## Covering comment

Dear Sir/Madame,

This has been submitted somewhat late, apologies, but John (my father) [redacted] Consequently, we have been finalising this document with him in a somewhat less than ideal manner.

He is keen however to remain engaged and is happy to make presentations in line with this report, [redacted] and well again.

Apologies if this submission has been done with any errors in the process, I am not familiar with the mechanics of how this proceeds.

Kind Regards

Marc Elliott (son of John Elliott)

## SUBMISSION TO LTC INQUIRY BY JOHN ELLIOTT

**Summary of submission**

While as a single objector without any additional resource to help me I have had to concentrate on particular subject areas. Accordingly this submission is constructed as follows:

1. Personal statement and background covering particularly my own experiences in a 50+ year involvement with Transport and Highways and particularly with major roads and Thames Crossings.
2. The scheme as presently proposed (as understood by me) as part of Strategic Road Scheme development in recent times. Potential flaws including key government objectives, modelling and appraisal will be outlined but covered in more detail in section 3.
3. Flaws in modelling, assessment methods and results with particular reference to Thames Crossings. Mention is also made to approaches made by LGTAG *(Local Government Technical Advisors Group*) and other professional bodies on the flaws in the system, these flaws are recognised by a very large part of the Transport Planning fraternity. The flaws are not only in the systems but also often in the scheme promoters choices
4. Practical issues and recent changes to the scheme and wider area; this section includes my contact with past ministers and leaders of the Councils started well before this examination and the implications of the LTC on the wider road network
5. Suggestions on what could or should be done instead of the LTC to address real problems on Outer London and South East road network
6. Conclusions – summary of why this scheme should have been rejected out of hand before this examination was even started and what NH and DfT should be doing

### 1. Personal Statement and background.

1.1 I have had 54 years' experience in Transport Planning including Modelling and Assessment of Transport Projects - from the very beginning of my career in the aircraft industry.

1.2 I am a Chartered Civil Engineer from 1975 and also a Fellow of the Chartered Institute of Highways and Transportation and a Chartered Manager. I have been involved with the Local Government Technical Advisers Group - LGTAG (a LA Chief Engineers professional society) since its inception in the late 1990's as well as being involved with or being a member of its predecessors – the Association of London Borough Engineers and Surveyors and the Association of Chief Technical Officers of the District Councils. I am presently working for LGTAG as a Special Adviser. I will refer to submissions made by LGTAG but the contents of this objection have otherwise not had any LGTAG backing – LGTAG have serious objections to the funding and processing of the Strategic Road Programme overall but do not get involved in individual schemes.

1.3 I have held various full time posts for Local Authorities up to Director of Technical Services and Planning level - with Barking and Dagenham and Aylesbury Vale. I have also worked full time for two major Transport Consultancies - Colin Buchanan and Partners and Scott Wilson Kirkpatrick. Of particular relevance to this inquiry I have been head of transport planning and chief traffic engineer

for two Central London boroughs and been responsible for Transport Policy and Assessment for the whole of London for the Greater London Council.

1.4 For Major Road Schemes I was involved in the modelling and assessment on the scheme from the promotors side for Ministry of Transport on the A1, as an objector to various Ministry schemes on the North Circular Road and the East London River Crossing and its even worse successor (in Transport terms) - The Thames Gateway Bridge. I have been intimately involved in meetings and discussions with the Minister of Transport (Peter Bottomley) for Trunk Road schemes in East London. I have also had extensive discussions with previous Transport Ministers Steven Norris and Stephen Ladyman. All three Ministers are largely in agreement with the thrust of the evidence I am submitting, as is Lord Deben/ John Gummer and Lord John Prescott - as previous Secretaries of State.

1.5 While I have the strongest objections to this scheme and indeed most of the road enlargements being promoted by National Highways, I have actively promoted certain local road schemes in inner west London, Barking and Dagenham, Aylesbury Vale and in East Kent for Pfizer. So I am not anti-road per se.

1.6 I have very limited personal gains or losses from the construction of this scheme except for the extra traffic and congestion that will inconvenience my car or long distance coach travel in Kent. Furthermore this will be seriously exacerbated by the potential of now not widening of the M2 (new hard shoulder running abandoned by Government) and the potential lack of proper links to the M20. I have no pecuniary benefit whatsoever in my involvement with the Lower Thames Crossing but I do however wish for any further work on this scheme to be stopped to save public (taxpayers like me) money being totally wasted on a scheme with no lasting benefits and doing lasting long term damage.

1.7 I hope therefore that my evidence should be one of the most impartial submissions to this Examination; so I hope of particular use to the Examiners. I would however say that I have no extra resources apart from my own and therefore am not able to be fully informed of specific evidence submitted by the promoters or others. I am of course available to explain and be questioned on my evidence by the Examiners or others.

## 2. The proposed scheme (as understood by me) and general flaws in proposals

2.1 The scheme is effectively a bypass to a bypass, which I understand has as its main objectives to reduce traffic and congestion at the Dartford Crossing. The amount of relief even in National Highways predictions are, I understand, very limited. On the basis of past experience of major road schemes in and around London and particularly Thames Crossings, even this claimed relief is unlikely to be realised in practice (this is covered in the section 3). Furthermore the extra congestion caused by the extra traffic will undoubtably cause new or greatly exacerbated congestion on other roads in Kent, Essex, other points on the M25 and probably outer London as well.

2.2 I understand that part of the explanation for the use and need for extra capacity is the large number of ‘freight’ vehicles. I have not had time to thoroughly investigate this issue but as a fairly frequent user of the crossing it is notable that ‘white van man’ constitutes a significant proportion of the ‘freight’. Essex van users going to Kent and the reverse during peak times adds little to the overall economy. Genuine larger freight vehicles tend to avoid driving during peak times. It would also be hoped that we should be making efforts to transfer some of this to the rail network.

2.3 The so called ‘economic benefits’ are a very ‘variable feast’ and, at the time of writing this submission, I believe the adjusted Benefit/Cost ratio was 1.22 but has varied considerably during the

scheme development. I recall that for the East London River Crossing scheme in the 1980's the figure varied between 5 and 0.5 at various times! I should add that the way the modelling interacts with the cost benefit analysis, presently used for most schemes, tends to give a number which has no reliable bearing whatsoever with any real economic benefit. This view appears to be supported by the vast majority of transport professionals. LGTAG has another programmed meeting with DfT officials shortly on this subject. If this meeting again doesn't produce any progress we hope to meet with the Minister's SPAD or the Minister himself - he personally confirmed to me at the LGTAG President's Seminar on 7th June that if we didn't make progress we should contact him direct.

2.4 If the economic (time and accident) savings were a true reflection of the benefits, then the £9 billion that this scheme is presently predicted to cost could be much better spent on virtually any transport project including accident remedial measures, bus and cycle lanes, improved pedestrian crossings, any traffic limitation strategy, etc.. Furthermore if economic benefits are really being sought from transport investments maintaining footways to avoid the number of trips presently taking place so reducing the loss of working time and NHS costs in treatment would be much more relevant. Similarly providing local access roads (or bus and cycle routes etc. to help new businesses to develop would have much greater and real economic benefits.

2.5 The Government has previously stated that the most important objective (for the planet?) is to reduce carbon dioxide output. The scheme will increase carbon dioxide from the construction materials and the extra traffic generated. Any slight saving on peak time traffic congestion/ stop start motoring is likely to be infinitesimal especially as many cars now have a stop start function!

2.6 The government have also stated that they want to reduce car traffic and increase use of Railways etc – this scheme would obviously do the opposite.

2.7 On these two grounds (2.5 and 2.6) alone the scheme should never have been contemplated.

2.8 While it is recognised that traffic congestion at the Dartford Crossing is variable and can be severe, such congestion is commonplace elsewhere on the M25 and elsewhere in the South East as it normally is anywhere near large cities anywhere in the world. This is especially true where there is excessive spending on road provision and not on traffic limitation and sustainable travel.

2.9 It appears that the DfT and National Highways have been instrumental themselves in creating and concentrating the congestion at Dartford. Widening of radial routes and their junctions to the M25 have undoubtably allowed more long distance car traffic; hard shoulder running on many sections of the M25 have also allowed more car use exacerbating the problem. Immediately local to the southern side of the crossing - the part of the Strategic Road Network I use most often - the relatively recent overbridge avoiding the roundabout junction between the A2 and the M25/Approach to the crossing and the fairly massive widening of the A2 and M2 have allowed more car commuting to various destinations across London and the South East.

2.10 It is notable that Peter Bottomley, when the London Borough of Barking and Dagenham had discussions with him on local and national schemes in 1987, accepted that a sensible strategy on road enlargement should ensure that the 'most difficult' section of a route should be implemented first. The present approach by National Highways appears to be the exact opposite. It should also be noted that Peter Bottomley said when he was Transport Minister that he wasn't building any more roads for people to commute in their one and a half ton metal vests.

2.11 From my association with Thames crossings I am aware that there are operational problems with the Dartford Crossing:

- Going north using the tunnels, some high vehicles have to use the outer lane tunnels and very high vehicles are excluded from northbound use of the crossing.
- There are high pollution levels around Dartford itself which are seriously detrimental to health, however generally the Strategic Road network is responsible for about 30% of the general background levels of pollution which are without doubt a major issue for London and the south east. This can only be exacerbated in London, Essex and Kent by the provision of extra river crossing capacity.
- In the southbound direction very high winds sometimes result in the closure of the bridge and the use of one tunnel for northbound and the other for southbound traffic.

While I am not aware that these considerations are part of the scheme's justification the second has been exacerbated by DfT and National Highways Strategies increasing the traffic on the M25 as described above and the first and last could at least be mitigated in other ways as suggested in section 5 below.

## 3. Problems and flaws in modelling and assessment processes particularly for river crossings

3.1 As mentioned in para 2.3 above, LGTAG and together with Chartered Institute of Highways and Transportation (CIHT), the Transport Planning Society and the Royal Town Planning Institute have endeavoured to change the present processes. LGTAG and others have been trying to achieve this independently for many years - so far to no avail. It has been mentioned that there is another programmed meeting with the DfT on this subject. These professional societies and seemingly most Transport Professionals are in agreement that the overall Modelling and Assessment processes need radical change. More immediately I have noted that some of the Examiner's questions in ISH1 do ask questions on this subject for which the real answers are likely to be covered in this evidence and may not be by the promoters.

3.2 Perhaps, following LGTAG's programmed meeting with DfT officials, some fundamental changes in the justification and approval methods may be introduced but I won't 'hold my breath'! This particular meeting has been developed from personal contact with ex Transport Minister Steve Norris. I have been aware for many years that the 'black box' of both modelling and assessment is unintelligible to many transport specialists let alone the public or our political decision makers. Following an exchange of e-mails with Mr Norris he suggested I contact the SPAD Richard Coates. LGTAG thought that an approach by the Group, rather than a personal one from me, could be particularly helpful. The full correspondence, documents and links to other documents are available if the Examiners would wish to see, check and understand them, however the main issues are summarised in this section.

3.3 Predicting how any significant transport proposal might be used is accepted as important for many organisations. It is also recognised widely that travel time and costs to an individual is important to understand how behaviour might change with any proposal. Further, reliability is critical for customers to ensure that major roads do not put out of balance existing road networks. In the demand estimation stage people's behaviour needs to be understood and apart from running costs, fares, tolls etc and time, other factors such as views, interesting places en route etc do affect people's choices. However demand prediction is not the same and won't have the same values as any societal benefits or costs of any proposal. I would like to add here as an example that my first experience of demand modelling was for different types of civil aircraft (eg short or vertical take-off from say close to City

centres) operating in competition with more conventional aircraft, high speed trains etc. – the company was only interested in the commercial value not any societal value.

3.4 For most major new infrastructure a computer based transport model is used to predict demand often using a four stage model of generation, distribution, modal split and finally assignment to the transport network. It is important that any assumptions and consequences of changing any assumptions within any of the four stages are understandable, understood and accepted as representative of the real situation by the public and decision makers. The results from such models often do not reflect reality and are part of the process to reach a calculated 'economic benefit'. In practice the assumptions can be built in or varied, or more colloquially 'fiddled', to produce the desired answer. LGTAG members often have to use consultants to produce a result that might deliver funding from Government for their own schemes. Government funded schemes on national networks are understood to have a similar 'requirement' before they can go ahead. For the LTC it seems that the 'benefit', at this stage, is very low.

3.5 For river crossings and indeed many other roads near large towns, the models used have seriously underpredicted demand. For example:

- As I recall a single lane in each direction would have been sufficient capacity to cope with predicted flows on the M25.
- The DfT's East London River Crossing was predicted to 'generate' only 1/3 of its traffic, 2/3 was predicted to come from traffic reductions elsewhere – it is notable that peak hour traffic doubled on Blackwall Tunnel dualling in less than a year from opening without any significant reductions on any other crossings.
- Every major road constructed in London or immediate home counties by the DfT or indeed the Greater London Council generated enough traffic to fill it (or some other nearby pinch point) within about 1-2 years for peak traffic and about 5 years for all day volumes. This was proven by my team when I worked for the GLC. Similar studies by others and indeed the Standing Advisory Committee on Trunk Road Assessment (SACTRA) report of 1994 confirmed such findings. Steve Norris said at the time of the SACTRA report that 'we' wouldn't have built as many roads as we have if we had known this before. Professor Phil Goodwin, who is part of the Thurrock Council team, can confirm this situation. – some previously developed slides demonstrate this and are in the appendix.

3.6 The lessons learnt, or need to be taken into account, for the modelling stage when applied to this scheme are:

- Any modelling, its assumptions and results need checking for reasonableness. This should be able to be interrogated by a truly independent 'auditor'. The Examiners are in a good position to do this, however within the required timescale this would be difficult.
- Any traffic growth figure should reflect reality – traffic will not normally grow on any Strategic Road in the South East unless extra capacity is provided but will grow quickly to fill available space when extra capacity is provided. This finding has a fundamental effect on the calculation of the benefit cost ratio.

3.7 The benefits of a scheme are calculated largely as a small difference between two enormous numbers of travel time on a 'do nothing' or 'do minimum' situation and with the scheme. The time costs for each situation are based on a large number of assumptions many of which can be adjusted by the modeller. Mathematically taking the difference between two large numbers is totally unsound

especially when each is based on so many assumptions. While I am not a mathematician a retired Maths Professor Chris Wright of Middlesex University has confirmed this fact.

3.8 Some of the main assumptions commonly used in assessments that are highly dubious are:

- Traffic levels will grow at the DfT predicted growth rate for the do nothing option.
- Little or no allowance is made for extra traffic generated by the new road – this is very large for river crossings especially near very big cities.
- Study areas for assessment do not include network effects of extra or even diverted traffic. (At one North Circular Road (NCR) inquiry it was identified that traffic going in a different direction to the alignment of the NCR was routed along the new fast NCR to join a different radial route towards London outside the study area with accordingly no congestion on that route included – this obviously false modelled routing added false time savings to the benefits of the widened NCR)
- Speed flow graphs used to give speeds on links at different traffic levels have 'tails' for the economic assessment – these allow ever increasing flows well beyond the ultimate capacity of the link (during the ELRC inquiry the DfT consultant was positive a single lane could carry I recall about 5000 vehicles per hour at about 10 miles per hour; I recall calculating at the time that the vehicle plus headway between the vehicles would work out at about 9 feet!
- In certain circumstances the modeller can choose a variable to suit - maximising the so called benefits (I recall personally changing the assumed speed on minor residential roads in Hampstead Garden Suburb between 24 and 22mph for both the do nothing and with scheme situation - this in turn made an expensive scheme for the A1 through the area viable in economic terms).
- I have not personally explored another important stage in the modelling process calibration – this stage attempts to adjust particularly the assignment stage so it produces as closely as possible what actually appears on the network at the scheme data collection phase. I am aware that for the Thames Gateway Bridge it was not possible to 'fiddle' the factors sufficiently to represent what actually happened (Phil Goodwin I know has a better understanding of those inaccuracies). It needs to be added also that the more calibration that needs to be or is done with the local model, the model becomes less reliable at predicting the future.

## 4. Practical issues and recent changes

4.1 It used to be thought that new or widened roads would make journeys for car users and others faster and they would also remove traffic from sensitive residential areas or town centres. Many professional Transport Planners, including myself, did hold such views, however now that there is such a weight of evidence that this is not the case, we still have a problem in convincing the public and many politicians of the reality. Indeed even Steve Norris in my recent exchanges with him said *"And yet National Highways still have a huge capital program ---- Each new generation needs to learn the lesson anew."*

4.2 Before this inquiry started, I wrote to key people including Secretaries of State, Council leaders and MPs offering to meet them and explain the real situation. Unfortunately with frequent changes in Ministers and the difficulties of getting a hearing on such complications no meetings have taken place before the Examination started. Nevertheless the Leader of Kent County Council after I advised of the likely changes following the abandonment of new 'Smart' Motorways, did write to me as follows:

'*Thank you for your further comments which we will consider and take under advisement as we participate in the Examination of the Lower Thames Crossing Development Consent Order application.*'

4.3 I understand that the proposals at present link the M25 well north of the Thames via various accesses including the Strategic Routes of the A13 and A127 then via one connection just south of the river terminating at the new junction with the A2/M2. For traffic bound for Maidstone, Folkestone, the Channel Tunnel etc it would then join the M2 across the Medway Valley and then, via the very complex junction 3, travel down the A229 Bluebell Hill. This route is well used at present and would find difficulty in carrying significantly more traffic especially large lorries. It would also utilise the Orsett Cock Junction on the A13 to allow connectivity for the Port of Tilbury/Freeport due to severance of the A1089 southbound from the A13. For traffic bound for Sittingbourne, Sheppey, Thanet, Canterbury or Dover/ferries they would have to travel along a 4 lane M2 and through the M2/A2 junction 7 Brenley's corner (for Canterbury and Dover). This junction already suffers considerable delays and has high flows of HGVs. This route would certainly become the favoured route to Dover for almost all traffic coming from north of the Thames.

4.4 I understand that the programmed National Highways schemes would have included the M2 between Junction 4 (Gillingham) and junction 7 (Brenley's corner) as a 'Smart' motorway. The government have recently stopped all new Smart Motorways. Widening the whole of this section of the M2 with a hard shoulder would be very expensive indeed – this was the issue I raised with Roger Gough (as described in para 4.2 above) and that such works should be guaranteed as completed before the LTC. It should be noted as a regular user of this section of the M2 it is frequently very full.

4.5 There would be other serious problems on the road network south of the River from the extra traffic on the LTC. Apart from the already mentioned M25 itself, traffic say from Southend, Basildon, Chelmsford, Brentwood etc intending to go in a south westerly direction would have to experience inadequate roads and congestion on leaving the LTC. Traffic trying to join the LTC from the A13 eastbound (from London or M25) would have no connection and so would have to detour to the Stanford A1014 Junction, go up an already busy and traffic lighted roundabout then back westbound on the A13 to the new LGC slip road which would be just after (but not accessible) from the Orsett Cock A128 Junction.

4.6 In addition to the obvious problems with the LTC when completed, there are likely to be serious problems particularly for Kent residents during construction. I have used junction 5 of the M2 (A249 junction) on a fairly regular basis. This junction is presently being reconstructed - again probably totally out of scale with the rest of the road network. However during its construction this relatively minor scheme has resulted in some very inconvenient closures which I am sure were not adequately expected, considered, evaluated or consulted upon before the scheme was started. For example for several months the diversion route for traffic travelling east along the M2 bound for Sheppey, Sittingbourne and similar destinations had a signed 22 mile diversion!

4.7 Other movements from the junction 5 scheme have also been very difficult during construction. National Highways confirmed to me that 'normal' type delays were included in the (very false, as described in section 3 above) modelling and benefit cost analysis. However the actual construction programme had not been worked out fully for junction 5 and was up to the construction company. It would be much more concerning if the same situation arose along the LTC route. I contend that it is very important that businesses and residents are properly informed of the likely real traffic situation during construction before approval of this scheme if it passes through the basic examination.

4.8 In the actual design of this scheme and indeed most of NH's programme, the design capacity of a single lane I believe is 2000 vehicles per hour. While I am fully aware that this is indeed what happens on many strategic roads even at unfortunately very high traffic speeds. The DfT themselves advise for safety reasons that a minimum of two seconds between vehicles should be maintained by drivers. Two seconds between vehicles would represent 1800 vehicles per hour per lane if vehicles were exactly evenly distributed and of zero length! It is perhaps appropriate that the DfT try other methods than road building to reduce traffic levels on most main roads to the 'safety' limit and that as a matter of urgency DfT/NH should ensure speeds are reduced to limit injuries when accidents do happen.

## 5. Suggestions on what could or should be done before any further work is done on the LTC

5.1 Reference has been made above to the common perception amongst large sections of the public and a very few remaining Transport Planners that a new road or enlargement will reduce congestion. It has been proven beyond doubt that this perception is not real in practice. However when a scheme first opens it is an absolute pleasure for motorists for a few months not least because the construction programme has been grim for them. However most motorists, if they think about it, realise that even with a little bit of (temporary) local traffic relief all they do is to get to the next traffic queue quicker and that traffic queue becomes much worse that it was before. There is a lot of scope for a public awareness/education programmes to explain the real situation rather than giving the opposite message. In my dealings with Thames Gateway Bridge it was quite easy at public and business meetings to explain the truth and change the opinions.

5.2 Studies were carried out on how the M25 could cope with its traffic about 15 years ago. The conclusion of those studies was that some sort of road pricing should be introduced as a priority. Furthermore a very senior Transport Planner (Denvil Coombe) added at a professional meeting that extra capacity was also included in the studies to 'placate the road lobby' (my interpretation of his words). Unfortunately DfT/NH have added to the M25 capacity without any efforts at traffic reduction as described above. Introducing some sort of traffic limitation methods should now be a priority for the DfT/NH and is well within their brief to investigate before the LTC is approved.

5.3 Government could work much harder with Local Government to fund and introduce measures to limit traffic at source by funding appropriate traffic reduction schemes locally. Across government departments it should really ensure that planned developments are really sustainable. Developers certainly haven't delivered on sustainability as measures outside their control or development site cannot presently be implemented (eg compulsory purchase of land for footways, footpaths, bicycle routes, bus routes etc. on a similar basis that CPOs are used for new roads)

5.4 Remove the hard shoulder running lanes that have been introduced – it is quite likely that MPs did want all hard shoulder running removed but they might have been persuaded otherwise by the potential increase in traffic congestion. There are many cases where capacity has been removed from the network and traffic disappears after a few months. My earliest experience of this was when general traffic was removed from Oxford Street, but I did investigate a number of other schemes during my period at the Greater London Council. So removing some of the capacity of recent NH schemes could be a useful contribution to reducing traffic on the Dartford crossing after a bit of initial pain.

5.5 As mentioned in Para 4.8 DfT/NH have been actively promoting dangerous situations - by their own standards! A first step at least limiting the severity/injuries on their whole network should be

expenditure on bringing traffic speeds down over the whole network especially when roads are full. This is well within their brief and should be top of the priority list before anything else. 40 mph speed limits rigidly enforced throughout by average speed cameras seems the most obvious measure. A known lower speed limit is also likely to reduce traffic levels because at least the perception would be that the car journey took longer.

5.6 Selective use of bus and lorry lanes may also be helpful.

5.7 It was mentioned above that there are operational problems with Dartford Crossing which do not seem to have been included in the justification. These are significantly solvable:

- On very high vehicles there is nothing stopping a contra flow lane or lanes on the bridge where the capacity is re-provided in one of the tunnels
- On very windy days, extreme congestion could be avoided by making use of the bridge for cars only (lorries would still have to use other routes but the worst of the congestion (which I have personally experienced) could be avoided.

While schemes to do this would be a little complex but like many other complex traffic schemes it should be achievable and at vastly less cost than the LTC.

## 6. Conclusions

6.1 The LTC fails on overarching government policy objectives and in my view should be rejected out of hand on such issues; it is also extremely poor value for money by any evaluation and it will not deliver its claimed benefits. Furthermore it is certainly within the power of NH on its own without even the help of Central Government departments.to deal with other measures that would have a much greater benefit in the immediate area and other points on the local road network including the Strategic roads.

6.2 The considerations are listed below:

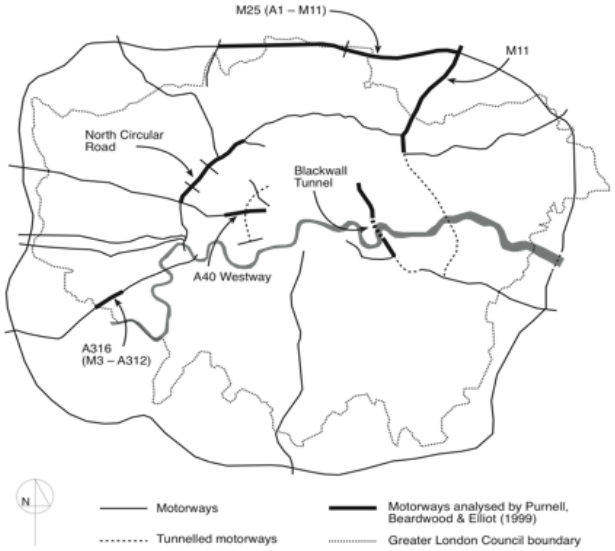
- It will increase CO2 production from the concrete required for construction and the extra traffic it will generate. Very recent reports on climate change paint the priority for CO2 reduction even higher than when the government declared the climate emergency
- It will increase traffic substantially while government policy is to reduce it.
- From NH's own analysis it will increase traffic in the area north and south of the Thames; NH's estimates don't properly take into account the extra traffic generated by the scheme
- NH's own estimate of the benefit/cost ratio is presently just over 1. The methodology and the so called benefits are highly spurious in any case
- There are a range of issues listed in section 5 which could readily decrease any perceived need for this scheme which are entirely within the purview of NH and central government:
    - Public information education programme (see 5.1 above)
    - Traffic reduction measures on M25 see 5.2 above)
    - Assisting in helping local authorities to reduce 'trip ends' and provide more locally sustainable transport options (5.3)
    - Remove the hard shoulder running and other recently introduced capacity increases on the Strategic Road Network.(5.4)
    - Tackle real safety issues of too much too fast and too close together traffic (5.5)
    - Introduce bus and lorry lanes on the M25 to ensure essential traffic is prioritised
    - Deal with problems of undersized Dartford tunnels and extreme wind events by introducing appropriate traffic management measures.

6.3 I hope I have demonstrated to the Examiners that the LTC is appalling value for money, it won't achieve any of its desired objectives and NH certainly with the help of DfT can actually address any of the problems it is directed to 'solve' at far lower costs. I have back up data/information for the content of this submission and I would be pleased to be before the Examiners to answer any questions.

JE18-7-2023

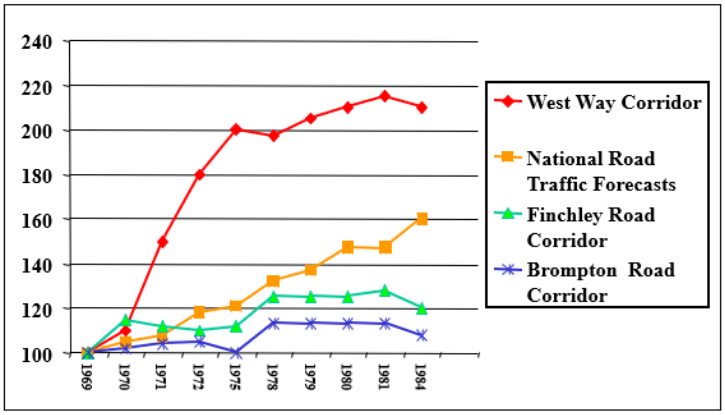
**Appendix 1** - **Extracts of links between road building and traffic:**

# 2.2 GLC induced traffic growth studies1966-1986




# 2.3 Road Construction doesn't work

Please see http://www.eco-logica.co.uk/pdf/wtpp05.2.pdf - see editorial and pages 28 onwards



## 2.4 Peak period traffic in the Blackwall Tunnel corridor, 1968/69

| | AM peak northbound | | | PM peak southbound | | |
|---|---|---|---|---|---|---|
| **Road** | 1968 | 1969 | % change | 1968 | 1969 | % change |
| **Tower Bridge** | 1510 | 1410 | -7 | 1368 | 1504 | +10 |
| **Rotherhithe Tunnel** | 1033 | 1055 | +2 | 969 | 990 | +2 |
| **Blackwall Tunnel** | 1287 | 2648 | +106 | 1166 | 2376 | +104 |
| **Dartford Tunnel** | 1114 | 1012 | -9 | 1030 | 960 | -7 |
| **Total** | 4944 | 6115 | +24 | 4533 | 5830 | +29 |

Source: Research Memorandum No.185, GLC 1969

## 2.1 Adverse consequences - Evidence to HOCTC River crossings Inquiry

(by JE,KB,PG and JW)

"the main effects of strategic transport infrastructure and particularly roads (without associated and comprehensive demand management and strict land use planning) is to encourage:

- dispersal of populations,
- more development on green field rather than brown field sites,
- lower density car orientated developments,
- considerable extra traffic on the road network
- often a worse environment and
- worse transport for those without the availability of a car."