the preparation of a package of complementary measures as a planning condition.

3.8 There is one further specific argument that demand management cannot be applied to freight traffic to the Port, so would not meet one of the primary purposes of the scheme. The extent to which HGVs are likely to be affected by peak hour congestion is the subject of a TSLM submission on the Port of Heysham, which concludes among other things that few HGV movements need to be in peak hours and time savings outside peak hours are not significant. It is also notable that the claimed peak hour journey time savings with the link road compared with DM, even on the most directly improved route from J34 to the Port, almost halved between the 2005 and 2010 modelling exercises, and are now in the region of 4-6 minutes (EIR 2007 and 2010 reports, comparison of Tables 5.3 and 5.4). In any case, the demand management strategy would be to reduce demand for car journeys which would – to the extent that congestion is a problem for HGV movements anyway – 'free up' the road network for HGV usage.

3.8 My proposal is to start with the 'complementary' measures on their own and see how far they address the identified problems, before embarking on a costly and environmentally damaging link road. This would seem to be not only more sustainable but also more sensible in the current age of austerity.

4.0 COST SAVINGS

4.1 As part of the Comprehensive Spending Review in 2010 LCC were required to present savings in the cost of the scheme in order to be considered for 'supported pool' status. It is the changes made to the scheme at this time in the name of producing savings that led to the need for the new application which is now being examined. The savings were presented to government in the 'Best and Final Bid' (BAFB) document in January 2011.

4.2 The outturn cost at Programme Entry (PE) in February 2009 was £139.44 million, based on an assumed start date in 2010 and completion in 2014 (http://www.lancashire.gov.uk/environment/env_highways/roads/heysham/old_updates.asp , see update Jan 2009), with an assumed inflation rate of 5%. The BAFB was for an outturn cost of £123.25 million, a saving of around £16m on the PE cost. The reasons for changes in costs are set out in the BAFB, in the following sequence:

1. Changes between PE and June 2010 when new cost estimates were prepared (BAFB p4), outturn cost down by £6m apparently largely due to a reduction in the assumed rate of inflation from 5% pa to 2.7% pa, total works costs largely unchanged although individual areas of cost had gone up or down.
2. Changes in scope of works, largely reducing lighting provision, £0.33m reduction (BAFB p5)
3. Scheme changes, raising road levels at Shefferlands Roundabout saving £7.3m, changes to J34 saving £1.78m (both figures include a 25% mark-up for Preliminaries, considered high for this stage of a project with a preferred contractor appointed)

4.3 It has been a matter of dispute since January 2011 how raising Shefferlands brought about savings of £7.3m, when its principal effect is to reduce cut and fill volumes and the total estimate for all earthworks at PE was only £8.5m. The BAFB stated that the change resulted in the elimination of 410,000m3 of off-site disposal of spoil (BAFB, bottom of p6), and an internal LCC officer report on the same day states that the main saving is due to the reduction of excavation which would have required off-site disposal. After TSLM pointed out that there had never been any off-site disposal in the scheme up to PE (the 2005 ES expressly states that there would be no off-site disposal), the explanation changed by the time of the IPC consultation in June 2011, which states that the saving is due to the saving in excavation and transporting material along the site. Mention is also made that it had been discovered that the bottom 2m of excavation at Shefferlands would have been in rock, at considerably higher excavation cost.

4.4 LCC have recently denied that there ever was a claim that there had been a cost saving due to elimination of off-site disposal[4]. This answer is implausible, as there could not have been

[4] Reply by Coun Tim Ashton, Cabinet Member for Transport, to Coun Sam Riches Jan 2012: "*It is true that there is a significant cost saving in reducing the planned excavations but no reduction in cost has ever been claimed for not removing material off site …There is, however, a considerable saving in not only reducing the excavation but also in then not having to move that material from one end of the site to the other.*"

elimination of off-site disposal as stated in the BAFB without there being an associated cost saving: but it has been confirmed by the receipt of the detailed 2010 cost estimates in April 2012, which indeed show that there was no cost allowance for off-site disposal. There were however two large items for:

- Bill item 5d): Extra over excavation in rock, , cost £2.215m
- Bill item 5j): disposal of material in areas on site, cost £1.502m

The first of these was in the PE 2008 costings, but with much lower quantities at a cost of only £281,000. The second item does not occur in the 2008 estimates, and it is unclear in what respect 'disposal' of material on site is any different from 'deposition' on site, though the bill rate for disposal is over three times higher. Both are however identified in a breakdown of the £7.3m savings provided to an objector in a FOI response on 14 March: except that the latter item is called 'Transport within the site'.

4.5 We thus have an extraordinary situation in which:

- The BAFB states that raising Shefferlands eliminated off-site disposal of 410,000m3 of spoil, but the June 2010 costings do not have an item for off-site disposal
- The BAFB makes no mention of cutting in rock, but the 2010 costings have an item for £2.215m EO cost for cutting in rock, which has now been presented as the largest single contributor to the £7.3m savings
- The next largest contributor to savings is the £1.502m which is variously described as transporting material within the site and disposing of material within the site, and is for an unexplained quantity of material at an unexplained rate
- The only other contribution of over £1m to the savings at Shefferlands is the £1.464m mark-up for Preliminaries

4.6 There are other problems with the claimed savings:

- On a rough calculation, it does not appear possible for the 157,000m3 of rock cut billed in the 2010 estimates to be generated by excavating the bottom 2m of the former Shefferlands roundabout area. This would require 2m to be cut from the whole of an area of 7.85ha: the whole of the Shefferlands red line area fits in a rectangle of only 6ha, the red line area is considerably less than that, and the bottom 2m would not be cut throughout the red line area, only at or immediately adjacent to the roundabout and the roads where they meet the roundabout.
- There is no allowance in the savings for the additional costs involved in raising the height of the Lune Bridge, acknowledged by the Project Engineer Steven McCreesh (email 10 April 2012), cost not quantified but said to be 'not significant', which is hardly a reason for omitting it.

4.7 It might be argued that however confusing and contradictory the reasons given for savings, it does not matter now as the items are no longer in the costings so there is no reason to suppose that the present costs are not robust. The problem with this line of argument is that it poses the question of how additional costs of £4.646m[5] came into the 2010 estimates without raising the total scheme cost compared with the 2008 estimates in which most of

[5] £2.215m + £1.502m = £3.717m + 25% Prelims = £4.646m

the £2.215m and all of the £1.502m costs were absent. The BAFB does not report any significant cost reductions between PE and June 2010 that would have balanced this significant but unreported increase, and it would take an awful lot of value engineering nudges to achieve this level of compensatory saving.

4.8 There is, however, a more serious problem with the costings as they now stand. The BAFB states that the 2010 estimates are at June 2010 prices, but it appears clear from the costings provided that they are at November 2008 prices, as unit costs for the same items are identical throughout both estimates. This has serious repercussions for the inflation calculation, which in the BAFB is calculated from June 2010 so misses 18 months of inflation between November 2008 and June 2010. I have calculated that this alone adds about £7m to the inflation allowance, using the LCC spreadsheet format for inflation calculations and the same assumptions as LCC (2.7% pa, start date autumn 2012, completion March 2015), giving a total outturn cost of over £130m compared with the BAFB figure of £123m. Given that inflation is known to have risen by more than 2.7% pa since 2008, this is likely to be a conservative estimate.

4.9 Worse still, the start date has now been put back to summer 2013, so another 9 months or so inflation has to be added. Even if the starting point were June 2010 prices, this alone raises the scheme cost by £3m to £126m: calculating from November 2008 prices, the total outturn cost rises to £134.5m, a good £13m above the BAFB figure.

4.10 The government has made clear that it will not fund the scheme above its capped amount of around £111m, so all cost overruns have to be borne by LCC. LCC has for its part reserved the right to pull out should scheme costs rise significantly. In the worst scenario above, LCC's contribution to scheme costs doubles, from £12.325m in the BAFB to over £25m with inflation recalculated.

Alan James
8 May 2012

APPENDIX 1: DESTRUCTION OF BAT ROOSTS AT COTTAM'S FARM

The scheme documentation has very serious flaws in its assessment of impact on the bat roost at Croskells/ Cottam's Farm relative to the Habitats Directive,

- ES Vol 1 Part A (application doc 6.1): "*9.5.69 Unmitigated the loss of roosts at the **Cottam's Farm** complex could represent a slight negative impact affecting low numbers of common species of roosting bats. Although the intermittent use bats make of the site suggests it is not a significant resting place and there are clearly other opportunities local that bats are using"* Destruction of a roost, with or without mitigation, is illegal under Article 12 of the Habitats Directive unless derogated under Article 16, , so it is hardly a slight negative impact. There is no such thing as an insignificant resting place - a site either is or is not a resting place according to evidence of use, and it is fully recognised that resting places of species like bats are only used intermittently. The assertion of low numbers of common species is irrelevant - all 17 species of native bat are protected under Article 12 as Annex IV species, and the law is not framed in terms of numbers - there is just as good a case for protecting a site with low numbers, to encourage increases in numbers.
- Assessment of Nature Conservation effects, application document 5.3. Para 5.3.15 is similarly flawed in its interpretation of the Habitats Directive. It claims that intermittent use and variation in numbers using the resting place "*indicates that the site is not critical for the survival of these individuals as they clearly have alternatives*". This is at best related to only one of the three tests - that the proposal is unlikely to affect the favourable conservation status of the species in the area - for derogation from Article 16, all of which have to be satisfied:. The others are overriding public interest in the proposal going ahead, and absence of alternatives. The assertion in the text is hopelessly lacking in evidence that the population remains viable if this roost is destroyed but other unspecified intermittent roosts remain. It is not known where the other roosts used by this population are located, or how safe they are from destruction? It is the vulnerability of bats to creeping habitat loss that has caused even the common species to be put in Annex IV.

There is comprehensive guidance on the Article 16 tests for derogation in the 2007 Guidance on the strict protection of animal species. It would be very difficult for a Park and Ride site to satisfy the test of overriding public interest, and the scheme falls foul of virtually every aspect of the required assessment. Above all , the statement in the 2007 guidance, section III.2.2 para 38 should be noted: *" recourse to Article 16 derogations must be a **last resort**"* (emphasis in original).

There is also an important High Court ruling on the destruction of a bat roost in the case brought against Cheshire East Council (attached). The crucial judgements relevant to the present discussion are:

- Paragraph 31: *The Planning Permission itself stated in reason 6 that the proposal had an acceptable impact on European protected species. But **that is not the question posed by the Directive** and Regulation 3 (4) which concerns the requirements to be met before any derogation can take place at all.* (my emphasis)
- Paragraph 34: *In any event, given the strict requirements for any derogation I would be very reluctant to hold that the outcome would have been the same in any event* (refers to previous para, which discusses whether the outcome would have been different had the proper assessment been followed). *And the fact that a licence was ultimately obtained (and based upon what appear to be some questionable assertions about the existing property and its ability to be used in the future) does not alter that conclusion. Indeed at the Inquiry Millennium's planning witness agreed that imperative reasons of overriding public importance did not arise and that there was a suitable alternative to demolition which was to retain Bryancliffe* (the building with the roost).

Para 34 in effect says that the granting of a licence does not necessarily mean that the development complies with the tests for derogation under Article 16. The implication is that a licence issued by Natural England (which the developer had obtained to demolish Bryancliffe) does not guarantee that the legal requirements for derogation have been met, which would presumably invalidate the licence.

APPENDIX 2: EXTRACT FROM HM6L REVIEW REPORT TO TSLM SEPTEMBER 2010

5.0 ALTERNATIVE PROPOSAL

5.1 As outlined in section 1, TSLM proposes that HM6L be abandoned as ineffective and unaffordable, and replaced with an integrated proposal to improve all transport in Lancaster District, led by a package of sustainable transport measures based on the Faber Maunsell (FM) report. The target cost would be £30-£40 million over the next 5 years, thereby saving at least £100 million on the cost of HM6L alone. Since the HM6L scheme also requires a package of FM measures to satisfy the conditions of planning permission, the overall saving should be greater still.

5.2 The FM report itself commented on the limitations of HM6L in relieving congestion on the local road network:

"Whilst the Heysham to M6 Link Road provides significant benefits to journey time reliability and reduces the level of congestion on a number of key corridors (in part or whole), in isolation, it does not resolve all transport problems on the city centre gyratory and would require other complementary measures as indicated in this report." (final report para 3.2.3)

This was written in the context of HM6L going ahead, since this was what the Brief stipulated. It is one of several statements that identifies why the road needs the sustainable transport measures: but the report at no point makes the case for why the measures need the road. It is simply the starting point of the Brief that the road will be built.

5.3 Even the assertion that HM6L reduces the level of congestion on certain key corridors is questioned elsewhere in the FM report:

"Whilst some road infrastructure work is planned that should improve access between Lancaster and Morecambe, not least the Northern Relief Road linking the M6 Junction 34 with Heysham, it is clear that little benefit will be gained by improving accessibility by private vehicle since traditionally extra road capacity is quickly filled by additional car trips. Instead, it is proposed to create some form of fast, efficient, and frequent public transport between the locations." (Final report para 4.2)

This statement recognises the commonly experienced effect of induced traffic, which the MSBC did not admit, that traffic expands to fill the available roadspace. The MSBC acknowledged some, but not much induced traffic, and even then there were few roads where forecast with-scheme traffic levels fell enough to justify a claim that previously congested roads would as a result become uncongested: and for every road on the existing network where traffic reductions were claimed, there was another where levels would increase.

5.4 Still less is there any tenable claim, either in the FM report or elsewhere by LCC, that traffic flow reductions would ***enable*** reallocation of roadspace to other road users. In some cases FM proposals are for sections of road where traffic volumes are actually forecast to increase, most notably the proposals for Dalton Square. In another case, LCC tried to argue at the 2007 inquiry that the traffic reductions on Caton Road would enable insertion of a bus lane to enhance performance of the J34 P&R, but this was shown not to be so. The roadway would need widening to accommodate a bus lane, and its viability would be unaffected by whether the opening year flow was 24,000 AADT (do-minimum) or 18,000 AADT (with-scheme): added to which forecasts indicated the with-scheme flow at year 15 would return to that of opening year without scheme.

5.5 This section outlines a proposed sustainable transport strategy and objectives, and a series of measures largely drawn from the FM report that would work towards delivering those objectives. A summary of the FM measures is included at Appendix 1. The section has also been informed by the relatively new Sustainable Transport Groups forum, facilitated by TSLM: this group has made additional comments on this report and added some detail including on the nature of some of the soft measures which could augment and complement the major scheme package (see Appendix 2).

Alternative strategy

5.6 The strategy proposed here is focussed on major scheme measures that will improve the ability of transport users to move around Lancaster District over a timescale of about 5 years. A comprehensive sustainable transport strategy looks more widely into measures to reduce the need to travel and reduce distances travelled, and work towards a wider range of objectives such as benefits to health. The 'focussed' strategy would be part of the coherent wider strategy, which is both longer term – for example land use planning to promote shorter journeys by more sustainable modes – and embraces 'smarter choices' activities outside the direct orbit of major schemes, such as promotion of walking and cycling, or travel planning, some of which is already happening.

5.7 The essence of the focussed 'major scheme' strategy is relatively simple:

- Promote modal shift measures to reduce traffic volumes on the existing network
- Identify ways of using existing transport infrastructure more efficiently

Provided that enough is done, concertedly and consistently, the strategy will help to achieve the Holy Grail sought by the present government, of improving transport efficiency by all modes, thereby contributing to economic efficiency but at the same time reducing CO2 emissions and saving money. This does however require 'enough' to be done, both to have a meaningful impact on traffic levels and to head off the release of suppressed demand for more road travel as and when traffic reduction through modal shift occurs.

5.8 A recent study by the Campaign for Better Transport showed that Nottingham is the least car-dependent city of its size in England, and Milton Keynes the most car-dependent. This is neither surprising nor coincidental. Nottingham has been in the vanguard of sustainable transport since long before the term was invented, whereas Milton Keynes was designed in the 1960s to deliver mobility by car from the outset. Nottingham had three of the four widely quoted pioneer travel plans in the mid-1990s; its bus operators have received national bus operator of the year awards twice in the past 10 years; the city has invested heavily in trams, and cycleways; and the council has recently become the first to propose a workplace parking levy (a measure available for the past 10 years, but which most councils refuse to contemplate). Nottingham is testimony to the potential for demand management to make significant inroads into car dependency.

5.9 Lancaster and Morecambe is self-evidently a smaller urban area than Nottingham, but in some ways smaller towns are more amenable to other transport modes than the car. In particular, distances are generally more amenable to travel by walking and cycling, and in the Lancaster area many routes are relatively flat with the obvious exception of the eastern suburbs of Lancaster. The Lancaster urban area is also very fortunate in that the main travel movement is linear, albeit in a horseshoe,

between Heysham-Morecambe-Lancaster-University. The urban form lends itself to a high quality linear route with spurs, which is easier to provide for than a form with a number of radial routes of similar weight.

5.10 The main downside for sustainable transport is the local rail network, with limited capacity, somewhat difficult location of Lancaster station (though close to the city centre), archaic signalling and paucity of stations on the Morecambe branch line, and problems of rail freight access to Heysham Port. On the other hand, Carlisle bridge is a vital and neglected asset as a further Lune crossing for local travel, and rail offers a very quick journey time between Lancaster and Morecambe town centres (and further afield on the WCML). The role of rail in local passenger travel is too often understated – peak hour trains between Lancaster and Morecambe, and on the Carnforth/ Barrow lines, attract very heavy usage.

Proposed package of FM measures

5.11 The total package of measures recommended by FM for consideration as future options was costed at over £96 million, phased over 15-20 years. Not everything can be included in a package of measures over 5 years at a cost of £30-£40 million; but in any case not all the proposed measures are supported by TSLM or regarded as part of an essential minimum for the strategy to do enough to make a difference.

5.12 The following key elements of the proposed package to be discussed here are:

- High quality spinal bus route between Heysham and the University of Lancaster
- Rail system upgrades
- Cycle infrastructure
- Revisions to Lancaster gyratory systems
- Park and Ride

In addition, the possibilities of online improvements to the existing highway network are explored, as potential complementary measures to the central demand management scheme.

5.13 *Spinal bus route*

A high quality spinal bus route, with enhanced feeder spur routes, is perhaps the key element in reducing traffic levels on the route that the HM6L is intended to relieve, and is a prominent recommendation in the FM report. However, FM seeks to promote the spinal route as a Bus Rapid Transit (BRT) scheme including taking over the Lancaster and Morecambe Greenway (cycle/ walkway on former rail line) and constructing a new restricted access bridge at Luneside.

BRT systems are currently fashionable, in the belief that they can capture the glamour of light rail in a way that ordinary bus route enhancement cannot, but at lower cost than light rail. This belief is not well grounded in evidence, least of all that the significantly higher capital costs than for 'conventional' bus systems give a meaningful return in increased ridership by car users. Many of the features of BRT, such as modern, comfortable, low-emission buses, high frequency, and real time information, can equally well be provided by quality bus contracts (QBC) for conventional on-road bus services.

In my view the aim should be to provide a 'QBC+' service from Heysham to the University of Lancaster, using every opportunity to provide dedicated bus lanes and junction priority measures to ensure good journey times and reliability throughout the route. This would be supported by other bus improvement measures on ancillary routes, one example being the FM proposal for a bus shuttle between the bus and railway stations in Lancaster.

One aspect of the FM BRT proposal that is probably worth further consideration is the Luneside bridge. The attractive aspects of this proposal are that it would provide a more direct route between Morecambe Road and Lancaster city centre, connect well with Lancaster railway station, and open up accessibility of the western suburbs of Lancaster. The large question mark is how it would be routed between Lancaster rail station and South Road, which would appear to involve either a contraflow along King Street missing out the bus station, or a detour round to the bus station which would add to the end-to-end journey time.

An alternative to the bus bridge at Luneside would be a contraflow eastbound bus lane on Greyhound Bridge, providing a somewhat more direct route free from general traffic. The bridge has three lanes which are underutilised because of traffic flow constraints on the bridge approaches, and the traffic streams have in any case to resolve into two lanes at the northern end.

A further possibility relates to the future of the 'Centros' site between Lancaster city centre and the canal. The land use and layout of this area are in the melting pot following the demise of the previous Centros development, and there may be possibilities to provide dedicated sustainable transport routes through this area.

5.14 *Rail network upgrades*

The main proposals in FM were to upgrade the station environment at Bare Lane and Morecambe stations, and to upgrade the signalling on the Morecambe branch line. In my view, this is fine but not ambitious enough. The significant problem of the branch line for passenger services is that it has too few places at which residents can access rail services – in other words, stations. There might be room for an additional halt between Morecambe and Bare Lane, which may be feasible for a tram-train type of service: but there is certainly scope for two further stations on the line between Morecambe and Heysham, each serving good residential catchment areas.

The other problem with rail is freight access to the Port of Heysham, though the problem should not be overstated. Port freight services are constrained by the limited track length for the reversing movement at Morecambe station, and by the poor signalling infrastructure on the branch line. However, the Rail Freight study conducted in 1999/ 2000 concluded that *"the port is in an advantageous position in that a reasonable basic freight terminal can be provided at a low cost compared to many other ports in the UK".* A further study in 2003 identified existing port traffic currently using road access to the port that would be amenable to transfer to rail with upgrade of rail facilities at the port but accepting the capacity limitations of the line.

Some transfer of port freight from road to rail is an integral component of the alternative proposal. To an extent, what could be done depends on how willing potential partners are to do it. The earlier

study made the interesting observation that rail linkage to ports may come to be regarded as a competitive necessity to maintain a port's activity in a low carbon transport future, and in this respect Heysham is at an advantage compared with for example Fleetwood simply by virtue of still being rail linked. In other words, rail access may become an issue not just of desirability to move towards low carbon transport to the Port of Heysham, but of the port's long-term survival.

It is sometimes said that the WCML between Lancaster station and the junction with the Morecambe branch line is operating close to capacity. According to timetables this line can operate at headways of 6 minutes between passenger trains, and rarely carries more than four passenger trains per hour in each direction. Even allowing for freight train paths, if one of the most important main line railways in Britain is close to capacity at these levels of usage, there is something fundamentally wrong!

A very useful summary of the potential measures for the local rail network has been produced by LAMRUG, a member of the Sustainable Transport Groups forum, included as Appendix 3. This explains the nature of for example the signalling problems on the Morecambe branch line. Not all the actions in the LAMRUG analysis would be included in the proposed major scheme package, and items such as signalling and line upgrades would normally come under a Network Rail programme of works rather than LTP measures.

5.15 *Cycling infrastructure*

The FM report recognises the importance of cycling in the local transport mix, but does not allocate enough of its budget to cycling provision. Lancaster's position as a national Cycling Demonstration Town has raised the profile of cycling and led to the preparation of a potential programme of infrastructure development, but it is understood that CDT funding ceases in 2011 and much of the programme will be unlikely to be funded through the relatively small sums of money available through the LTP block grant.

Without knowing the detail of CDT infrastructure proposals it is not possible to develop the cycling element further in this report, but it is proposed that cycle infrastructure be allocated a meaningful amount within the £30-£40 million proposed budget.

5.16 *Lancaster city centre gyratory*

The interlinked one-way systems in Lancaster are described in the FM report as follows:

"it is felt that Lancaster's gyratory system no longer represents the best use of traffic management and is actively contributing to congestion and delay" (Final report para 4.5)

Given such an unequivocal verdict, the report somewhat disappointingly fails to do the necessary evaluation of options to arrive at a shortlist of costed proposals, unlike other measures such as potential P&R sites which are equally aspirational at present. Eleven options are outlined, mostly permutations of similar sets of measures and therefore very difficult to follow, and uncosted although notional budget amounts are included for gyratory modifications.

In principle:

- There is no real need for the one way system around Kingsway, and shortening the distance travelled between Skerton Bridge and North Road would on its own be likely to reduce CO2 emissions.
- The city centre would benefit environmentally from traffic reductions/ restrictions along King Street and especially China Street where traffic currently severs the Castle area from the town centre
- Measures should seek to limit or discourage traffic movements through the centre, especially north-south: in most European towns of similar size it is possible to reach the edge of the centre by car and leave in the same direction, but far more difficult to travel from one side to the other
- Measures should not be afraid of reallocating roadspace on the gyratories, as a means of managing demand for travel by car in tandem with the improved offer by other modes.
- As the FM report comments, changes to the town centre gyratory should probably not be aimed at reducing journey times through the centre, as this could encourage more use of the route to Morecambe via J33.

Without more resolution from FM on the best changes to make on the one-way systems, the detailt cannot be taken any further, but the need to improve the efficiency of the existing network is clear.

5.17 *Park and Ride*

There is already a commitment and a funding allocation to build a P&R site at J34, which could go ahead without HM6L, although its configuration and possibly its site would have to change. The FM report has several other proposed locations, including White Lund, Carnforth railway station, Salt Ayre, A6 at Beaumont, and just off A6 north of Galgate (the latter eventually in conjunction with new slip roads off the M6). Together with the upgrade to the Caton Road shuttle bus route for the P&R, these account for a significant chunk of the total FM budget - £10.4 million plus £20 million for the M6 slip roads at Galgate.

Park and Ride may be a component of demand management strategies, and is undoubtedly popular among local authorities, but should be treated with caution. The amount of capital outlay, and continuing revenue costs in providing shuttle buses, may not be justified for the amount of traffic reduction actually achieved, and P&R schemes are notorious for their unintended consequences. It is calculated that a 500 space P&R site at J34 could reduce traffic along Caton Road by no more than 4% (a proposed major rail P&R site for Manchester was found at a public inquiry several years ago to reduce traffic approaching that side of Manchester by 0.16% in the AM peak!).

P&R may well be part of the package of measures in this proposal, but not to the extent envisaged by FM.

5.18 *Online road improvements*

The need to improve the efficiency of the existing road network has become something of a mantra in recent years, linked to the principle accepted since 1994 (SACTRA report "Trunk roads and the generation of traffic") that you cannot build your way out of congestion, and more recently that a large amount of major new road building is unaffordable. Improved efficiency often relates to removing specific pinch points or safety hazards, often at junctions or relatively short stretches of sub-standard roadway.

TSLM's basic strategy has long been that with demand management to bring about reductions in locally generated traffic, and some online improvements to the route between J34 and the Port of Heysham, the need to build HM6L as a lorry route to the port would be obviated. The already relatively small journey delays, largely in the two peak hours, would be reduced provided that the modal shift measures were strong enough to absorb the pressures of suppressed demand release (in other words, any tendency towards increased travel demand would be largely met by modes other than the car, because the other modes would be more attractive than using the car).

The 2007 inquiry inspector appeared to misunderstand this strategy completely, as his analysis was that he could not see how demand management could be applied to reduce HGV journeys to the port, other than by modal shift of freight to rail which he regarded as unrealistic.

Possible elements of online improvement of the A683 route are:

- Minor widening of A683 Caton Road to accommodate an inbound bus lane, already proposed in FM as part of the J34 P&R (could also allow HGV use, or could become HGV lane from the point where buses turn off into Newton Estate)
- Revisions to Kingsway gyratory and the bridges
- Contraflow bus lane on Greyhound Bridge, as outlined above
- Traffic light modifications along Morecambe Road, as proposed in the LCA but more closely bound into a coherent strategy
- Possible widening opportunities on Morecambe-bound carriageway and/ or reduction in centre hatching, if this can create more bus/ HGV lane opportunities
- Right turn ban at Scale Hall, which appears to be the most significant bottleneck westbound along Morecambe Road.
- Bus route on parallel road to A683 at Ryelands, potentially freeing up existing bus lane for HGV use
- Junction improvements at Morecambe Road roundabouts, if needed, could include segregated left-turn lanes, bus bypass gates, part time signals

5.19 Alternative proposal costs

Where possible these are taken from the FM report costing exercise, otherwise an order of cost is given representing the proportion of cost relative to the overall budget. These costs would be spread over 5 years, but at present no implementation programme or annual spend is indicated. This would be subject to further consideration and is very flexible.

1. Quality Bus Corridor and other minor bus infrastructure: £15 million without Luneside bridge, £23 million with bridge (based on downgrade of FM BRT costing, without the 'Greenway' section and the high costing for the southern section which would be excessive for an on-road QBC)
2. Rail upgrades: £4.5 million for station upgrades (including Carnforth) and two new stations on Morecambe-Heysham line: signalling upgrade should be in Network Rail budget rather than LTP major scheme, port infrastructure enhancements subject to rail freight grants (??)
3. Cycle infrastructure: £2 million, CDT schemes to be prioritised and funding allocated accordingly
4. Gyratory revisions: £1.5 million (FM uncosted budget allocation £1.2 million)
5. Park and Ride: £3.4 million – J34 site plus White Lund as costed in FM, excluding bus route upgrades assumed covered in 1 above
6. Online improvements: £5 million (equivalent to spend in LCA minus the cost of J34 rebuild)

Total cost: £31.4 million without Luneside Bridge, £39.4 million with bridge.

5.20 This cost appraisal meets the criterion of a package in the range £30-£40 million enabling a saving of £100 million compared with HM6L. Since it is a package of measures it is amenable to amendment in the light of more detailed costings, and the programme can be adjusted to suit the overall budget over 5 years, with a degree of flexibility in annual budget profile.