Final Position Statement from National Highways at Deadline 8

Title:	National Highways Position Statement – Deadline 8
Reference:	TR050007
Applicant:	Tritax Symmetry
Proposal:	Application by Tritax Symmetry (Hinckley) Limited for an Order Granting Development Consent for the Hinckley National Rail Freight Interchange
Author:	National Highways (20040073)
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National Highways ("we") has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

This submission forms National Highways' Deadline 8 response and is National Highways Final Position Statement on this Application.

Overview

National Highways made representations at the commencement of Examination through our Written Representation dated 10 October 2023 (REP1-182). At that time, we had stated that whilst we did not object to the principle of development, there were several significant concerns in relation to the transport and highways assessment and the dDCO which still required resolution. This position was then re-iterated at Issue Specific Hearing 6 on 24 January 2024 where we provided our opinion to the ExA that the remaining work required was unlikely to be resolved during the Examination period.

We have continued to work with the Applicant on all these matters, providing consistent advice since pre-application started approximately six years ago. Whilst

some progress has been made, it is regrettable that several key issues remain unresolved.

At Deadline 7, the Applicant was required to submit an updated Statement of Common Ground; however due to very late receipt of this by National Highways on the lead up to Deadline 7, we were not in a position to respond at the time. We have now had an opportunity to review this and to come to an agreement on the document, which we understand the Applicant will submit as part of their Deadline 8 submission.

Assessment methodology

National Highways has worked with the Applicant through the course of this application, from pre-application through to the current position. Through these discussions, the overarching methodology of traffic impact assessment has been utilised and agreed as follows:

- Undertake strategic assessment utilising Leicestershire County Council's Pan-Regional Transport Model (PRTM) alongside Warwickshire's Rugby Rural Area Model (RRAM) to identify the strategic traffic impact;
- Furness outputs from the PRTM to develop an agreed set of traffic flows (with and without development) at key junctions;
- Utilise the furness traffic flows to undertake detailed operational analysis at each of the key locations of impact.

The key locations of impact on the SRN are now considered to be:

- M69J2
- M69J1
- M1J21/M69J3
- A5/A47 Longshoot and Dodwells junctions
- A5 Cross in Hand
- A5/A426 Gibbet Hill

In addition, National Highways has previously raised concerns on the Sustainable Travel Strategy and the HGV Route Management Strategy with the Applicant and our position on these matters is also detailed in this submission.

M69J2

The M69J2 serves as the access location to the development, with new northbound off-slips and southbound on-slips proposed at the junction. As such it is a key location both for the development and in terms of impact on the SRN. It is therefore unfortunate that traffic flows, VISSIM modelling and design have not been resolved at this location. National Highways has had extensive discussions with the Applicant regarding the proposed design; however in the absence of agreed traffic flow and modelling these designs cannot be fully agreed.

Operational impact

In National Highways Deadline 7 response (REP7-089) we identified that the furness methodology had not been correctly applied at the M69J2. This was communicated to the Applicant prior to Deadline 7; however no further corrections have been received. Traffic demands are therefore not yet agreed. In summary, the incorrect application of the furness methodology results in an under-estimate of the traffic flows at the junction and therefore National Highways position is that the impact on the SRN has not been robustly assessed.

Nevertheless National Highways has proceeded with a review of the network layout within the reference case VISSIM model. In our Deadline 7 Position Statement, we requested the Applicant to provide justification for changes made to modelling parameters from those in the approved validated base model. Whilst awaiting this information National Highways ha also proceeded with reviewing model performance and raised queries regarding the non-standard approach to applying traffic demands to the model, considering the model base year is several years apart from the 2023 survey data which the forecast flows are based on. Information was only provided to National Highways on 06 March 2024 to address both of these matters. Considering the need to run four modelling scenarios (AM and PM for WoD and WD), this evidently does not leave sufficient time for National Highways to review and provide a definitive position.

National Highways also proceeded with reviewing the network layout of the proposed site access model. However changes are required to parameters such as lane lengths which currently overestimate capacity, Desired Speed Decisions and lack of reduced speed areas which do not suitably slow down vehicles approaching the junction, and Lane change distances which are overstated. These changes need to be made before the performance of the proposed scheme can be considered.

Design update

National Highways has had extensive discussions with the Applicant regarding the proposed design of the M69J2 and have reviewed several iterations of the design. At Deadline 7, a further revision was submitted by the Applicant which we have reviewed alongside the updated Geometric Design Strategy Record [HRF-BWB-HML-M69-RP-CH-00101 Rev 3]. Throughout these discussions, National Highways has maintained the caveat that in order to fully agree the design, traffic flows and operational assessment must be agreed. Given that these matters remain outstanding, the proposals at M69J2 are not agreed.

Notwithstanding, National Highways has reviewed the additional information submitted at Deadline 7. We note that although the diverge type has been changed to the correct cross section (DG2A) within the body of the GDSR document, the cross-section panels shown on drawing no. HRF-BWB-HML-M69-DR-CH-0160 Rev P02 are not consistent with DMRB CD 127 Figure 2.1.1N1b and appear to be non-compliant with mandatory requirements. Cross section locations have also been mislabelled on drawing no. HRF-BWB-HML-M69-DR-CH-0151 Rev P02.

Further, the latest revision identifies a number of existing non-compliances with the NB merge and SB diverge connector roads cross sections and the tie-in with the roundabout junction (see GDSR para 2.7 to 2.14). We understand that the Applicant wishes to retain these elements for which Departures from Standard will be required. We have not seen evidence of the Departures being approved provisionally. A Stage 1 Road Safety Audit (RSA1) has also not been undertaken in the absence of a fixed design (awaiting agreed traffic flows) and as such would constitute non-adherence to

DfT Policy (Circular 01/2022). It should be noted that the Applicant has not had any discussions with National Highways regarding the proposed maintenance boundaries.

M69J1

Furnessed forecast traffic flows are accepted for the traffic demand at M69J1. In our Deadline 7 Position Statement (REP7-089), National Highways requested the Applicant to provide justification for why changes to modelling parameters had been made from the approved validated base model. Whilst awaiting this information National Highways proceeded with reviewing the model performance and raised queries regarding the non-standard approach to applying traffic demands to the model, considering the model base year is several years apart from the 2023 survey data which the forecast flows are based on. Information was only provided to National Highways on 06 March 2024 to address both of these matters. Considering the need to run four modelling scenarios (AM and PM for WoD and WD), this evidently does not leave sufficient time for National Highways to review and provide a definitive position on its performance.

A5 Gibbet Hill

As part of our role as Highway Authority for the SRN, National Highways is considering the operational issues which currently exist at the A5 Gibbet Hill junction. Given the complexity of the issues at the junction, and considering the number of development proposals which will affect the operation of the junction, we have reached a position of agreement with the affected Local Highway and Planning Authorities to secure contributions in lieu of schemes for mitigation at this junction.

The preferred methodology has been for the impact of any single development to be assessed individually, and for a mitigation scheme to be costed to form the basis of the contribution value. The principle for a contribution has been agreed with the Applicant (and with Leicestershire County Council and Warwickshire County Council). However there are significant concerns as to how the contribution value has been calculated by the Applicant and the mechanisms proposed for securing it.

Operational impacts

In our Deadline 7 Position Statement (REP7-089) we confirmed that we were satisfied with the traffic flows which were produced by the Applicant having applied the agreed furness methodology correctly. We note that these have now been submitted as part of the Applicant's Deadline 7 response in "Hinckley NRFI Cross in Hand and Gibbet Roundabout Technical Note Rev 01" (REP7-076). It should be noted that in discussions leading up to Deadline 7, we identified to the Applicant that the flows should be seen as revised flows to account for errors in the application of the agreed furness methodology rather than sensitivity test flows. The Technical Note continues to reference these as 'sensitivity test' flows, which National Highways considers to be misleading.

Nonetheless, on the basis of the revised flows it can be seen that the development is likely to result in increases in demand totalling approximately 70 vehicles in each of the peak periods. The majority of these increases are on the A5 southbound in the AM peak and the A5 northbound in the PM peak. These are the arms where, operationally, there is the greatest delay presently, therefore any increases on these movements will adversely affect the operation of the junction and the SRN.

Through the course of our engagement with the Applicant, National Highways has maintained the position that the A5 Gibbet Hill junction should be assessed in VISSIM. We have also provided to the Applicant a version of our VISSIM model to assist in this assessment. Whilst there was some discussion regarding the appropriate version to utilise, it was confirmed on 2 February 2024 that the Applicant was already in possession of the appropriate version at the time. However, the Applicant has taken the position of assessing the operational impact of the A5 Gibbet Hill junction in Junctions 10.

National Highways concerns with the use of Junctions 10 is due to the limitations of the software which does not account for constraints on the circulatory and therefore assumes sufficient capacity for all vehicles once the circulatory is entered. From review of the swept path showing how vehicles shall track the circulatory, a particular

concern was raised regarding HGVs and their inability to route side-by-side as the proposed mitigation could encourage. National Highways advised the Junctions 10 modelling be updated to reflect this constraint (as well as addressing other model issues such as geometric parameters and missing HGV proportions in the traffic flow matrices). The results provided demonstrate severe capacity constraints. Additionally, no analysis has been undertaken by the Applicant to evidence that the 2023 base year assessment results are representative of the 2023 observed conditions. This is necessary to provide confidence in the suitability of the Junctions 10 model and thereafter the modelling results.

Notwithstanding National Highways position that the A5 Gibbet Hill should be modelled within VISSIM, we have nonetheless, undertaken a review of the Junctions 10 assessment undertaken by the Applicant.

Further issues found with the Junctions 10 model related to highly imbalanced lane use at the Rugby Road approach to the junction. Due to the turning movements and lanes assigned to vehicles on this approach, the vast majority of vehicles use the nearside lane only, as the offside lane has only been assigned to A5 north movements. This effectively results in the link operating as a single lane approach, thus potentially overestimating the likely congestion on this arm. The implications of this to National Highways is that it will underestimate the opposing flows on the circulatory interacting with vehicles entering from the A5 northbound arm. The model results in this case would underestimate the performance issues at this A5 approach.

Contribution strategy

We note that the Applicant has proposed a contribution of £344,704.83. In the absence of an appropriately modelled solution, National Highways raises the following concerns regarding the proposed value.

Principles of the proposed scheme in-lieu:

Some modelling parameters have been adjusted to account for the geometric constraints at the A5 Gibbet Hill roundabout. However, the scheme which has been proposed in-lieu raises a number of concerns. Of key concern is that the widening of

the approaches are unlikely to be fully utilised as there is insufficient width around the circulatory carriageway to enable vehicles to travel alongside HGVs without risk of side collisions. This is a critical point as the predominantly flow at the A5 Gibbet Hill roundabout is along the A5 corridor and therefore in order to fully utilise the proposed approach widening, vehicles must be able to travel side-by-side safely.

Basis of cost estimate:

The Applicant has provided National Highways with the cost estimate for the proposed scheme in lieu of £344,704.83. The following outlines our concerns regarding the cost estimate:

- The source of the unit rates has not been identified. It is therefore unclear if they are appropriate for the type and scale of scheme.
- The cost estimate has excluded any drainage considerations. The scheme in-lieu consists of kerb line adjustments. There are drainage assets alongside the kerbline which would be affected by any works along the kerb line. It is also likely that they will need to be relocated to ensure the positive drainage system continues to function (i.e. gullies need to be relocated alongside the kerbline to 'catch' the surface water).
- The scale of works is likely to be underestimated. The principle of the scheme in-lieu is to enhance the capacity at the entries to the junction. However the circulatory carriageway is a restricting factor in being able to fully utilise this capacity. Vehicle swept paths provided by the Applicant show that at most, an articulated vehicle can only travel in tandem with a 7.5tonne vehicle around the circulatory. In these circumstances, there is very little margin for error. Consequently, it is unlikely to happen in practice and would, in such instances, give rise to safety concerns for potential side collisions. Therefore in order to fully realise the benefits of the increased entry capacities, the circulatory carriageway would also need some degree of widening and lining.
- The allowance for Series 2700 (Accommodation Works, Works for Statutory Undertakers, Provisional Sums and Prime Costs) at £65k is underestimated. Our experience at this location is that there are particularly shallow services, including HV/LV cables and BT assets which lie along the kerbline. These are

likely result in increases in statutory undertakers requirements for any works involving excavation (as will be the case for kerbline and tie-in works). Previous correspondence with statutory undertakers in relation to works at this location have suggested that £65k (plus inflationary costs given the historic date of these estimates) should be allowed for statutory undertakers works alone.

- The risk (contingency) value of 10% is underestimated. The DfT TAG Unit A1.2 advises that for motorway, trunk road and local road schemes, this value should be 46% at Stage 1 (PCF Options Stage). Even at construction preparation stage, the advised value is 20%. National Highways has not received any evidence (for example stats searches, construction details, design on topographical survey or details of contractor engagement) to suggest that the design is at any more of an advanced stage than concept.

It should be noted that the Applicant has provided two different cost estimates, with the higher one said to account for 'additional works to enhance/repair kerbs and surface course in the area of the works'. Given the assets in this location, it is National Highways position that 'additional works' would be required to enable correct tie in and potential damage to assets during construction.

The Applicant has stated that they believe the c.£345k contribution to be proportionate the scale of development, referencing the Lutterworth East and Magna Park contributions at c£1.24m and c£2.53m respectively. It should be noted that these values were determined a number of years ago in 2022 with indexation factors included into the agreements and therefore, present day comparative figures would be higher.

National Highways view is that the Lutterworth East development is of a different nature to the current Application. It is a primarily residential development and as it is to the east of the M1, the predominant A5 north-south movements which are of concern at the A5 Gibbet Hill junction would be largely unaffected by the Lutterworth East development as these would be intercepted by the M1. It should be noted that the Lutterworth East development is also a predominantly residential development and hence the impact arising from HGVs would be less.

Turning to the Magna Park application, the Applicant has identified that the scale of impact at the junction arising from Magna Park was approximately 140 vehicles in the peak hour. The nature of impact, given the travel patterns and vehicle mix, would be similar between the Application and the Magna Park development. As stated above the scale of impact anticipated from the development is approximately 70 pcus in the peak periods.

National Highways view is that taking into account the above deficiencies in the proposed scheme in-lieu, the cost estimate provided by the Applicant, other 'proxy' comparisons for reasonableness and accounting for indexation, the likely value of contribution for the scheme in-lieu would be in the region of £1.5m-£2m.

Mechanism for securing contributions

The Applicant has proposed a Unilateral Undertaking (UU) with contributions to be made to Leicestershire County Council. National Highways understands that under the UU, the Applicant will make the contribution directly to Leicestershire County Council; however there are no provisions which require the funds to be forwarded to us nor governing how the funds are to be spent by us. The risks of a UU to National Highways are that there are no legally enforceable obligations on the Local Highways Authority receiving the contribution to forward across the funds to National Highways nor to forward the funds at any particular time.

At present, contributions from other developments for the A5 Gibbet Hill roundabout are held by Warwickshire County Council, with provisions for the funds to be transferred to National Highways. Our preferred approach is that of a S106 agreement to which the Applicant and the Local Highway Authority (be it Leicestershire County Council or Warwickshire County Council) is a Party which will provide a legally enforceable mechanism for transfer of funds to National Highways.

A5 Cross in Hand

National Highways has agreed the flows at the A5 Cross in Hand junction. These have been provided through the 'Hinckley NRFI Cross in Hand and Gibbet Roundabout Technical Note Rev 01' **(REP7-076)** which was submitted by the Applicant at Deadline 7. As with the A5 Gibbet Hill Roundabout flows, National Highways considers that these flows should be read as 'revised flows' to account for errors in the application of the Furness methodology rather than 'sensitivity test' flows.

Operational impact

National Highways has raised a number of queries with the Applicant regarding the Junctions 10 assessment which has been provided, including inaccuracies in the modelling which require addressing. Requests for further information have been made to enable review of the modelling, however the submission was incomplete with missing geometric design information. Further, a number of the geometric parameters which could be reviewed were incorrect and required amendment. Although we consider these changes likely to have a minimal effect on the junction performance, the modelling also fails to account for HGV demands at the junction. Considering the high HGV use, this change could significantly adversely affect junction operation.

Our position is therefore that the modelling outputs cannot be relied upon. It is National Highways view that should the necessary corrections be made to the model, this is likely to show that the operation of the A5 Cross in Hand, and that arising from the impact of development would be worse, affecting the operation of the SRN.

Mitigation works

The Applicant has proposed mitigation works at the the A5 Cross in Hand junction (as Works No 16). When considering the modelling inaccuracies (i.e. operation likely to be worse than reported) National Highways holds concerns that the mitigation works would not be sufficient to ensure the safe and efficient operation of the SRN, and that a more comprehensive scheme is likely to be required. As stated in our Deadline 7 response, there are queries regarding the mitigation requirements at this location. It

should also be noted that no RSA1 to the requirements of GG119 has been submitted for the proposed mitigation works.

We note that as part of the Applicant's Deadline 7 submissions, additional provisions have been incorporated into the dDCO for the agreement around works. They fail to address National Highways' concerns in the likely event that Works No 16 are insufficient in respect of the impacts on the SRN. Our Deadline 8 representation titled "National Highways Submission at Deadline 8 - Comments on the dDCO and Protected Provisions submitted at Deadline 7 and update on lands position" document proposes suggested amendments to Requirement 5(3) of the dDCO. To clarify however, wording proposed by the Applicant and our suggested amendments still fail to resolve National Highways' concerns given that if agreement is not reached at the A5 Cross in Hand junction, insufficient mitigation in Works No 16 would be carried out with resulting adverse impacts on the SRN.

A5/A47 Longshoot and Dodwells junctions

National Highways provided comments on the A5/A47 Longshoot and Dodwells junctions as part of our Deadline 5 responses. At the time, the flows had not been fully agreed and as such only a network coding review of the VISSIM model was undertaken. We have now agreed the traffic flows with the Applicant and have proceeded to review the operational assessment in the VISSIM model.

We have raised concerns with the 5-year difference between the 2023 survey data from which the future forecast traffic impacts are derived, and the 2018 survey data used to validate the VISSIM model. This is not standard practice due to the potential for turning proportions to change significantly in this time. National Highways only received information to address this on 06 March and have reviewed this to determine to what extent this non-standard practice affects the ability of the model to replicate realistic performance. This review has raised further matters to be clarified by the Applicant regarding the suitability of the traffic flows in the context of this VISSIM model's validated base year.

Traffic on the A5 through the modelled network increases minimally as a result of the development. However it is noted that there are some reductions to traffic flows on other arms of these two junctions with the development, with a total reduction in traffic flows through the Dodwells roundabout. This is mainly as a result of the proposed M69J2 slip roads which provide an alternative access to the M69 from the general area. Therefore, overall, albeit in the absence of robust modelling, our view is that further mitigation at Longshoot and Dodwells junctions are unlikely to be required as a result of the proposed development.

M1J21/M69J3

M1J21/M69J3 is a critical location on the SRN. It is a complex junction, where two motorways meet and with multiple segregated left turn lanes and merge/diverge arrangements. As such, National Highways position has consistently been that this junction must be assessed in VISSIM, a position which has been resisted by the Applicant. Leicestershire County Council have also offered access to their Paramics model, which National Highways would have considered to be a suitable alternative approach to modelling, subject to review. We are not aware that the Applicant has sought to utilise this model.

The Applicant has submitted a LinSig model to demonstrate the impacts of the development at this junction. National Highways raised concerns with the limitations of LinSig to model such a complex junction, which are exacerbated by the extent of congestion issues present.

Observations at the M1 northbound on-slip show severe congestion, affecting the circulatory and adjacent M69 eastbound approach to the junction. As LinSig has the potential to overestimate exit-arm capacity for vehicles leaving the circulatory, and as three of the four approaches provide left turners with the ability to bypass the circulatory, these demands are ignored in the LinSig model, and could exacerbate the issue.

The Applicant provided a dedicated Technical Note "M1 J21 Modelling Note" **(REP5-051)** at Deadline 5 to address these concerns, and sought to demonstrate how this LinSig model had been produced to appropriately account for these operational issues. The Technical Note acknowledges the M1 northbound on-slip constraint and explains the methodology adopted to appropriately model this. Although we agree with the approach, we require details be submitted to verify the model's validation to ensure this has been applied suitably and that the model validates well.

National Highways have asked the Applicant to provide evidence of this validation, and although some information has been received, no signal specification. This was requested and the Applicant has instead directed us to a 3rd party model in a historic, unrelated planning application.

It is therefore not possible for National Highways to conclude how the M1J21 is likely to be affected by the proposed development. However, given the existing operational issues and the increases in demand arising from the proposed development, we consider that the proposed development is likely to adversely affect the safe and efficient operation of the SRN.

Sustainable Travel Strategy

National Highways has previously raised concerns regarding the Sustainable Travel Strategy. Whilst the overarching principles and the approach to the Travel Plan are agreed, as are the annual reviews and measures being provided at Day 1, the key issues of concern have been the lack of pedestrian provision, the lack of transparency over its management and delivery and the lack of surety over the delivery of aspirational/corrective measures. National Highways considers that it is not in line with the DfT Circular 01/22, with particular reference to Para 13.

HGV Route Management Strategy

Whilst noting that the SRN is the appropriate route for HGVs to be taking, National Highways has previously raised concerns regarding the management of high-sided

vehicles, and ensuring that the frequency of bridge strikes at the low bridge on the A5 is not increased as a result of the additional traffic movements from the proposal.

The Applicant has clarified that advisory routeings avoiding the A5 low bridge will be issued to operators on the site. It should be noted there are already, at present, several warning signs and markings on the structure itself and yet bridge strikes do occur. We acknowledge that there are limited opportunities for the Applicant to remedy the situation, and that in any event it is conditioned to the Padge Hall Farm development for remedial measures at this location. However, the risk of bridge strike and the consequential impact of the operation of the SRN are matters of significant concern to National Highways in the interim until the Padge Hall Farm scheme is implemented. Therefore, as an advisory mechanism without any enforcement commitments, National Highways considers that it is insufficient to manage the risks.

Conclusions

National Highways has sought to work with the Applicant through the course of this Application. It remains our position that whilst we do not object to the principle of development, there are several significant concerns in relation to the transport and highways assessment and the dDCO which still require resolution and would result in adverse impacts to the safe and efficient operation of the SRN if left unresolved.