

**Proof of Evidence:
Options and Alternatives**

**Presented to the Public Inquiry
in relation to
Lancashire County Council Planning
Application Reference: 11/05/1584
Completion of the Heysham to M6 Link**

**Planning Inspectorate Reference:
APP/Q2371/V/07/1200928 &
APP/Q2371/V/07/1200929**

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Transport Solutions for Lancaster and Morecambe (TSLM)**

1.0 INTRODUCTION

- 1.1 My name is Alan James. I have a Bsc (Hons) in geography, and MA in Landscape Architecture. I am a fully qualified landscape architect and a Member of the Landscape Institute (MLI), and have for eleven years worked as a transport consultant specialising in sustainable transport, as an Associate of Eco-Logica for most of that period. I grew up in the Lancaster area, and lived in Lancaster for 12 years through the 1980s, so am very familiar with the development context.
- 1.2 Work experience includes; research into the impacts of traffic in rural areas for the Countryside Agency; integrated strategic transport approaches, including a major initiative in Guildford, for Surrey County Council; research studies on reducing car dependency in tourism and recreational travel, for Transport 2000 with DETR funding; work on Travel Plans for a variety of clients, including the pioneering studies at Derriford Hospital and Pfizer. I worked as consultant to DETR on proposed parking standards for the revised PPG 13 (2001). I was an inaugural member of the DfT/ AEAT advisory panel providing assistance to organisations in the implementation of Travel Plans, and am a member of the equivalent panel in Scotland. I wrote the discussion paper responding to the report by Halcrow to DTLR on the effect of soft factors in reducing demand for travel by car, which led to the report for DfT “Smarter Choices: changing the way we travel” (July 2004), and took part in the discussion with the Halcrow report author on soft factor effects at the 2002 conference to launch European Car Free day.
- 1.3 I wrote a briefing paper for the TAR groups on the revised LTP major scheme guidance of April 2005, and through this and other assessment work I have a detailed knowledge of WebTAG and its predecessors. I have represented several organisations at Public Inquiries into major highway schemes. I am Chairman of the Dumfries and Galloway Accessible Transport Forum, an organisation working to co-ordinate and promote community and other voluntary transport within the overall transport provision of the region.
- 1.4 At this Inquiry I am appearing as a witness on behalf of Transport Solutions for Lancaster and Morecambe, covering options, alternatives, and national guidance in this proof of evidence and local economic impacts in a separate proof. This proof of evidence will primarily address the Secretary of State’s matters b), c), and g) in the call-in letter of 8 February 2007:
- b) Whether the road alignment as proposed, is, in principle, the most appropriate and sustainable route
 - c) The extent to which the proposed development is consistent with Government policies in Planning Policy Statement 1: Delivering Sustainable Development and its emphasis on the importance of sustainable development as the core principle underpinning the planning system.

In particular, the requirement to reduce the need to travel and encourage accessible public transport provision, to secure more sustainable patterns of transport development, should be considered, together with the Government's commitment to promote a strong, stable and productive economy that aims to bring jobs and prosperity for all.

- g) The extent to which the proposed development is consistent with the advice in Planning Policy Guidance Note 13: Transport, in particular on the need to promote more sustainable transport choices and reduce the need to travel especially by car.
- 1.5 Under b), as set out in the joint TSLM/ ESTA statement of case, the issue is felt to be more about whether the proposed Heysham-M6 Link (HM6L) is the most appropriate and sustainable solution to the area's transport needs. The view of TSLM, which I share, is that solutions led by major road schemes are not the most appropriate and sustainable solutions, so choice of routes for major road schemes is very much a secondary issue. This does not preclude solutions with elements of road improvement to make best use of existing capacity, but schemes which involve significant increases in road capacity and enhanced travel times primarily for one sector only of transport users are another matter.
- 1.6 Options, alternatives, and national guidance have been brought together in one proof of evidence because of the inextricable links between them. A central issue in this proof is that Lancashire County Council (LCC) has failed to examine the wide range of possible alternatives to major road construction to solve the transport problems of Lancaster District. In doing so LCC has failed to follow the WebTAG guidance which specifically calls for an option identification and distillation process to ensure that the optimal solution has been correctly identified and that there is an audit trail to explain the choice of preferred option. PPG 13 provides the sustainable transport framework on which WebTAG is based.
- 1.7 LCC claims that it has considered more sustainable modes, which are discussed in the Major Scheme Business Case (MSBC) of July 2005. However, as set out in TSLM's response to the MSBC, these were not offered either as integral components of the HM6L, nor as alternatives to it - they were simply things happening alongside the proposal, and could continue to happen with or without the road.

LCC subsequently revised the HM6L proposal to include the Caton Road Park and Ride scheme, and argues that this and other initiatives to improve the more sustainable transport modes can only take place once traffic reduction on the existing network has been effected by construction of the HM6L. No detailed evidence has been presented to date to substantiate this claim, and its validity will be challenged in this proof.

- 1.7 The proof of evidence is set out in three sections:
- PPG 13: a brief review of the key objectives of PPG 13, and discussion of how LCC's case for the HM6L relates to these objectives
 - Option appraisal, based on the WebTAG/ LTP major scheme guidance requirements, with discussion on where and how LCC has failed to follow the guidance
 - Sustainable mode measures, and their relationship to the HM6L
- 1.8 Key documents to which reference will be made include:
- PPG 13 2001 (some reference to original 1994 version)
 - WebTAG sections...
 - LTP major scheme guidance April 2005
 - LCC Major scheme business case July 2005, and related documents
 - TSLM response to MSBC, March 2006

2.0 SUMMARY

- 2.1 Car use is not precluded by the quest to promote more sustainable transport choices and reduce the need to travel by car, but promoting car use by building more and faster capacity for car users clearly does not fit in with any of the three core objectives of PPG 13. LCC forecast a 15% increase in traffic with the scheme due to induced traffic effects (the figure is regarded by TSLM as an underestimate in relation to observed patterns of induced traffic in congested urban conditions, but this issue is not explored further in this proof).
- 2.2 As a result of traffic growth, an additional 23,500 tonnes of CO₂ from vehicle emissions is forecast in the opening year, rising progressively thereafter. The EIR highlights the improved accessibility for car users as a benefit conferred by the HM6L, enabling people to drive further to access services and employment in a given travel time: this is the antithesis of PPG 13 policies. These indicators alone cast doubt on the scheme's consistency with the objectives of PPG 13.
- 2.3 Although refined and strengthened over the years, the principle of beginning an appraisal with as wide a range of options as possible was established in GNATA (Guidance on NATA, also 1998) so has been around for almost 10 years. The April 2005 guidance on LTP major schemes, although it only just predates the submission on the MSBC for the HM6L, repeats the guidance on option identification and appraisal from the April 2003 revision of the LTP major scheme guidance, which itself reiterates the guidance in WebTAG.
- 2.4 There is therefore no reason why this guidance should not have been followed in the preparation of HM6L as a submission for LTP major scheme Programme Entry in July 2005. TAG Unit 1.4 Section 2.9.3 clearly states: "*The assessment of alternatives should start from an initial wide base of possible options. The Department requires a clear understanding of why some particular options are preferred to others. Each option must be assessed against both local and central Government objectives, and in terms of the contribution to LTP objectives*".

- 2.5 LCC's description of the background to the HM6L northern route proposal reveals that there was a "preferred modal solution" from an outset over 50 years ago. The overarching principle of current guidance on options is that the preferred option emerges from a pool of diverse contenders, and it is clear why it did so. In complete contrast, the HM6L northern route emerged out of a pool of two road options, and then only because the other option was deemed unviable.
- 2.6 It can only be concluded that LCC failed to follow appraisal guidance, which it should have followed as part of the MSBC submission, in relation to option identification and distillation to a preferred solution. It is therefore unsafe to conclude that the HM6L is the most appropriate solution to the transport needs of Lancaster District, since it has not been adequately tested against the wide range of alternative options, or combinations of alternatives. The HM6L should in TSLM's view also be rejected for funding by the Department for Transport, for the same reason, and in almost two years to date the scheme has not been accepted for Programme Entry.
- 2.7 The sustainability credentials of the HM6L scheme depend largely on the concept that removal of traffic from the existing road network to the new road will facilitate promotion of the more sustainable transport modes. The first point to be made in discussion of this subject is that traffic reductions on much of the existing network do not bring about a quantum shift in volumes, and even under LCC's forecasts a considerable amount of the claimed reduction in 2010 has been lost to subsequent traffic growth by 2025.
- 2.8 In principle, roadspace reallocation can only happen where there is enough roadspace to reallocate, or where traffic volumes decline to the point at which entire roads can be reallocated. The traffic reduction claimed for the HM6L does not release any roadspace for a bus lane. Equally, if there is already room for a bus lane, or if it were proposed to widen the road to accommodate a bus lane, this could take place at either flow level, so it cannot be claimed that the HM6L enables the bus lane.
- 2.9 A further problem with LCC's case is that much of the claimed reduction on the existing network is eroded over time. The forecast flows on Caton Road in 2025 with the HM6L are almost exactly the same as baseline flows. It should be concluded that there is nowhere that traffic reductions claimed for the HM6L enable reallocation of roadspace to more sustainable modes.
- 2.10 In the absence of evidence to the contrary, it must be concluded that the claim by LCC, that the HM6L enables enhancements to the more sustainable transport modes in ways that would otherwise be difficult to achieve, and "would therefore allow a move towards more sustainable patterns of transport" (SoC quoted in 5.1), is completely without foundation.

3.0 PPG 13

3.1 The core objectives of PPG 13 are set out in paragraph 4 of the guidance:

“4. The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to:

- promote more sustainable transport choices for both people and for moving freight;
- promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling, and
- reduce the need to travel, especially by car.”

The original PPG 13 had more specific objectives about car use, to reduce the need to travel, reduce distances travelled, and reduce reliance on the car. The first of these is repeated in the third bullet above, but whilst the others are not explicit in the 2001 version, there has been nothing in government policy or practice to suggest that they are no longer part of the armoury to manage demand for car travel. Both are implicit in “reducing the need to travel, especially by car”

3.2 It is in principle quite difficult for major new road construction to be compatible with the above three objectives. Car use is not precluded by the quest to promote more sustainable transport choices and reduce the need to travel by car, but promoting car use by building more and faster capacity for car users clearly does not fit in with any of the three core objectives of PPG 13. There is nowadays no doubt that building new roads can readily promote car use through the mechanisms of induced traffic, as set out in the 1994 SACTRA report “Trunk roads and the generation of traffic”: and, as identified by SACTRA, the most likely scenario for induced traffic effects is congested urban networks.

3.3 New road construction is however often claimed to be compatible with sustainability, in one of two ways:

- Targeted capacity increases to alleviate congestion bring other sustainability benefits such as pollution reduction, and need not promote more car use provided that induced traffic is avoided and the benefits are “locked-in” - a crucial concept of the 2004 Transport white paper
- New road capacity may release road space on the existing network to be reallocated to more sustainable modes, or may help other modes by reducing congestion

The first of these is easier to say than to achieve, and the 2004 white paper heralds a move towards road pricing as the essential tool to lock-in the benefits of increased capacity. In the case of HM6L, this does not appear to be even on the agenda. On the other hand, LCC’s claimed sustainability credentials for the scheme rely heavily on the new road-enabling enhancement of more sustainable transport modes by removing traffic from the existing network.

3.4 The credibility of this case depends crucially on the extent to which measures to promote sustainable transport can occur in Lancaster district as a direct result of the HM6L, which could not otherwise happen. This will be explored further in section 4 below. However, there are several indications that the scheme is forecast to perform in ways, which are at odds with the objectives of PPG 13 to promote choice, access by more sustainable modes, and reduced need to travel by car. For example:

- LCC forecast a 15% increase in traffic with the scheme due to induced traffic effects (the figure is regarded by TSLM as an underestimate in relation to observed patterns of induced traffic in congested urban conditions, but this issue is not explored further in this proof)
- Traffic growth to 2025 is forecast in the MSBC to erode much of the claimed relief: for example, the AADF for Caton Road 2025 with-scheme is 21,000 compared with 21,200 in the baseline, and on Morecambe Road at Scale Hall the equivalent figures are 28,800 and 30,600 respectively. It is estimated that there would be 24,200 more vehicles (AADF) crossing the West Coast Main Line in 2025 with HM6L than in the baseline year, and 19,600 more than in the 2010 do-minimum forecast (numbers from AADF forecast maps in MSBC Annex C). There is little if anything in LCC's submission to suggest that demand management is envisaged to restrain forecast traffic growth.
- As a result of traffic growth, an additional 23,500 tonnes of CO₂ from vehicle emissions is forecast in the opening year, rising progressively thereafter
- The EIR highlights the improved accessibility for car users as a benefit conferred by the HM6L, enabling people to drive further to access services and employment in a given travel time: this is the antithesis of the policies of PPG 13

3.5 These indicators alone cast doubt on the scheme's consistency with the objectives of PPG 13. It could - just - be argued that traffic growth is not necessarily inconsistent with promoting sustainable transport choices, if there is more travel across all modes: but 'more of everything' is scarcely consistent with "reducing the need to travel", and significant increases in traffic do not appear at all consistent with the rider of reducing the need to travel "especially by car".

4.0 OPTION APPRAISAL

4.1 Current scheme appraisal guidance traces its origins back to the New Approach to Appraisal (NATA) produced in 1998 at the time of the Trunk Roads review associated with the 1998 Transport White Paper. Although refined and strengthened over the years, the principle of beginning an appraisal with as wide a range of options as possible was established in GNATA (Guidance on NATA, also 1998) so has been around for almost 10 years. WebTAG is the current web-based version of the guidance, which initially edited the Guidance on Multi-Modal Studies (GOMMMS, 2000) into an accessible and easily cross-referenced electronic form.

- 4.2 The April 2005 guidance on LTP major schemes, although it only just predates the submission on the MSBC for the HM6L, repeats the guidance on option identification and appraisal from the April 2003 revision of the LTP major scheme guidance, which itself reiterates the guidance in WebTAG. There is therefore no reason why this guidance should not have been followed in the preparation of HM6L as a submission for LTP major scheme Programme Entry in July 2005.
- 4.3 The TSLM appraisal of the scheme justification (primarily the MSBC) in March 2006 (which I wrote) laid out in detail the guidance from WebTAG and the 2005 LTP major scheme guidance pertaining to option identification and appraisal. It is worth setting most of this out again as a starting point for assessing the MSBC's conformity with guidance (bold type my emphasis).

TAG Unit 1.4

- 1.1.10 The Department expects that the appraisal process is based on 'first principles' - the identification of the problems, the setting of objectives and the generation of options. From a wide range of initial options considered, a submission should carry at least two options fully through appraisal, the preferred option and a lower cost alternative. Large major schemes (>£20m) may also need to carry a 'next best' option through the appraisal process. This should be assessed against the NATA criteria. The 'next best' option should be the option which performs next best to the preferred option in terms of the NATA assessment.
- 2.5.3 For options discounted at an earlier stage ASTs and some worksheets will be required.
- 2.9.1 The appraisal must include a detailed assessment of the scheme against alternative options that would, as far as possible, broadly meet the same objectives. The testing of alternatives is not an add-on to the appraisal but an integral part of the process of determining the preferred option.
- 2.9.2 ... For highway schemes there should be a consideration of different link/junction standards and other alternatives to address the problems in the area, such as public transport provision, demand management policies, traffic management measures and strategies. Assessment of detailed option designs should form part of the sensitivity analysis in determining the optimum configuration of the scheme.
- 2.9.3 The assessment of alternatives should start from an initial wide base of possible options. The Department requires a clear understanding of why some particular options are preferred to others. Each option must be assessed against both local and central Government objectives, and in terms of the contribution to LTP objectives. The assessment of alternatives must be sufficiently robust to allow a detailed comparison between the preferred scheme and its alternatives.

The Department may wish to see ASTs and worksheets (including TEE tables) for the rejected alternatives, though the level of detail provided in these ASTs and worksheets should be proportionate to the stage at which the rejected alternative was scoped out.

- 2.9.4 After a thorough justification has been given for the rejection of some of the initial set of options, the Department requires that all major schemes move toward a final appraisal of the preferred option and a 'fully worked up' lower cost alternative. ... For larger majors (>£20m) a 'next best' alternative may also need to be carried through the appraisal process.

TAG Unit 3.2:

Description of Other Options Considered

- 1.3.3 There is no space on the single page AST to include anything about the other options considered. Instead, a separate single page should be prepared, providing a brief description of all rejected options and a summary of the reasons for their rejection. The information provided should be self-explanatory, but concise.
- 1.3.5 Again, this information is a summary; a complete description of the details of the rejected options and their appraisals should be included in the supporting documentation.

The April 2005 draft "Guidance to local authorities seeking DfT funding for transport Major Schemes", section 1.5, paraphrases WebTAG. Key phrases from this are set out below:-

- "The starting point ... Is to identify the problems to be addressed and the objectives that the bid would support"
- "The bid should not start from an assertion about a preferred modal solution"
- "The assessment of alternatives should start from an initial wide base of options"
- "(the Department) requires a clear understanding of why some particular options are preferred to others"
- "Scheme bids should demonstrate a clear path from identifying the problem to arriving at the preferred solution"
- "Appraisals ... Must include a detailed assessment of the scheme against the alternative options that would as far as possible broadly meet the same objectives"
- "The testing of alternatives is not an add-on to the appraisal but an integral part of the process of determining the preferred option"
- "Any major scheme for which the appraisal of alternative options is considered inadequate ... will not be accepted for funding"
- "For highway schemes there should be consideration of ... other alternatives to address the problems in the area, such as public transport provision, demand management policies, traffic management measures and strategies"

4.4 LCC's description of the background to the HM6L northern route proposal reveals that there was a "preferred modal solution" from an outset over 50 years ago. For example, the opening paragraph of the Environmental Statement states that:

"A connection between Morecambe Road and a North-South Bypass of Lancaster (future M6) was proposed as far back as 1949 and a route north of Lancaster between the M6 Motorway and the Morecambe and Heysham area was a concept in the 1950s during the development of the Lancaster Bypass." (ES 1.1.1)

4.5 In the discourse that follows through to paragraph 1.1.39 of the ES, the choice oscillates between the northern route and the western route, but at no point is there a root-and-branch re-evaluation of whether a major road remained the preferred solution. Notably, in 2001 a public consultation was held "into the two alternative routes" (ES 1. 1.31), and in December 2001 there was a Cabinet resolution that:

"If it proves impossible to proceed with the Green (western) Route, the County Council should then pursue the Orange (northern) Route." (ES 1.1.32, Cabinet resolution bIII)

This was what happened in August 2004, when LCC's leading counsel advised that the western route would be likely to run into difficulties on environmental grounds. From that point on, in accordance with the Cabinet resolution of 2001, the northern route became the only option on the table.

4.6 The logic that appears to direct LCC's thinking is that it has had a consistent policy to build a road link from the M6 to Heysham for a very long time, and the only stumbling block was which route to adopt. Once this was finally settled by the 2004 legal opinion, the scheme could at last go ahead. However, as far as the LTP process goes, the HM6L was a new scheme in July 2005, and as such was subject to the appraisal guidance prevailing at that time. This requires, as stated above:

- A starting point without a preferred modal solution;
- An initial wide range of options
- Specific consideration of multi-modal options across a wide range of measures including management
- An explanation of why some options are preferred to others including a thorough justification for rejecting the discarded initial options
- Appraisal of alternatives to be part of the distillation process towards a preferred solution, not an add-on

4.7 There can be no doubt that LCC had to follow the appraisal guidance for a new scheme, even if the Council thought that it had already made a proper decision following an exhaustive appraisal process. The HM6L was not a scheme with Provisional Approval in 2005, so had to go through the Programme Entry process, which required a full appraisal in accordance with WebTAG (see for example, 4th para of covering letter to LTP major scheme guidance 2005, and Annex A of the guidance).

Moreover, it is arguable that it was not only necessary but sensible for LCC to review its long-standing commitment to a major road solution at some point after 1994, given the complete recasting of government transport policy between then and now. Programme Entry offered the ideal opportunity to do exactly this, with the benefit of a well structured appraisal process attuned to the prevailing policy climate.

- 4.8 The overarching principle of current guidance on options is that the preferred option emerges from a pool of diverse contenders, and it is clear why it did so. In complete contrast, the HM6L northern route emerged out of a pool of two road options, and then only because the other option was deemed unviable.
- 4.9 Perhaps this genesis explains the bizarre choice of the western route as the “next-best option” in the MSBC, when less than a year earlier LCC’s leading counsel advised that its choice as preferred route would be regarded “not only as extraordinary but one that was perverse on the part of the County Council” and that such a decision would be “lacking in logic and one that no reasonable planning authority properly directing itself could come to” (quoted in MSBC C.2.2). The next-best option has to be “the option which performs next best to the preferred option in terms of the NATA assessment” (WebTAG, quoted above). Other than the western route being the only other option under consideration, it is inconceivable that it could be the next-best option in terms of a NATA assessment. The western route is described elsewhere in the MSBC (Annex A) as “unbuildable”, so in principle any of dozens of “buildable” options would be preferable to the western route as a “next-best option”.
- 4.10 The MSBC presents a “Lower cost alternative” in line with WebTAG, which is a curious and unsatisfactory amalgam of disconnected and relatively minor works on the A683 with a major upgrade of Junction 34 on the M6 (which accounts for the vast majority of the scheme costs). It is questionable why the J34 upgrade, which would otherwise be a Highways Agency responsibility, should be in a largely unrelated LTP major scheme with so little else happening.
- 4.11 It is difficult to avoid the conclusion that the ‘lower cost alternative’ appraisal was an “add-on” rather than an “integral part of the process of determining the preferred option” (WebTAG quoted above), for two reasons:
- It is clear that the northern route became the preferred option when the western route was abandoned, at a time - only a matter of months before MSBC submission - when there were only two options: and there is no evidence that LCC ever reviewed that decision or started again with a blank sheet
 - There is also no evidence that the ‘lower cost alternative’ emerged from a pack of contending schemes showing usefully what could be achieved for a lower cost

- 4.12 There have been several attempts, including by Geraldine Smith MP in questions to the Minister for Transport, to ascertain whether any other options were considered and rejected. The only other option mentioned was a public transport appraisal in the early 1990s, the rejection of which by LCC in 1993 was reported in the MSBC (A.5.2): it is clear that the rejected options of 1993 were not revisited as part of the LTP major scheme appraisal process in 2005. It therefore appears that no further unreported options were considered but rejected by LCC as part of the formal MSBC submission.
- 4.13 It can only be concluded that LCC failed to follow appraisal guidance which it should have followed as part of the MSBC submission, in relation to option identification and distillation to a preferred solution. It is therefore unsafe to conclude that the HM6L is the most appropriate solution to the transport needs of Lancaster District, since it has not been adequately tested against the wide range of alternative options, or combinations of alternatives, “that would as far as possible broadly meet the same objectives” (LTP major scheme guidance 2005, quoted above). The HM6L should in TSLM’s view also be rejected for funding by the Department for Transport, for the same reason, and in almost two years to date the scheme has not been accepted for Programme Entry. Even if it were to be accepted at this late stage, the conclusion remains the same, that the scheme has not been properly tested against alternatives so cannot be confirmed as the most appropriate solution, least of all in the present transport policy climate.

5.0 PROMOTION OF SUSTAINABLE MODES

- 5.1 The sustainability credentials of the HM6L scheme depend largely on the concept that removal of traffic from the existing road network to the new road will facilitate promotion of the more sustainable transport modes - walking, cycling, and public transport (in this case buses). In general, this could happen in one of two ways:
- Re-allocation of road space for bus or cycle lanes or wider footpaths
 - Improved conditions on the network due to reduced levels of traffic: for example, buses could be able to travel more quickly and more reliably, cycling could become more pleasant and safer, pedestrians could be able to cross roads more quickly and could be less exposed to noise and pollution

LCC’s statement of case sets out the Council’s position on this:

“The County Council will also demonstrate that the proposed development would release road space which can be used to implement a variety of traffic reduction and public transport initiatives aimed at bringing about modal shift such as park and ride and improved bus services that would be difficult to achieve without the proposed development. The development would therefore allow a move towards more sustainable patterns of transport particularly in terms of commuter traffic into Lancaster City Centre.” (SoC section 4 matter c)

- 5.2 As discussed in section 3 above, the scheme submitted in the MSBC did not appear to be very effective in demand management terms, as it resulted in more traffic, more emissions, and more mobility for car users. LCC did not appear to argue that any promotional effect on 'soft' modes led to significant modal shift to the extent of offsetting 'natural' traffic growth or induced traffic effects.
- 5.3 The MSBC (section A5) presents initiatives on walking, cycling, public transport, park and ride, traffic and parking management, and demand management such as travel planning, as "Options considered and implemented" (as opposed to "Highway options" in section A6). It should be made clear that:
- a) These are not presented as alternatives to a highway option, but measures that will be pursued "As well as completing the HM6L" (MSBC A.5.1, opening sentence): they are not independent scheme options
 - b) In the MSBC there are no sustainable transport measures integral to and costed in the HM6L northern route option: they are things that happen alongside the scheme
- 5.4 The latter point appears to have been a problem in the MSBC submission to DfT, as the scheme has been revised to include a park and ride scheme from the vicinity of M6 J34 along Caton Road to Lancaster city centre. Apart from this, there is little or no detail anywhere in the scheme submission to date, about exactly what might be done where that "would otherwise be difficult to achieve without the proposed development" (SoC, quoted above). Unless LCC comes up with some concrete examples the assertion has little credibility.
- 5.5 The first point to be made in discussion of this subject is that traffic reductions on much of the existing network do not bring about a quantum shift in volumes, and even under LCC's forecasts a considerable amount of the claimed reduction in 2010 has been lost to subsequent traffic growth by 2025 (and if Lancaster's roads behave as observed elsewhere, they are likely to fill up back to original traffic levels rather more quickly than forecast by LCC). The A683 Caton Road/ Morecambe Road would remain a busy route, and the change would not be all that significant to other road users. The one-way system around Lancaster city centre experiences increased traffic southbound and negligible relief north bound. Although some links have significantly reduced forecast traffic levels (A5105 Coast Road, Torrisholme Road), others have significantly increased traffic levels (A6 Slyne, Mellishaw Lane).
- 5.6 In principle, roadspace reallocation can only happen where there is enough roadspace to reallocate, or where traffic volumes decline to the point at which entire roads can be reallocated, or if the principle of 'evaporating traffic' is accepted and roadspace reallocation is used to bring about traffic reduction. If a flow of traffic, no matter how low, remains on a road, it requires at least one lane for that traffic, so reallocation of space requires either adequate existing width or road widening.

- 5.7 In the latter case, wherever there are single lane traffic flows and the road is widened to accommodate say a bus/ cycle lane, there is no reason why this could not happen at existing traffic flows. For example, on Caton Road west of the canal there is one lane of traffic each way at present, and there would have to be one lane each way irrespective of whether the AADF is 24,900 in the 2010 do-minimum scenario or 18,700 in the 'northern route' scenario. The traffic reduction claimed for the HM6L does not release any roadspace for a bus lane. Equally, if there is already room for a bus lane, or if it were proposed to widen the road to accommodate a bus lane, this could take place at either flow level, so it cannot be claimed that the HM6L enables the bus lane.
- 5.8 This pattern is repeated across the network, with most if not all links falling into one of three categories:
- There is potential roadspace for reallocation, but there is not enough traffic reduction to enable it: the best example is Lancaster city centre one-way system (King Street, China Street, North Road, Great John Street etc)
 - There is potential roadspace for reallocation, but it could probably already happen at existing traffic levels: for example the A5105 Coast Road, and perhaps even Greyhound Bridge
 - There is no space for reallocation (one lane in each direction), and there is nowhere near enough traffic reduction to consider closing the road to general traffic
- 5.9 Unless LCC produces specific evidence to the contrary, it should be concluded that there is nowhere that traffic reductions claimed for the HM6L enable reallocation of roadspace to more sustainable modes.
- 5.10 A further problem with LCC's case is that much of the claimed reduction on the existing network is eroded over time. The forecast flows on Caton Road in 2025 with the HM6L are almost exactly the same as baseline flows. If it were the reduction in traffic flows through the HM6L that enables the Caton Road park and ride scheme, then presumably the scheme would be disabled as traffic flows return to existing levels (the alternative argument, that the presence of the park and ride scheme will restrain future traffic growth, is equally applicable to building it without the HM6L, which would be a more sustainable solution).
- 5.11 The other aspect of claimed improvements for more sustainable roads - better road conditions for other road users because of reduced traffic volumes - is by no means straightforward:
- Traffic reductions of 15-20% on busy roads will barely register as any different in terms of ambience for pedestrians and cyclists - they will still be busy roads: even reductions of the order of 30% are unlikely to effect a shift across a threshold from 'unpleasant' to 'pleasant' when the absolute volumes remain high
 - Busy roads with somewhat less traffic than before are not necessarily safer for pedestrians and cyclists: if traffic is flowing faster and more intermittently they can even be more dangerous

- Bus journey times could be marginally improved - though this has to be demonstrated rather than assumed - but reliability remains a problem unless buses have dedicated roadspace. The traffic forecasts for the HM6L do not indicate a state of grace in which congestion is eliminated (there was congestion in Lancaster 30 years ago, at traffic volumes almost certainly well below the forecast levels with the HM6L in place)
 - The key area for unreliability of bus operations is Lancaster city centre, where there is little or no forecast congestion relief, and no firm proposals for dedicated roadspace
- 5.12 In the absence of evidence to the contrary, it must be concluded that the claim by LCC, that the HM6L enables enhancements to the more sustainable transport modes in ways that would otherwise be difficult to achieve, and “would therefore allow a move towards more sustainable patterns of transport” (SoC quoted in 5.1 above), is completely without foundation.

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