

**TOWN AND COUNTRY PLANNING ACT 1990**

**APPEAL BY KENT INTERNATIONAL GATEWAY LTD**

**KENT INTERNATIONAL GATEWAY (KIG),  
MAIDSTONE**

**PROOF OF EVIDENCE**

**of Paul William Harwood BSc CEng MICE MIHT  
on behalf of the Secretary of State for Transport**

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## APPENDICES

- 1 – Latest version of the Travel Plan, dated 18 August 2009
- 2 – HA response to the Travel Plan, dated 24 August 2009

## 1 INTRODUCTION

### 1.1 Personal Particulars

1.1.1 My name is Paul William Harwood. I am a Regional Manager in the Highways Agency (HA). I am responsible for a team within the HA which represents the interests of the Secretary of State for Transport in respect of spatial planning and development control matters in the counties of Kent, East Sussex and West Sussex. I am a Chartered Engineer, a Member of the Institution of Civil Engineers and a Member of the Institution of Highways and Transportation. I hold a Bachelors degree in Civil Engineering.

1.1.2 I appear at this Inquiry on behalf of the Secretary of State for Transport in his role as the highway authority for the trunk road and motorway network, referred to hereafter as the Strategic Road Network in England (SRNE).

1.1.3 My evidence below deals with outstanding issues with the appeal site at the time of submission of evidence.

### 1.2 Statement of Common Ground

1.2.1 Following on from submission of the HA's Statement of Case for the appeal, we have been working closely with other parties to this appeal to resolve our outstanding issues. As a result of this collaboration, we have agreed with the Appellant a Bilateral Statement of Common Ground on Strategic Highways Issues (SoCG, Core Document 8.7), dated 1 September 2009.

1.2.2 The outstanding areas of concern to the HA can be summarised as follows:

- Material detriment to the safety and operation of the SRNE arising from the proposed development during the implementation of Phase 2 (including Phase 3) of Operation Stack;

- Unresolved issues in respect of the Travel Plan for the proposed development; and
- Unresolved issues in respect of mitigation measures on the SRNE needed as a result of the proposed development.

1.2.3 My evidence deals with these issues separately. For the Inspectors' information, all other issues of concern raised in the HA's Statement of Case have since been resolved, as explained in detail within the SoCG.

1.2.4 We are also awaiting further information from Kent County Council (KCC), specifically KCC's VISUM transport model, which KCC is using to analyse the impact of KIG on the highway network. We are satisfied that the model validates adequately for strategic transport analysis of the Maidstone area. However, at the time of writing this evidence, KCC are undertaking further work on the model to attempt to demonstrate to the satisfaction of the HA that the model is suitable for assessing the impact of the proposed development on Junction 8 of the M20 and hope to provide us with output from the VISUM model to this effect.

1.2.5 Consequently, the HA must reserve the right to comment on any such model outputs when they have been completed. Future outputs from the VISUM model may cause the HA to reconsider the conclusions drawn in Section 6 of the SoCG, although preliminary drafts of KCC's assessment work indicate that this is unlikely.

### **1.3 Scope of Evidence**

1.3.1 This evidence is based on the Government's policy on planning and the SRNE and applies Government policy to the impact of the proposed development on the M20 motorway and M20 Junction 8.

1.3.2 In this evidence I consider:

- The HA's responsibilities;

- Government policy relating to Planning and the Strategic Road Network;
- The HA's position in relation to the outstanding issues raised above; and
- The proper approach to the determination of the appeal, as it relates to strategic highways issues.

## 2 THE HIGHWAYS AGENCY'S RESPONSIBILITIES

### 2.1 Introduction

2.1.1 The HA is an executive agency of the Department for Transport (DfT), whose current role and responsibilities are set out in a July 2009 Framework Document. The HA acts on behalf of the Secretary of State for Transport to manage, maintain and improve the SRNE, which consists of most motorways and major A roads. The HA is responsible for the delivery of the Government's objectives and programmes for improving the performance, reliability and safety of the SRNE. The HA is also responsible for supporting the delivery of the Government's objectives in relation to sustainable development by responding to specific development proposals in respect of the potential impact on the capability of the SRNE.

2.1.2 The HA implements the Government's (spatial planning) policy as set out in DfT Circular 02/2007 (Planning and the Strategic Road Network) on behalf of the Secretary of State for Transport. This document sets out how the HA will deal with planning applications. Paragraphs 4 and 5 of the Circular as detailed below clearly state the HA's responsibilities:

*"The efficient movement of people and goods on the strategic road network has a key part to play in supporting the economy. The HA, on behalf of the Secretary of State for Transport, is responsible for managing and operating a safe and efficient strategic road network in England. Amongst its activities, the HA is responsible for considering the potential impact on the network of proposals for new developments. Part of this remit is to enable the network to support the economic viability and sustainable growth of regions".*

*"In carrying out this role, the HA will work co-operatively within the framework of the Government's policies for planning, growth areas, regeneration, integrated transport and sustainability. Spatial planning has a key role to play in delivering all these policies".*

- 2.1.3 In addition to the above, paragraph 41 of the Circular explains that the HA will only consider *“Modifications to existing junctions [...] only where traffic flows and safety will not be adversely affected”*.
- 2.1.4 In relation to this appeal, the M20 motorway, Junction 8 itself and the link road between Junction 8 and the A20 are part of the SRNE. The SRNE terminates where the link road joins the A20 roundabout.
- 2.1.5 The HA's remaining primary concern relates to the potential impact of the proposed development on the SRNE – particularly the M20 Junction 8 and its slip roads. The HA currently has no plans itself to improve this part of the M20.

### **3 OUTSTANDING ISSUES**

#### **3.1 Introduction**

3.1.1 This section deals with the issues raised in paragraph 1.2.2 above and sets out in detail the HA's outstanding concerns.

#### **3.2 Operation Stack**

3.2.1 Operation Stack is the method of using sections of the M20 motorway in Kent to park heavy goods vehicles (HGVs) when the Channel Tunnel or ferry routes across the Channel are disrupted. Operation Stack is comprised of three separate phases which may be implemented by Kent Police, which briefly can be described as follows:

- Phase 1 - HGV's are parked on the M20 coastbound carriageway between Junctions 11 (Hythe) and 12 (Cheriton) while other traffic is diverted along the A20 via Junction 11;
- Phase 2 - When the M20 between junctions 11 and 12 becomes full, HGVs are parked on the coast bound carriageway between Junctions 8 (Maidstone) and 9 (Ashford), while other traffic is diverted along the A20; and
- Phase 3 – If the coast bound carriageway between Junctions 8 and 9 becomes full, HGVs will be parked on the M20 London bound carriageway between junctions 9 and 8, while other traffic is diverted along the A20.

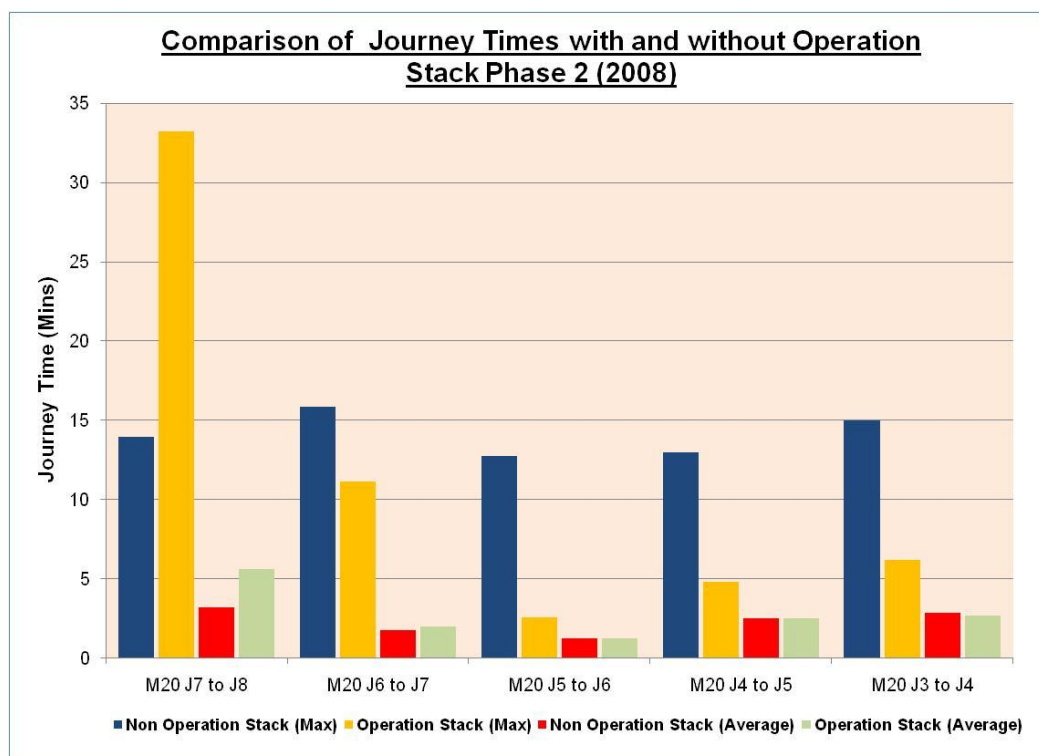
3.2.2 Section 10 of the SoCG explains Operation Stack in greater detail and the manner in which it is implemented by the Kent Police on the M20. The SoCG also provides details of the historical implementation of Operation Stack, including the frequency of its use and the number of days upon which Phase 2 of Operation Stack has been implemented. The HA considers that the proposed development is only likely to materially impact the SRNE during the implementation of Phase 2 (including Phase 3) of Operation Stack.

3.2.3 The HA currently maintains, operates and develops several traffic databases and associated applications. The Traffic Flow Data System (TRADS) holds information on

traffic flows at sites on the network. The Journey Time Database (JTDB) system holds information on journey times and traffic flows for links of the network. These two databases are known collectively as the HA Traffic Information System (HATRIS).

3.2.4 The HATRIS database has been interrogated to understand the impact of Phase 2 Operation Stack on the surrounding highway network. We have assumed that the data collected is robust and, although we have carried out checks to ensure the results are sensible, we have not fully validated the results.

3.2.5 We have obtained journey time data for every hour in 2008 across a study area extending west from M20 Junction 8 as far as M20 Junction 3. From this we have determined the maximum and average journey times between each of the M20 junctions, both with and without Operation Stack Phase 2. The graph below highlights the results of this analysis.



3.2.6 The graph illustrates that maximum delays due to Phase 2 Operation Stack are approximately twice that of any other incident between Junctions 7 and 8 of the M20. Operation Stack also impacts adversely on average journey times between Junctions 6 and 8.

3.2.7 The HA considers that the proposed development should not worsen the operability of Operation Stack in the future and is concerned that the proposed development will materially cause detriment to the operability of the Operation Stack process in the following ways:

- An increase in traffic using M20 Junction 8 will in turn increase queue length and duration and vehicle delay on the mainline M20 motorway. Stationary traffic on high speed roads represents a serious hazard because accidents that occur are likely to have more serious or fatal consequences than average; and
- An increase in HGV traffic using M20 Junction 8 during times of Operation Stack Phase 2 (including Phase 3) will exacerbate further the policing element of sorting traffic into the correct lanes on approach to Junction 8.

3.2.8 For the reasons stated above, the HA considers it essential that the incidence and duration of queuing is minimised during times when Phase 2 (including Phase 3) of Operation Stack is implemented.

3.2.9 To date the Appellant has agreed that, in principle, it is necessary to secure an Operational Management Plan for Operation Stack as detailed in Section 13 of the SoCG. At the time of writing this evidence, details relating to the content of the Operation Management Plan have not been agreed.

3.2.10 The Appellant has not offered any form of mitigation in respect of the impact of the proposed development on the SRNE when Operation Stack when Phases 2 and 3 are

in place. If considered necessary, the HA can assist the inquiry by presenting further evidence in respect of the impact of Operation Stack on the M20 motorway and its junctions.

### **3.3 Travel Plan**

3.3.1 The Appellant circulated the latest version of the proposed Travel Plan on the 18 August 2009 and this is appended in Annex 1 of this proof of evidence.

3.3.2 The HA's response to the draft Travel Plan was sent to the Appellant by our consultants, Parsons Brinckerhoff, on the 27 August 2009 and is appended in Annex 2 to this proof of evidence.

3.3.3 To summarise, we are broadly content with the structure of the document and are pleased that it contains vehicle targets and caps, together with a method to monitor the success of the Travel Plan and measures to implement should the targets and caps not be achieved.

3.3.4 On the basis of the agreed trip generation for the KIG scenario (see Chapter 3 of the SoCG), we consider that the following caps must be included within Section 7 of the Travel Plan:

- The car peak is a maximum of 273 cars inbound in the AM peak (between 0800-0900 hours) and 278 cars outbound in the PM peak (between 1700-1800 hours);
- The HGV peak hour cap is a total of 78 HGVs in one direction in each peak hour (between 0800-0900 and 1700-1800 hours respectively);
- The HGV daily maximum is a total of 3910 HGVs (3402 plus 15%) in a 24 hour period commencing at midnight; and

- The construction worker cap is a total of 220 car trips in one direction in each peak hour (between 0800-0900 and 1700-1800 hours respectively).

3.3.5 With these caps in place, the HA is satisfied that the impact of the development will be as assumed in paragraphs 6.1 to 6.3 of the SoCG and that the mitigation as agreed in Section 7 of the SoCG is appropriate. If the suggested caps are not included within the Travel Plan, it may be necessary for the HA to reconsider its position in respect of the proposed mitigation and consequently, may contend that additional mitigation in respect of the SRNE is necessary.

3.3.6 In the event that the caps (as detailed above) are included within the Travel Plan, but are breached at any point in the future, the Travel Plan indicates that a financial penalty will be triggered. The level of penalty is yet to be determined and we await receipt of the Appellant's proposal as to the appropriate level of penalty. It is anticipated that the penalty will be applied towards the implementation of further remedial measures as identified in Section 12.4 of the latest version of the draft Travel Plan, dated 18 August 2009.

3.3.7 We also consider that proposed remedial measures within the Travel Plan should incorporate contributions towards further transport interventions. Whilst we do not rule out the possibility that these may include additional capacity improvements to the SRNE, we accept that such measures must be considered as a last resort.

3.3.8 We have yet to receive the final version of the proposed Travel Plan and, therefore, we have limited confidence that the Plan will address the issues identified above. If the Travel Plan addresses these issues adequately, the HA will be satisfied that the proposed development will impact the SRNE as anticipated in Section 3 of the SoCG and that the mitigation measures identified in Section 7 of the SoCG will be adequate.

3.3.9 However, we regard the agreement and implementation of an adequate Travel Plan to be essential if the proposed development is to be permitted. A Travel Plan (as

described herein) is necessary in order to satisfactorily minimise the impact of the proposed development on the SRNE. The proposed mitigation measures and Travel Plan will ensure that a greater volume of traffic capacity on the SRNE will be available for the essential transport needs of other development.

### **3.4 Mitigation Requirements**

3.4.1 The HA has two concerns regarding the mitigation of the proposed development on the SRNE.

3.4.2 Firstly, the principle of a need to mitigate the impact of the proposed development on the M20 westbound merge connector road has been accepted by the Appellant, so too has the layout type required. However, the Appellant's geometric design of this proposed upgrade from a Type B Parallel merge to a Type C Ghost Island merge represents a departure from DMRB standard (Core Document 6.5.13). The Appellant is preparing a submission on the proposed scheme and its departures for the HA to consider, in accordance with our formal process. Consequently, discussions on the drawing to be appended to any planning condition are still ongoing. Only when the proposed scheme has progressed satisfactorily through the formal departures process and a Stage 1 Road Safety Audit, will we be in a position to attach a drawing number to a condition.

3.4.3 Secondly, the analysis of the worst-case scenario, as described in Sections 4 and 6 of the SoCG, indicates that both the M20 Junction 8 and the M20 / A20 Link Road junction are operating at or close to capacity in the AM and PM peak hours.

3.4.4 Paragraph 6.2 of TA23/81 (Design Manual for Roads and Bridges Volume 6 Section 2) states that 'The Reference Flow / Capacity Ratio (RFC) is an indicator of the likely performance of a junction under a future year traffic loading. Due to site to site variation there is a standard error of prediction of the entry capacity by the formula of + or – 15% for any site. Thus if any entry RFC ratio of approximately 85% occurs,

queuing will theoretically be avoided in the chosen design year peak hour in 5 out of 6 cases'.

3.4.5 Table 26 in Section 6.4 of the SoCG shows that M20 Junction 8 has an RFC of 88% on the M20 west approach in 2017. Therefore we submit that this junction is operating at capacity in the peak hours under the worst-case assumptions.

3.4.6 Table 30 in Section 6.6 of the SoCG shows that the M20 / A20 link road junction has an RFC of 85% on the M20 link road arm in 2017 in the PM peak period. This indicates that the junction is operating at capacity in the peak hour under the worst-case assumptions.

3.4.7 We acknowledge that the capacity issues at these locations are marginal and would occur only in the worst-case scenario. However, the impact of the proposed development will be to use up most, if not all, of the spare traffic capacity on the sections concerned. This will make it more likely that any significant subsequent development, for example that proposed in the South East Plan, will need to fund further improvements to M20 Junction 8.

**4 CONSIDERATION OF THE APPEAL**

4.1.1 In testing the scenarios within the SoCG, we have concluded that the SRNE will operate acceptably with the improvements proposed under the Appellant's scenario (Section 3 of the SoCG), although the geometric design of those improvements are yet to pass through the Departures Approval process.

4.1.2 Also, we consider that the development will have particular and detrimental impacts on the safety and operation of the SRNE during the implementation of Phase 2 (including Phase 3) of Operation Stack and, to date, the Appellant has not offered any mitigation in this respect.

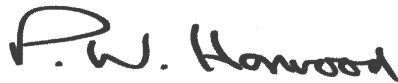
4.1.3 Furthermore, we consider that it is necessary and reasonable for the Appellant to secure mitigation measures to offset the impacts of the proposed development on the operability of Phase 2 (including Phase 3) of Operation Stack and contend that the planning permission should only be granted if suitable mitigation measures can be secured by way of a planning condition or planning obligation. In the event that the Appellant is not prepared to offer suitable mitigation we contend that planning permission should not be granted.

4.1.4 The SoCG acknowledges the need for a Travel Plan, however, we contend that the Travel Plan must include suitable vehicle caps ensure that the proposed development will not have a materially detrimental impact on the SRNE. If the Appellant is not prepared to offer suitable vehicle caps, we contend that planning permission should not be granted.

4.1.5 Should the decision maker conclude that it is appropriate to grant planning permission, the HA considers that any permission should be made subject to the planning conditions and section 106 planning obligations to the same effect as those detailed in Section 13 of the SoCG.

**4.2 Other Issues**

4.2.1 We are conscious of the fact that, in their evidence, other Rule 6 parties may raise strategic highways issues in addition to those addressed in this proof of evidence. In that event, the HA reserves the right to respond to any such evidence by way of supplementary, or rebuttal evidence.



Signed .....  
P. W. Harwood

Dated 11 September 2009.....