

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Applicants Responses to Deadline 4 Submissions [part 6 - Statutory Bodies]

Document reference: 18.17

Revision: 01

9 February 2024

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(q)

National Highways

No	National Highway	Applicant's Response
<p>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.</p> <p>This note has been produced by National Highways, with the support of its consultants AECOM, as we have reviewed the furnishing methodology, which was supplied by the applicants consultants, BWB Consulting, at deadline 3.</p> <p>Based on this appraisal, we have a number of matters where further information and clarification are required. Our full review is provided in Annex 1 of this document, based on this the National Highways has identified the following matters need to be addressed, and therefore at this time we are unable to agree the furnishing methodology at present.</p>		
1	<p>The Applicant has not responded to National Highway’s comments as set out in the DCO document REP1-182. This is replicated in Section 1 Introduction below</p>	<p>Six comments were provided by NH in summary of the comments within REP1-182, these have been addressed below:</p> <ol style="list-style-type: none"> 1. NH considers furnishing approach sound as outlined with the REP1-182. No further comment required from BWB. 2. NH agrees with methodology undertaken for site access junctions. No further comment required from BWB. 3. BWB have undertaken checks on the furnished matrices and the two areas of concern highlighted are not applicable to the furnished traffic matrices. 4. As stated in Point 3, sense checks have been

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		<p>undertaken for the furnished matrices. The furnishing methodology is double constrained therefore if there is an increase in flows forecast for a particular movement, this will be reflected in the furnished flows.</p> <p>5. Internal Road Capacity Review-(REP2-073 18.4.2) provides detail on internal access junction assessments.</p> <p>6. The proposed development will come forward with the proposed infrastructure including the south facing slips at M69 J2 and A47 link road. Therefore an assessment scenario of 'with development without infrastructure' is not required.</p> <p>There are ongoing discussions with NH to close these points out.</p>
2	<p>No junction turn matrices forecasts were produced in the "Furnishing Spreadsheet" at the M1 junction 20 two-bridge roundabout nor at the A5 'Redgate' elongated roundabout.</p>	<p>M1 Junction 20 and Redgate roundabout impacts within the PRTM were reviewed as part of the Transport Assessment process at NH's request. This identified that the junction experienced a 22% and 11% reduction in traffic flow in the 2036 Future Year scenario (REP3-131 Transport Assessment Table 7-2) and were therefore not taken forward for further capacity assessment.</p>
3	<p>The "Furness spreadsheet" does not document the grade separated flows at M69 junction 1 and at M69 junction 2. This means that the turning</p>	<p>The furnishing spreadsheet only includes flows arriving and departing at identified junctions, therefore any</p>

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	<p>movement matrices cannot be used to assess the future operation efficiency of the M69 slip road merge areas.</p>	<p>grade separated flows (M69 mainline) have been excluded from the furnessing process to ensure these do not skew the results. However, M69 mainline flows have been furnessed separately and included within the respective VISSIM models. The furnessing for the mainline flows have now been shared with NH and the TWG on the 05 February.</p>
4	<p>The Furnessing process could underestimate the magnitude of the HGV turn movements between A5 North and A4303 East at the A5 'Cross In Hand' roundabout if new HGV trips are induced between the Applicant's Hinkley NRFI site and the existing Magna Park regional distribution center.</p>	<p>As agreed on 13th November 2023, new surveys were commissioned at all junctions for which a mitigation measure was identified. This included 'Cross in Hand' roundabout and 'Gibbet' roundabout. The traffic flow turning matrices were furnessed again based on the 2023 surveys. This along with the PRTM distributed development traffic flows would adequately forecast HGV trips induced between the sites mentioned and the Applicant would maintain that the furnessing would not underestimate the HGV turning proportions. The traffic modelling has been updated and was submitted as part of Deadline 4 Transport 2023 Update (document reference: 18.13.2, REP4-131).</p>
5	<p>Directional traffic growth biases in the target flows were noted at the A5 'Gibbet' roundabout. The operational performance of this roundabout should be assessed with alternative turning movement proportions applied to check that these biases are not material to the operational performance of the roundabout.</p>	<p>Updated turning count flows have been used to reassess the junction. The results are set out in Deadline 4 Transport 2023 Update (document reference: 18.13.2, REP4-131). Further detail has been shared on the 07 February 2024 with AECOM on the turning proportion adjustments at Gibbet Hill.</p>


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	<p>1. Introduction</p> <p>National Highways provided a written response – dated 3rd October 2023 – to information submitted to the Hinkley NRFI Development Consent Order (DCO) examination. This written response was allocated the DCO library reference REP1-182.</p> <p>The Applicant has proposed a method of forecasting the traffic flow turning movements for various scenarios – with and without the development and with and without mitigation – at the key junctions using a “Furness” method.</p> <p>This method starts with a matrix of the observed turning movements at each junction and then modifies these matrices – using a process of successive matrix row and column factoring – such that the row totals and column totals match the forecast approach and exit flows extracted from a strategic traffic forecasting model. In this case the strategic traffic forecasting model was a version of the Pan-Regional Transport Model (PRTM) developed jointly for Leicestershire County Council and Leicester City Council and used forecasting years of 2026 and 2036.</p> <p>The “Furnessing Methodology” was reviewed by National Highways and comments were recorded as set out in Appendix B of REP1-182 (see PDF page 120 of 183 and the table on the subsequent pages 122 to 125). In this REP1-182 table, National Highways made some ‘General Observation’ (GO) comments and listed two items of ‘Concern’ (C). The concern comments are reproduced in Figure 1 below:</p>	<p>See response to summary above, where the outstanding points are addressed.</p> <p>The Applicant notes that the methodology is accepted for SRN Junctions:</p> <ul style="list-style-type: none"> • M69 J1 • M69 J2 • M69 J3/ M1 J21 • A5 Dodwells Roundabout • A5 Longshoot <p>In the remaining sections included here, there is agreement to the methodology other than the 6 points set out and addressed above.</p>

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	<p>Figure 1</p> <table border="1"> <thead> <tr> <th data-bbox="353 292 448 379">Issue</th> <th data-bbox="448 292 1064 379">Applicant's Response/Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="353 379 448 647"> <p>3.3</p> <p>(C)</p> </td> <td data-bbox="448 379 1064 647"> <p>Planning Inspectorate Project Reference: TR050007 Environmental Statement Volume 2: Appendices Appendix 8.1: Transport Assessment (part 9 of 20) "Furness Methodology" Document Reference: 6.2.8.1, Revision: 07, Dated: September 2023 SWS document number: HNRFI-SWB-GEN-XX-RP-TR-0022-S4-P03_Furnessing Methodology SWS Reference: NTTZ814, Revision: 4, Status: 94, Issue date: 04/09/2023</p> <p>The objective of the Furness process is to provide forecast turning flows at each junction of interest without and with the proposed Hinckley NRFI highway improvements in place. For the forecasts with the trips generated by the Hinckley NRFI development, these were only assigned to the highway networks with the proposed Hinckley NRFI highway improvements. i.e.</p> <table border="1"> <thead> <tr> <th colspan="3">Traffic forecast scenario (2026 & 2036)</th> </tr> <tr> <th>Assigned to highway network:</th> <th>Without (WO) Dev trips</th> <th>With Hinckley NRFI trips</th> </tr> </thead> <tbody> <tr> <td>Future (committed schemes)</td> <td>A: Without (WO) Dev</td> <td></td> </tr> <tr> <td>Future + NRFI improvements</td> <td>D: WO Dev + Infrastructure</td> <td>C: With Dev + Infrastructure</td> </tr> </tbody> </table> <p>These three forecast flows sets (A, C, D) may be used to understand the environmental impacts of the Hinckley NRFI infrastructure improvements and may be used for operational junction modelling with Hinckley NRFI trips included in the forecasts.</p> <p>These three forecasts flow sets will not identify if a junction or link to be improved is unnecessary. This might be a concern if:</p> <ol style="list-style-type: none"> Environmental impacts are unnecessarily incurred. Carbon budget expended on unnecessary construction. Traffic management during construction delays existing users. There are no traffic forecasts to inform the construction phasing programme. </td> </tr> <tr> <td data-bbox="353 647 448 758"> <p>4.5</p> <p>(C)</p> </td> <td data-bbox="448 647 1064 758"> <p>For the junctions along the development's Spine Road, it is noted that forecast traffic flow matrices will be derived from the reassigned traffic attracted to the Spine Road – as forecasts by PRTMv2.2 – and combined with a 'first principals' method to distribute the trips generated by the proposed development. This method is considered to be a reasonable approach.</p> <p>This paragraph does not explain how the double counting of trips generated by the proposed development (i.e. generated in the PRTMv2.2 forecasts, which loads the trips at a single development zone, and trips added by the 'first principals' method) was addressed.</p> </td> </tr> </tbody> </table> <p>The Summary of National Highway's comments given in Appendix B of REP1-182 (see PDF page 126 of 183) are reproduced in Figure 2 below:</p>	Issue	Applicant's Response/Action	<p>3.3</p> <p>(C)</p>	<p>Planning Inspectorate Project Reference: TR050007 Environmental Statement Volume 2: Appendices Appendix 8.1: Transport Assessment (part 9 of 20) "Furness Methodology" Document Reference: 6.2.8.1, Revision: 07, Dated: September 2023 SWS document number: HNRFI-SWB-GEN-XX-RP-TR-0022-S4-P03_Furnessing Methodology SWS Reference: NTTZ814, Revision: 4, Status: 94, Issue date: 04/09/2023</p> <p>The objective of the Furness process is to provide forecast turning flows at each junction of interest without and with the proposed Hinckley NRFI highway improvements in place. 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	<p>Figure 2:</p> <p>Summary of National Highway's Comments:</p> <ol style="list-style-type: none"> 1. The approach described is generally considered to be sound. The 'Furness' process is a common method used to adjust turning movement flows to match given target forecast flows entering and exiting a junction (i.e. doubly constrained adjustment). 2. A 'Furness' process was applied to 'Prior' matrices that were derived from observed turning movements. However, this method of deriving Prior matrices is ineffective where the junctions would be substantially changed, specifically the two junctions at the north and the south accesses to the development site. The standard method of deriving 'Prior' matrices was adapted to instead derive 'Prior' matrices from the pan regional strategic traffic model's forecast outputs (PRTMv2.2) at these two junctions. This alteration to the agreed approach is reasonable. 3. Whilst the general approach to applying the Furness Process is acceptable, two areas of concern were identified: <ul style="list-style-type: none"> • Where an observed (2018/19) turning movement is zero, or close to zero, the Furness Process will not reflect a reassignment of traffic into the corridor where this is indicated as an effect of the scheme by the forecasting scenario outputs from the PRTM v2.2 traffic forecast model. There is a risk of underestimating the demand for a turning movement at an assessed junction • Where a large observed (2018/19) turning movement has had negative growth applied, due to reassignment effects in the PRTM v2.2 forecast outputs, then this could result in the suppression of a flow demand. This might be important to the junction's operational assessment if the suppressed flow demand is (say) a right turn. 4. These two concerns may be addressed by undertaking a sense check using the PRTM reassignment impacts and turn movements; paying particular attention to the magnitude of flows that turn right at an assessed junction. Alternatively, the operational assessments of the junctions could include sensitivity testing of the derived turning proportions. 5. For those junctions along the Development's spine road, the report contains no description of how design reference flows were derived from PRTMv2.2 forecast outputs (which model loads all development trips at a single zone) combined with a 'first principals' method of distributing trips generated by the development. It is noted that the design of the spine road is not a specific concern for the Strategic Road Network (SRN), such as the M69, A5, M1 corridors. 6. There is no traffic forecasting set for the scenario 'With development generated trips' demand assigned to a 'Without HNF infrastructure network'. This forecasting set would identify if all the link and junction improvements are necessary. This forecasting set would also assist in determining construction phase timing and sequencing of improvements. <p>On 18th December 2023, an email from BWB Consulting to National Highways attached an Excel workbook containing a "Furnessing spreadsheet". The next section 2 contains a summary of the contents of the "Furnessing spreadsheet" and the last section 3 contains National Highway's comments.</p>	

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	<p>2. Summary of “Furnessing Spreadsheet” Contents</p> <p>The supplied “Furnessing spreadsheet” contained 2026 and 2036 forecast year turning movements, for the AM and PM peak hours (in units of Vehicles/hour and PCU/hour), for light and heavy vehicle types.</p> <p>The eleven junctions – in the bullet-point list below – were processed to produce forecast year turning movements and the turn matrices were tabulated in the “Furnessing spreadsheet”.</p> <ul style="list-style-type: none"> · J1 – Ashby Road (A447) / A47. · J37 – Hinckley Rd / New Rd / B581. · J39 – B4669 / Stanton Lane. · J3 – Coventry Rd (B4114) / B581 Broughton Rd. · J13 – M69 Junction 1 / A5. · J14 – A5 / B4666 / A47. (Dodwells Roundabout). · J4 – A5 / A47 The Long Shoot. · J27 – A5 / A4303 / B4027 / Coal Pit Ln. [J24]. · J15 – M1 Junction 21 / M69 Junction 3 / A5460. [J6]. · J20 – M69 Junction 2 · J26 – Gibbet Roundabout (A5 / A426 / Rugby Rd) <p>Note: the ‘J’ numbers in the bullet-point list above correspond to the ‘J’ numbers used in the Transport Assessment [APP-155] as junctions identified for further assessment in its Table 7-1. Refer to extract at Figure 3 below. The junctions in the above bullet point list are highlighted yellow.</p>	<p>See response to summary above.</p>

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	<p>It is noted that some of the junction numbers used in the “Furness spreadsheet” are not consistent between sheets nor with Table 7-1. Care is needed when using the forecast turning movements tabulated in the “Furness spreadsheet” that the correct junction is being examined.</p> <p>Figure 3: Table 7-1 Extracted From Applicant's Transport Assessment</p> <table border="1" data-bbox="338 512 904 1334"> <caption>Table 7-1: Initially Identified Junctions within the AOI for further Assessment</caption> <thead> <tr> <th>Junction Type</th> <th>JCT ID</th> <th>Survey Jct Ref</th> <th>Junction</th> <th>Location</th> </tr> </thead> <tbody> <tr><td rowspan="12">Signal Controlled</td><td>J1</td><td>13</td><td>Ashby Rd / A47</td><td>Hinckley</td></tr> <tr><td>J2</td><td>15</td><td>A47 / B581</td><td>Earl Shilton</td></tr> <tr><td>J3</td><td>21</td><td>B4114 Coventry Rd / B581 Broughton Rd</td><td>East of Stoney Stanton</td></tr> <tr><td>J4</td><td>26</td><td>A47 / A5 (Longshoot)</td><td>Between Hinckley and Nuneaton</td></tr> <tr><td>J5</td><td>27</td><td>Rugby Rd / Brookside</td><td>Hinckley</td></tr> <tr><td>J6</td><td>50</td><td>Coventry Rd / Croft Rd</td><td>Croft</td></tr> <tr><td>J7</td><td>-</td><td>A563 / A5460</td><td>Leicester</td></tr> <tr><td>J8</td><td>65</td><td>A47 / Wilkinson Lane</td><td>Earl Shilton</td></tr> <tr><td>J9</td><td>66</td><td>A47 / B582 Desford Road</td><td>Between Hinckley and Leicester</td></tr> <tr><td>J10</td><td>-</td><td>Braunstone crossroads</td><td>Leicester</td></tr> <tr><td>J11</td><td>-</td><td>B581/Cosby Road, Broughton Astley</td><td>Broughton Astley</td></tr> <tr><td>J12</td><td>-</td><td>Rugby Road/Hawley Road, Hinckley</td><td>Hinckley</td></tr> <tr><td rowspan="7">Signalised Roundabout</td><td>J13</td><td>22</td><td>M69 Junction 1 / A5</td><td>South of Hinckley</td></tr> <tr><td>J14</td><td>25</td><td>A5 / B4666 / A47 (Dodswells)</td><td>SW of Hinckley</td></tr> <tr><td>J15</td><td>-</td><td>M1 Junction 21 / M69 Junction 3</td><td>Leicester</td></tr> <tr><td>J16</td><td>-</td><td>M6 Junction 2</td><td>Coventry</td></tr> <tr><td>J17</td><td>-</td><td>Narborough Rd Roundabout</td><td>Leicester</td></tr> <tr><td>J18</td><td>-</td><td>M6 Junction 3</td><td>Coventry</td></tr> <tr><td>J19</td><td>-</td><td>B4114/Foxhunter roundabout</td><td>SW of Leicester</td></tr> <tr><td rowspan="17">Roundabout</td><td>J20</td><td>52</td><td>M69 Junction 2</td><td>Site access</td></tr> <tr><td>J21</td><td>14</td><td>A47 Leicester Rd / Clickers Way / Carrs Hill</td><td>Barwell</td></tr> <tr><td>J22</td><td>23</td><td>A5 / Logix Rd</td><td>South of Hinckley</td></tr> <tr><td>J23</td><td>24</td><td>A5 / Hammonds Way</td><td>South of Hinckley</td></tr> <tr><td>J24</td><td>29</td><td>The Common Barwell / A47 / B4668 Leicester Rd</td><td>Barwell</td></tr> <tr><td>J25</td><td>-</td><td>M1 junction 20</td><td>Lutterworth</td></tr> <tr><td>J26</td><td>47</td><td>A5 / A426 / Gibbet Ln</td><td>South of Lutterworth</td></tr> <tr><td>J27</td><td>48</td><td>A5 / A4303 / B4027 / Coal Pit Ln</td><td>Magna Park</td></tr> 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	J3	21	B4114 Coventry Rd / B581 Broughton Rd	East of Stoney Stanton																																																																																																																																																																			
	J4	26	A47 / A5 (Longshoot)	Between Hinckley and Nuneaton																																																																																																																																																																			
	J5	27	Rugby Rd / Brookside	Hinckley																																																																																																																																																																			
	J6	50	Coventry Rd / Croft Rd	Croft																																																																																																																																																																			
	J7	-	A563 / A5460	Leicester																																																																																																																																																																			
	J8	65	A47 / Wilkinson Lane	Earl Shilton																																																																																																																																																																			
	J9	66	A47 / B582 Desford Road	Between Hinckley and Leicester																																																																																																																																																																			
	J10	-	Braunstone crossroads	Leicester																																																																																																																																																																			
	J11	-	B581/Cosby Road, Broughton Astley	Broughton Astley																																																																																																																																																																			
	J12	-	Rugby Road/Hawley Road, Hinckley	Hinckley																																																																																																																																																																			
Signalised Roundabout	J13	22	M69 Junction 1 / A5	South of Hinckley																																																																																																																																																																			
	J14	25	A5 / B4666 / A47 (Dodswells)	SW of Hinckley																																																																																																																																																																			
	J15	-	M1 Junction 21 / M69 Junction 3	Leicester																																																																																																																																																																			
	J16	-	M6 Junction 2	Coventry																																																																																																																																																																			
	J17	-	Narborough Rd Roundabout	Leicester																																																																																																																																																																			
	J18	-	M6 Junction 3	Coventry																																																																																																																																																																			
	J19	-	B4114/Foxhunter roundabout	SW of Leicester																																																																																																																																																																			
Roundabout	J20	52	M69 Junction 2	Site access																																																																																																																																																																			
	J21	14	A47 Leicester Rd / Clickers Way / Carrs Hill	Barwell																																																																																																																																																																			
	J22	23	A5 / Logix Rd	South of Hinckley																																																																																																																																																																			
	J23	24	A5 / Hammonds Way	South of Hinckley																																																																																																																																																																			
	J24	29	The Common Barwell / A47 / B4668 Leicester Rd	Barwell																																																																																																																																																																			
	J25	-	M1 junction 20	Lutterworth																																																																																																																																																																			
	J26	47	A5 / A426 / Gibbet Ln	South of Lutterworth																																																																																																																																																																			
	J27	48	A5 / A4303 / B4027 / Coal Pit Ln	Magna Park																																																																																																																																																																			
	J28	-	Lubbesthorpe Way Roundabout	Leicester																																																																																																																																																																			
	J29	-	A47 / A4254 Eastboro Way	Nuneaton																																																																																																																																																																			
	J30	68	A5 / Higham Ln / Nuneaton Ln	West of Hinckley																																																																																																																																																																			
	J31	-	A47/Leicester Road roundabout	North of Earl Shilton																																																																																																																																																																			
	J32	-	A5/Royal Redgate	West of Hinckley																																																																																																																																																																			
	J33	-	A5/A444 Fenny Drayton	West of Hinckley																																																																																																																																																																			
	J34	-	A5/MIRA	West of Hinckley																																																																																																																																																																			
	J35	-	A4303 Frank Whittle	Lutterworth																																																																																																																																																																			
	J36	-	Shilton Road mini-roundabout, Barwell	South of Earl Shilton																																																																																																																																																																			
Mini roundabout	J37	17	Hinckley Rd / New Rd / B581	Stoney Stanton																																																																																																																																																																			
	J38	18	New Rd / Long St / Broughton Rd	Stoney Stanton																																																																																																																																																																			
	J39	19	B4669 / Stanton Ln	Sapcote																																																																																																																																																																			

No	National Highway	Applicant's Response
	<p>3. "Furnessing Spreadsheet" Contents – SRN Junctions</p> <p>National Highways has been appointed by the Secretary of State for Transport as the 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), i.e. trunk roads. National Highway's role is to maintain the safe and efficient operation of the SRN whilst acting as a delivery partner to national economic growth.</p> <p>The SRN routes within the area of interest include: M69, M1 and A5</p> <p>Figure 3: SRN Junctions In The Area Of Interest On: M69, M1, A5</p>  <p>The forecast tuning movements at nine of these junctions with connections</p>	<p>See response to summary above.</p>

No	National Highway	Applicant's Response
	<p>to the SRN roads were examined in more detail. The locations of the nine junctions are labelled in Figure 3 above.</p> <p>The following pages present extracts from the Applicant's "Furnessing spreadsheet" for the 2036 traffic forecasting year. Traffic flows and turning movements are presented in units of PCU/hour, where a PCU (passenger car unit) is equal to one car or half of a heavy goods vehicle. That is to say, in the subsequent capacity assessments, observed and modelled heavy goods vehicles (HGV) were assumed to occupy the capacity of two cars. Converting vehicles to PCU is a standard practice when modelling junction capacity.</p> <p>In the following extracts from the "Furnessing spreadsheet":</p> <ul style="list-style-type: none"> · WoD means 'Without Development', · WoDWS means 'Without Development / With the Applicant's highway Schemes', and · WD means 'With Development' (including highway scheme improvements). 	

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	<p style="text-align: center;">M69 junction 1 / A5 (Stretton Baskerville)</p> <p style="text-align: center;">TA Table 7-1 Ref: <u>J13</u> Survey Jct Ref: <u>22</u> PRTM node: <u>40168</u></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>AM Peak (PCU/Hour)</p> <p style="text-align: center;">SURVEY FLOW</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>Public Road N</td> <td>0</td> <td>99</td> <td>186</td> <td>180</td> <td>685</td> <td>13</td> <td>1163</td> </tr> <tr> <td>1688 E</td> <td>25</td> <td>0</td> <td>46</td> <td>153</td> <td>3</td> <td>276</td> <td>503</td> </tr> <tr> <td>A5 S</td> <td>127</td> <td>28</td> <td>0</td> <td>10</td> <td>349</td> <td>430</td> <td>944</td> </tr> <tr> <td>Baskerville Road S</td> <td>48</td> <td>155</td> <td>0</td> <td>0</td> <td>8</td> <td>79</td> <td>309</td> </tr> <tr> <td>1689 W</td> <td>231</td> <td>2</td> <td>187</td> <td>3</td> <td>11</td> <td>363</td> <td>797</td> </tr> <tr> <td>A5 N</td> <td>6</td> <td>249</td> <td>410</td> <td>102</td> <td>355</td> <td>3</td> <td>1125</td> </tr> <tr> <td>TOTAL</td> <td>457</td> <td>533</td> <td>833</td> <td>1448</td> <td>1411</td> <td>1157</td> <td>4841</td> </tr> </tbody> </table> <p style="text-align: center;">FUTURE YEAR FURNISHED TRAFFIC MATRICES</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Year</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>2023 Observed Flows</td> <td>0</td> <td>99</td> <td>186</td> <td>180</td> <td>685</td> <td>13</td> <td>1163</td> </tr> <tr> <td>WoD 2036 FINAL MATRIX</td> <td>92</td> <td>176</td> <td>144</td> <td>144</td> <td>718</td> <td>7</td> <td>1137</td> </tr> <tr> <td>WoDWS 2036 FINAL MATRIX</td> <td>150</td> <td>268</td> <td>179</td> <td>581</td> <td>9</td> <td>1201</td> </tr> <tr> <td>WoD 2036 FINAL MATRIX</td> <td>156</td> <td>236</td> <td>228</td> <td>586</td> <td>11</td> <td>1217</td> </tr> </tbody> </table> </div> <div style="width: 48%;"> <p>PM Peak (PCU/Hour)</p> <p style="text-align: center;">SURVEY FLOW</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>Public Road N</td> <td>0</td> <td>66</td> <td>139</td> <td>108</td> <td>258</td> <td>21</td> <td>580</td> </tr> <tr> <td>1688 E</td> <td>102</td> <td>0</td> <td>89</td> <td>153</td> <td>1</td> <td>197</td> <td>512</td> </tr> <tr> <td>A5 S</td> <td>234</td> <td>23</td> <td>0</td> <td>19</td> <td>139</td> <td>470</td> <td>881</td> </tr> <tr> <td>Baskerville Road S</td> <td>178</td> <td>133</td> <td>8</td> <td>0</td> <td>34</td> <td>100</td> <td>453</td> </tr> <tr> <td>1689 W</td> <td>887</td> <td>4</td> <td>335</td> <td>17</td> <td>13</td> <td>446</td> <td>1401</td> </tr> <tr> <td>A5 N</td> <td>20</td> <td>200</td> <td>376</td> <td>92</td> <td>297</td> <td>1</td> <td>1066</td> </tr> <tr> <td>TOTAL</td> <td>1121</td> <td>426</td> <td>937</td> <td>385</td> <td>709</td> <td>1233</td> <td>4813</td> </tr> </tbody> </table> <p style="text-align: center;">FUTURE YEAR FURNISHED TRAFFIC MATRICES</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Year</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>2023 Observed Flows</td> <td>66</td> <td>139</td> <td>108</td> <td>258</td> <td>21</td> <td>580</td> <td>1401</td> </tr> <tr> <td>WoD 2036 FINAL MATRIX</td> <td>107</td> <td>52</td> <td>144</td> <td>1</td> <td>198</td> <td>802</td> <td>1376</td> </tr> <tr> <td>WoDWS 2036 FINAL MATRIX</td> <td>129</td> <td>164</td> <td>115</td> <td>298</td> <td>27</td> <td>233</td> <td>1376</td> </tr> <tr> <td>WoD 2036 FINAL MATRIX</td> <td>112</td> <td>169</td> <td>123</td> <td>314</td> <td>26</td> <td>244</td> <td>1376</td> </tr> </tbody> </table> </div> </div> <p>At M69 junction 1, the journeys between M69 East (arm B) and M69 West (arm E) are grade separated and therefore these trips bypass the roundabout and are not documented in the above turn matrices. This means that the above forecast turning movement matrices cannot be used to assess the future operation efficiency of the M69 slip road merge areas.</p> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 4,841PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 5,684PCU/hour (+17%). Most of this AM traffic growth is attributed to the SRN routes from A5 South (+20%) and from M69 West (+45%).</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction were 4,813PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 5,915PCU/hour (+23%). Most of this PM traffic growth is attributed to the SRN routes from A5 South (+56%) and from M69 West (+24%). The effect of</p>	Junction Arm	A	B	C	D	E	F	TOTAL	Public Road N	0	99	186	180	685	13	1163	1688 E	25	0	46	153	3	276	503	A5 S	127	28	0	10	349	430	944	Baskerville Road S	48	155	0	0	8	79	309	1689 W	231	2	187	3	11	363	797	A5 N	6	249	410	102	355	3	1125	TOTAL	457	533	833	1448	1411	1157	4841	Year	A	B	C	D	E	F	TOTAL	2023 Observed Flows	0	99	186	180	685	13	1163	WoD 2036 FINAL MATRIX	92	176	144	144	718	7	1137	WoDWS 2036 FINAL MATRIX	150	268	179	581	9	1201	WoD 2036 FINAL MATRIX	156	236	228	586	11	1217	Junction Arm	A	B	C	D	E	F	TOTAL	Public Road N	0	66	139	108	258	21	580	1688 E	102	0	89	153	1	197	512	A5 S	234	23	0	19	139	470	881	Baskerville Road S	178	133	8	0	34	100	453	1689 W	887	4	335	17	13	446	1401	A5 N	20	200	376	92	297	1	1066	TOTAL	1121	426	937	385	709	1233	4813	Year	A	B	C	D	E	F	TOTAL	2023 Observed Flows	66	139	108	258	21	580	1401	WoD 2036 FINAL MATRIX	107	52	144	1	198	802	1376	WoDWS 2036 FINAL MATRIX	129	164	115	298	27	233	1376	WoD 2036 FINAL MATRIX	112	169	123	314	26	244	1376	
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	<p>the proposed infrastructure improvements (WoD</p> <p>WS) would not materially change the levels of future year traffic flows but would change the directions of arrival – by reassignment – such that more flow arrives from the M69 East. This result appears logical given that the proposed highway infrastructure would provide a bypass to the east of Hinkley and redirect some existing journeys on the A47 via M69 junction 2.</p> <p>The impact of the full development (WD) would be to increase 2036 forecast total inflows at M69 junction 1 by (5,946-5,684=) 262PCU/hour (+5%) in the AM peak and by (6,052- 5,915=) 137PCU/hour (+2%) in the PM peak</p> <p>The outputs from the Furness process at M69 junction 1 are reasonable.</p> <p>M69 junction 2 / B4669:</p> <p>TA Table 7-1 Ref: J20 Survey Jct Ref: 52 PRTM nodes: 30504, 30197, 37003, 30196</p> <table border="1"> <thead> <tr> <th colspan="2">AM Peak (PCU/Hour)</th> <th colspan="4">FUTURE YEAR FURNESSED TRAFFIC MATRICES</th> </tr> <tr> <th colspan="2">SURVEY FLOW</th> <th>WoD 2036 FINAL MATRIX</th> <th>WoDWS 2036 FINAL MATRIX</th> <th>WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>2023 Observed Flows</th> <th colspan="3">TOTAL</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>161</td> <td>160</td> <td>87</td> <td>80</td> </tr> <tr> <td>B</td> <td>143</td> <td>143</td> <td>407</td> <td>419</td> </tr> <tr> <td>C</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>D</td> <td>0</td> <td>0</td> <td>130</td> <td>292</td> </tr> <tr> <td>E</td> <td>0</td> <td>0</td> <td>118</td> <td>109</td> </tr> <tr> <td>TOTAL</td> <td>304</td> <td>304</td> <td>629</td> <td>723</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">PM Peak (PCU/Hour)</th> <th colspan="4">FUTURE YEAR FURNESSED TRAFFIC MATRICES</th> </tr> <tr> <th colspan="2">SURVEY FLOW</th> <th>WoD 2036 FINAL MATRIX</th> <th>WoDWS 2036 FINAL MATRIX</th> <th>WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>2023 Observed Flows</th> <th colspan="3">TOTAL</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>149</td> <td>148</td> <td>80</td> <td>73</td> </tr> <tr> <td>B</td> <td>153</td> <td>148</td> <td>361</td> <td>294</td> </tr> <tr> <td>C</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>D</td> <td>140</td> <td>119</td> <td>119</td> <td>110</td> </tr> <tr> <td>E</td> <td>0</td> <td>0</td> <td>47</td> <td>355</td> </tr> <tr> <td>TOTAL</td> <td>442</td> <td>415</td> <td>607</td> <td>832</td> </tr> </tbody> </table> <p>At M69 junction 2, the journeys between M69 Northeast (arm A) and M69 Southwest (arm C) are grade separated and therefore these trips bypass the</p>	AM Peak (PCU/Hour)		FUTURE YEAR FURNESSED TRAFFIC MATRICES				SURVEY FLOW		WoD 2036 FINAL MATRIX	WoDWS 2036 FINAL MATRIX	WD 2036 FINAL MATRIX	Junction Arm	2023 Observed Flows	TOTAL			A	161	160	87	80	B	143	143	407	419	C	0	0	0	0	D	0	0	130	292	E	0	0	118	109	TOTAL	304	304	629	723	PM Peak (PCU/Hour)		FUTURE YEAR FURNESSED TRAFFIC MATRICES				SURVEY FLOW		WoD 2036 FINAL MATRIX	WoDWS 2036 FINAL MATRIX	WD 2036 FINAL MATRIX	Junction Arm	2023 Observed Flows	TOTAL			A	149	148	80	73	B	153	148	361	294	C	0	0	0	0	D	140	119	119	110	E	0	0	47	355	TOTAL	442	415	607	832	
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B	153	148	361	294																																																																																										
C	0	0	0	0																																																																																										
D	140	119	119	110																																																																																										
E	0	0	47	355																																																																																										
TOTAL	442	415	607	832																																																																																										

No	National Highway	Applicant's Response
	<p>roundabout and are not documented in the above turn matrices. This means that the above forecast turning movement matrices cannot be used to assess the future operation efficiency of the M69 slip road merge areas – which is likely to be a requirement in the WoDWS and WD cases given that the forecast flow to arm C is 1,365 & 1,644PCU/hour in the AM peak, and 636 & 1,222 PCU/hour in the PM peak. These forecasts traffic flow will use the proposed new southbound merge slip road.</p> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 1,343PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 1,373PCU/hour (+2%). This AM traffic growth is attributed westbound to the route from B4669 Hinkley Rd East (arm B) to B4669 Hinkley Rd West (arm D).</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction were 1,206PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 1,150PCU/hour (-5%). Most of this PM traffic reduction is attributed to the SRN routes from M69 Northeast (-18%).</p> <p>The effect of the proposed infrastructure improvements (WoDWS) would change the levels of 2036 forecast traffic flows on the M69 junction 2 roundabout. The total inflows would increase from 1,373PCU/hour to 3,576PCU/hour in the AM peak hour. This is an increase of 2,203PCU/hour (+160%). In the PM peak hour, the total inflows would increase from 1,150PCU/hour to 3,263PCU/hour. This is an increase of 2,113PCU/hour (+184%). This result appears logical given that the proposed highway</p>	

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	<p>infrastructure would provide a bypass to the east of Hinkley and redirect some existing journeys on the A47 via M69 junction 2.</p> <p>The impact of the full development (WD) would be to increase 2036 forecast total inflows at M69 junction 2 roundabout by (4,807-1,374=) 3,433PCU/hour (+250%) in the AM peak and by (4,521-1,150=) 3,371PCU/hour (+290%) in the PM peak.</p> <p>The Furness process applied to the M69 junction 2 observed 2023 turning movement flows has had very little effect. Most of the turn movement changes at the M69 junction 2 roundabout have been derived from absolute changes in the PRTM strategic transport model outputs for the forecasting scenarios tested.</p> <p>M1 junction 21 / M69 Junction 3 (at Fosse Park, Leicester):</p> <table border="1" data-bbox="349 853 1153 1173"> <thead> <tr> <th colspan="2"></th> <th>TA Table 7-1 Ref:</th> <th>Survey Jct Ref:</th> <th>PRTM nodes:</th> </tr> <tr> <th colspan="2"></th> <th>J15</th> <th>None</th> <th>9463, 9495, 9447, 9439</th> </tr> </thead> <tbody> <tr> <td colspan="2">AM Peak (PCU/Hour)</td> <td>SURVEY FLOW</td> <td colspan="3">FUTURE YEAR FURNESSED TRAFFIC MATRICES</td> </tr> <tr> <td colspan="2">Junction Arm</td> <td>2023 Observed Flows</td> <td>WoD 2036 FINAL MATRIX</td> <td>WoD05 2036 FINAL MATRIX</td> <td>WD 2036 FINAL MATRIX</td> </tr> <tr> <td>M1 N</td> <td>A</td> <td>6</td> <td>6</td> <td>6</td> <td>6</td> </tr> <tr> <td>A5460 E</td> <td>B</td> <td>1728</td> <td>1728</td> <td>1869</td> <td>1869</td> </tr> <tr> <td>M69 W</td> <td>C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>M69 E</td> <td>D</td> <td>1523</td> <td>1523</td> <td>1470</td> <td>1470</td> </tr> <tr> <td>TOTAL</td> <td>TOTAL</td> <td>3294</td> <td>3294</td> <td>3344</td> <td>3344</td> </tr> <tr> <td colspan="2">PM Peak (PCU/Hour)</td> <td>SURVEY FLOW</td> <td colspan="3">FUTURE YEAR FURNESSED TRAFFIC MATRICES</td> </tr> <tr> <td colspan="2">Junction Arm</td> <td>2023 Observed Flows</td> <td>WoD 2036 FINAL MATRIX</td> <td>WoD05 2036 FINAL MATRIX</td> <td>WD 2036 FINAL MATRIX</td> </tr> <tr> <td>M1 N</td> <td>A</td> <td>23</td> <td>23</td> <td>23</td> <td>23</td> </tr> <tr> <td>A5460 E</td> <td>B</td> <td>1499</td> <td>1499</td> <td>1706</td> <td>1706</td> </tr> <tr> <td>M69 W</td> <td>C</td> <td>452</td> <td>452</td> <td>466</td> <td>466</td> </tr> <tr> <td>M69 E</td> <td>D</td> <td>1170</td> <td>1170</td> <td>1168</td> <td>1168</td> </tr> <tr> <td>TOTAL</td> <td>TOTAL</td> <td>3452</td> <td>3452</td> <td>3463</td> <td>3463</td> </tr> </tbody> </table> <p>In the AM peak hour, the modelled total inflows arriving at the junction were 8,905PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 9,752PCU/hour (+10%). This AM traffic growth is attributed between three approach roads (M1 North, M69 West and A5460 East).</p>			TA Table 7-1 Ref:	Survey Jct Ref:	PRTM nodes:			J15	None	9463, 9495, 9447, 9439	AM Peak (PCU/Hour)		SURVEY FLOW	FUTURE YEAR FURNESSED TRAFFIC MATRICES			Junction Arm		2023 Observed Flows	WoD 2036 FINAL MATRIX	WoD05 2036 FINAL MATRIX	WD 2036 FINAL MATRIX	M1 N	A	6	6	6	6	A5460 E	B	1728	1728	1869	1869	M69 W	C	2	2	2	2	M69 E	D	1523	1523	1470	1470	TOTAL	TOTAL	3294	3294	3344	3344	PM Peak (PCU/Hour)		SURVEY FLOW	FUTURE YEAR FURNESSED TRAFFIC MATRICES			Junction Arm		2023 Observed Flows	WoD 2036 FINAL MATRIX	WoD05 2036 FINAL MATRIX	WD 2036 FINAL MATRIX	M1 N	A	23	23	23	23	A5460 E	B	1499	1499	1706	1706	M69 W	C	452	452	466	466	M69 E	D	1170	1170	1168	1168	TOTAL	TOTAL	3452	3452	3463	3463	
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	<p>No junction turn matrices forecasts were produced in the “Furnessing Spreadsheet” for the M1 junction 20 at Lutterworth.</p> <p>Any additional trips generated for the full development (WD) forecast scenario at this M1 junction 20 roundabout would likely also pass through the A5 ‘Cross in Hand’ junction. The magnitude of changes at the A5 junction should provide an indication of the changes forecast at M1 junction 20.</p> <p><u>A5 / A444 ‘Redgate’ elongated roundabout</u></p> <table border="1" data-bbox="414 643 1294 715"> <tr> <td data-bbox="414 643 683 678"><i>TA Table 7-1 Ref:</i></td> <td data-bbox="683 643 911 678"><i>Survey Jct Ref:</i></td> </tr> <tr> <td data-bbox="414 678 683 715">J32 & J33</td> <td data-bbox="683 678 911 715">None</td> </tr> </table> <p>No junction turn matrices forecasts were produced in the “Furnessing Spreadsheet” for the A5 / A444 ‘Redgate’ elongated roundabout.</p> <p>Any additional trips generated for the full development (WD) forecast scenario at this A5 / A444 ‘Redgate’ elongated roundabout would likely also pass through the A5 ‘Long Shoot’ junction. The magnitude of changes at this easterly A5 junction should provide an indication of the changes forecast at this A5 / A444 ‘Redgate’ junction.</p>	<i>TA Table 7-1 Ref:</i>	<i>Survey Jct Ref:</i>	J32 & J33	None	
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	<p style="text-align: center;">A5 / A47 'The Long Shoot' signal-controlled junction</p> <p style="text-align: center;">TA Table 7-1 Ref: <u>J4</u> Survey Jct Ref: <u>26</u> PRTM node: <u>40491</u></p> <p>AM Peak (PCU/Hour)</p> <p>SURVEY FLOW</p> <table border="1"> <thead> <tr> <th colspan="5">2023 Observed Flows</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>665</td> <td>737</td> <td>1402</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>695</td> <td>0</td> <td>94</td> <td>789</td> </tr> <tr> <td>C Watling Street W</td> <td>1497</td> <td>97</td> <td>0</td> <td>1594</td> </tr> <tr> <td>TOTAL</td> <td>1364</td> <td>762</td> <td>831</td> <td>2897</td> </tr> </tbody> </table> <p>FUTURE YEAR FURNISHED TRAFFIC MATRICES</p> <table border="1"> <thead> <tr> <th colspan="5">WoD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>702</td> <td>760</td> <td>1462</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>867</td> <td>0</td> <td>85</td> <td>952</td> </tr> <tr> <td>C Watling Street W</td> <td>815</td> <td>48</td> <td>0</td> <td>863</td> </tr> <tr> <td>TOTAL</td> <td>1482</td> <td>747</td> <td>845</td> <td>3074</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="5">WoDWS 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>489</td> <td>766</td> <td>1455</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>444</td> <td>0</td> <td>84</td> <td>528</td> </tr> <tr> <td>C Watling Street W</td> <td>893</td> <td>43</td> <td>0</td> <td>936</td> </tr> <tr> <td>TOTAL</td> <td>1407</td> <td>732</td> <td>850</td> <td>3071</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="5">WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>488</td> <td>776</td> <td>1464</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>467</td> <td>0</td> <td>87</td> <td>554</td> </tr> <tr> <td>C Watling Street W</td> <td>892</td> <td>42</td> <td>0</td> <td>934</td> </tr> <tr> <td>TOTAL</td> <td>1459</td> <td>728</td> <td>863</td> <td>3090</td> </tr> </tbody> </table> <p>PM Peak (PCU/Hour)</p> <p>SURVEY FLOW</p> <table border="1"> <thead> <tr> <th colspan="5">2023 Observed Flows</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>736</td> <td>752</td> <td>1488</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>428</td> <td>0</td> <td>78</td> <td>506</td> </tr> <tr> <td>C Watling Street W</td> <td>1441</td> <td>53</td> <td>0</td> <td>1497</td> </tr> <tr> <td>TOTAL</td> <td>1272</td> <td>789</td> <td>830</td> <td>2891</td> </tr> </tbody> </table> <p>FUTURE YEAR FURNISHED TRAFFIC MATRICES</p> <table border="1"> <thead> <tr> <th colspan="5">WoD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>866</td> <td>792</td> <td>1658</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>439</td> <td>0</td> <td>76</td> <td>515</td> </tr> <tr> <td>C Watling Street W</td> <td>1481</td> <td>60</td> <td>0</td> <td>1541</td> </tr> <tr> <td>TOTAL</td> <td>1921</td> <td>926</td> <td>868</td> <td>3115</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="5">WoDWS 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>877</td> <td>796</td> <td>1673</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>453</td> <td>0</td> <td>77</td> <td>530</td> </tr> <tr> <td>C Watling Street W</td> <td>1485</td> <td>41</td> <td>0</td> <td>1526</td> </tr> <tr> <td>TOTAL</td> <td>1938</td> <td>936</td> <td>873</td> <td>3147</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="5">WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th>A</th> <th>B</th> <th>C</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>A Watling Street E</td> <td>0</td> <td>878</td> <td>817</td> <td>1695</td> </tr> <tr> <td>B A47 The Long Shoot</td> <td>450</td> <td>0</td> <td>78</td> <td>528</td> </tr> <tr> <td>C Watling Street W</td> <td>1502</td> <td>59</td> <td>0</td> <td>1561</td> </tr> <tr> <td>TOTAL</td> <td>1932</td> <td>937</td> <td>892</td> <td>3161</td> </tr> </tbody> </table> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 2,897PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 3,074PCU/hour (+6%). All of this AM traffic growth is attributed to the SRN route, A5 Watling Street East (arm A) and A5 Watling Street West (arm C). The two-way AM peak flows on A47 'The Long Shoot' would remain the same in 2036 as in 2023.</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction were 2,891PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 3,101PCU/hour (+7%). This PM traffic growth is attributed approximately equally to all three roads connected to the junction.</p> <p>The effect of the proposed infrastructure improvements (WoDWS) would not materially change the levels of 2036 forecast year traffic flows at the A5 'Long Shoot' traffic signal controlled junction (0% in the AM peak hour and +1.6% in the PM peak hour).</p>	2023 Observed Flows					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	665	737	1402	B A47 The Long Shoot	695	0	94	789	C Watling Street W	1497	97	0	1594	TOTAL	1364	762	831	2897	WoD 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	702	760	1462	B A47 The Long Shoot	867	0	85	952	C Watling Street W	815	48	0	863	TOTAL	1482	747	845	3074	WoDWS 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	489	766	1455	B A47 The Long Shoot	444	0	84	528	C Watling Street W	893	43	0	936	TOTAL	1407	732	850	3071	WD 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	488	776	1464	B A47 The Long Shoot	467	0	87	554	C Watling Street W	892	42	0	934	TOTAL	1459	728	863	3090	2023 Observed Flows					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	736	752	1488	B A47 The Long Shoot	428	0	78	506	C Watling Street W	1441	53	0	1497	TOTAL	1272	789	830	2891	WoD 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	866	792	1658	B A47 The Long Shoot	439	0	76	515	C Watling Street W	1481	60	0	1541	TOTAL	1921	926	868	3115	WoDWS 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	877	796	1673	B A47 The Long Shoot	453	0	77	530	C Watling Street W	1485	41	0	1526	TOTAL	1938	936	873	3147	WD 2036 FINAL MATRIX					Junction Arm	A	B	C	TOTAL	A Watling Street E	0	878	817	1695	B A47 The Long Shoot	450	0	78	528	C Watling Street W	1502	59	0	1561	TOTAL	1932	937	892	3161	
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Junction Arm	A	B	C	TOTAL																																																																																																																																																																																																																																														
A Watling Street E	0	736	752	1488																																																																																																																																																																																																																																														
B A47 The Long Shoot	428	0	78	506																																																																																																																																																																																																																																														
C Watling Street W	1441	53	0	1497																																																																																																																																																																																																																																														
TOTAL	1272	789	830	2891																																																																																																																																																																																																																																														
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Junction Arm	A	B	C	TOTAL																																																																																																																																																																																																																																														
A Watling Street E	0	866	792	1658																																																																																																																																																																																																																																														
B A47 The Long Shoot	439	0	76	515																																																																																																																																																																																																																																														
C Watling Street W	1481	60	0	1541																																																																																																																																																																																																																																														
TOTAL	1921	926	868	3115																																																																																																																																																																																																																																														
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Junction Arm	A	B	C	TOTAL																																																																																																																																																																																																																																														
A Watling Street E	0	877	796	1673																																																																																																																																																																																																																																														
B A47 The Long Shoot	453	0	77	530																																																																																																																																																																																																																																														
C Watling Street W	1485	41	0	1526																																																																																																																																																																																																																																														
TOTAL	1938	936	873	3147																																																																																																																																																																																																																																														
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B A47 The Long Shoot	450	0	78	528																																																																																																																																																																																																																																														
C Watling Street W	1502	59	0	1561																																																																																																																																																																																																																																														
TOTAL	1932	937	892	3161																																																																																																																																																																																																																																														

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	<p>The impact of the full development (WD) forecast scenario does not change the level of the 2036 forecast peak hour flows at the A5 'Long Shoot' junction. This result implies that none of the trips generated by the proposed development would be to or from the local area around Nuneaton. This finding derives from the target flows generated by the PRTM strategic model's forecasting scenarios rather than from the Furness process.</p> <p style="text-align: center;">A5 / A47 / B4666 'Dodwells' signalled roundabout</p> <p style="text-align: center;"> TA Table 7-1 Ref: J14 Survey Jct Ref: 25 PRTM nodes: 76738, 76740, 76743, 76734 </p> <div style="display: flex; justify-content: space-between;"> <div style="width: 24%;"> <p>AM Peak (PCU/Hour)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">SURVEY FLOW</th> <th colspan="4">FUTURE YEAR FURNESSED TRAFFIC MATRICES</th> </tr> <tr> <th colspan="2">2023 Observed Flows</th> <th colspan="2">WoD 2036 FINAL MATRIX</th> <th colspan="2">WoOWS 2036 FINAL MATRIX</th> <th colspan="2">WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>TOTAL</th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="4">J14 - A5 / B4666 / A47</td> <td>A - Dodwells Road</td> <td>0</td> <td>75</td> <td>184</td> <td>452</td> <td>711</td> <td>A</td> <td>0</td> <td>102</td> <td>269</td> <td>477</td> <td>848</td> </tr> <tr> <td>B - Coventry Road</td> <td>39</td> <td>0</td> <td>53</td> <td>417</td> <td>509</td> <td>B</td> <td>84</td> <td>0</td> <td>75</td> <td>458</td> <td>613</td> </tr> <tr> <td>C - A5 Watling St SE</td> <td>238</td> <td>57</td> <td>2</td> <td>566</td> <td>863</td> <td>C</td> <td>311</td> <td>74</td> <td>2</td> <td>563</td> <td>954</td> </tr> <tr> <td>D - A5 Watling St NW</td> <td>414</td> <td>346</td> <td>596</td> <td>0</td> <td>1356</td> <td>D</td> <td>431</td> <td>372</td> <td>674</td> <td>0</td> <td>1477</td> </tr> <tr> <td></td> <td>TOTAL</td> <td>711</td> <td>478</td> <td>833</td> <td>1433</td> <td>3459</td> <td>TOTAL</td> <td>826</td> <td>380</td> <td>1020</td> <td>1494</td> <td>3892</td> </tr> </tbody> </table> </div> <div style="width: 24%;"> <p>PM Peak (PCU/Hour)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">SURVEY FLOW</th> <th colspan="4">FUTURE YEAR FURNESSED TRAFFIC MATRICES</th> </tr> <tr> <th colspan="2">2023 Observed Flows</th> <th colspan="2">WoD 2036 FINAL MATRIX</th> <th colspan="2">WoOWS 2036 FINAL MATRIX</th> <th colspan="2">WD 2036 FINAL MATRIX</th> </tr> <tr> <th>Junction Arm</th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>TOTAL</th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="4">J14 - A5 / B4666 / A47</td> <td>A - Dodwells Road</td> <td>0</td> <td>106</td> <td>206</td> <td>471</td> <td>783</td> <td>A</td> <td>0</td> <td>121</td> <td>218</td> <td>392</td> <td>731</td> </tr> <tr> <td>B - Coventry Road</td> <td>88</td> <td>0</td> <td>56</td> <td>367</td> <td>511</td> <td>B</td> <td>94</td> <td>0</td> <td>69</td> <td>380</td> <td>543</td> </tr> <tr> <td>C - A5 Watling St SE</td> <td>198</td> <td>42</td> <td>2</td> <td>655</td> <td>897</td> <td>C</td> <td>277</td> <td>70</td> <td>3</td> <td>873</td> <td>1223</td> </tr> <tr> <td>D - A5 Watling St NW</td> <td>400</td> <td>349</td> <td>517</td> <td>0</td> <td>1266</td> <td>D</td> <td>347</td> <td>498</td> <td>356</td> <td>0</td> <td>1301</td> </tr> <tr> <td></td> <td>TOTAL</td> <td>686</td> <td>517</td> <td>781</td> <td>1493</td> <td>3477</td> <td>TOTAL</td> <td>718</td> <td>619</td> <td>846</td> <td>1643</td> <td>3628</td> </tr> </tbody> </table> </div> </div> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 3,459PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 3,892PCU/hour (+13%). All of this AM traffic growth is attributed to the SRN route, A5 Watling Street Southeast (arm C) and A5 Watling Street Northwest (arm D). The two-way AM peak flows on the two minor roads (arm A and arm B) would remain the same in 2036 as in 2023.</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction</p>	SURVEY FLOW		FUTURE YEAR FURNESSED TRAFFIC MATRICES				2023 Observed Flows		WoD 2036 FINAL MATRIX		WoOWS 2036 FINAL MATRIX		WD 2036 FINAL MATRIX		Junction Arm		A	B	C	D	TOTAL		J14 - A5 / B4666 / A47	A - Dodwells Road	0	75	184	452	711	A	0	102	269	477	848	B - Coventry Road	39	0	53	417	509	B	84	0	75	458	613	C - A5 Watling St SE	238	57	2	566	863	C	311	74	2	563	954	D - A5 Watling St NW	414	346	596	0	1356	D	431	372	674	0	1477		TOTAL	711	478	833	1433	3459	TOTAL	826	380	1020	1494	3892	SURVEY FLOW		FUTURE YEAR FURNESSED TRAFFIC MATRICES				2023 Observed Flows		WoD 2036 FINAL MATRIX		WoOWS 2036 FINAL MATRIX		WD 2036 FINAL MATRIX		Junction Arm		A	B	C	D	TOTAL		J14 - A5 / B4666 / A47	A - Dodwells Road	0	106	206	471	783	A	0	121	218	392	731	B - Coventry Road	88	0	56	367	511	B	94	0	69	380	543	C - A5 Watling St SE	198	42	2	655	897	C	277	70	3	873	1223	D - A5 Watling St NW	400	349	517	0	1266	D	347	498	356	0	1301		TOTAL	686	517	781	1493	3477	TOTAL	718	619	846	1643	3628	
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	<p>were 3,447PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 3,828PCU/hour (+10%). This PM traffic growth is attributed to the SRN route, A5 Watling Street Southeast (arm C) and A5 Watling Street Northwest (arm D). The two-way PM peak flows on the two minor roads (arm A and arm B) would remain the same in 2036 as in 2023.</p> <p>The effect of the proposed infrastructure improvements (WoDWS) would not materially change the levels of 2036 forecast year traffic inflows at the A5 'Dodwells' signal led roundabout (-4% in the AM peak hour and -2% in the PM peak hour). This is logical because the proposed highway infrastructure acts as an eastern bypass of Hinkley and would act to divert some longer-distance journeys away from A5 'Dodwells' junction and onto the M69.</p> <p>The impact of the full development (WD) forecast scenario does not change the level of the 2036 forecast peak hour inflows at the A5 'Dodwells' junction. This finding derives from the target flows generated by the PRTM strategic model's forecasting scenarios rather than from the Furness process.</p>	

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	<p style="text-align: center;">A5 / A4303 / B4027 'Cross In Hand' roundabout (at Magna Park)</p> <p style="text-align: center;">TA Table 7-1 Ref: <u>J27</u> Survey Jct Ref: <u>48</u> PRTM node: <u>20628</u></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p>AM Peak (PCU/Hour)</p> <p>SURVEY FLOW</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th colspan="2">Junction Arm</th> <th colspan="5">2023 Observed Flows</th> </tr> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td rowspan="5">A5 / A4303 / B4027 'Cross In Hand'</td> <td>A</td> <td>45</td> <td>0</td> <td>437</td> <td>353</td> <td>48</td> <td>4 992</td> </tr> <tr> <td>B</td> <td>332</td> <td>0</td> <td>234</td> <td>223</td> <td>74</td> <td>863</td> </tr> <tr> <td>C</td> <td>214</td> <td>334</td> <td>2</td> <td>13</td> <td>42</td> <td>527</td> </tr> <tr> <td>D</td> <td>40</td> <td>154</td> <td>19</td> <td>0</td> <td>1</td> <td>214</td> </tr> <tr> <td>E</td> <td>20</td> <td>149</td> <td>80</td> <td>6</td> <td>0</td> <td>255</td> </tr> <tr> <td colspan="2">TOTAL</td> <td>608</td> <td>374</td> <td>830</td> <td>290</td> <td>143</td> <td>2845</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WOD 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>373</td> <td>330</td> <td>43</td> <td>4</td> <td>950</td> </tr> <tr> <td>0</td> <td>422</td> <td>0</td> <td>217</td> <td>311</td> <td>1132</td> </tr> <tr> <td>0</td> <td>285</td> <td>314</td> <td>2</td> <td>13</td> <td>70</td> </tr> <tr> <td>0</td> <td>122</td> <td>455</td> <td>29</td> <td>0</td> <td>608</td> </tr> <tr> <td>0</td> <td>37</td> <td>272</td> <td>72</td> <td>19</td> <td>400</td> </tr> <tr> <td>TOTAL</td> <td>1047</td> <td>1616</td> <td>650</td> <td>386</td> <td>388</td> <td>3909</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WODWS 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>581</td> <td>330</td> <td>41</td> <td>4</td> <td>956</td> </tr> <tr> <td>0</td> <td>433</td> <td>0</td> <td>221</td> <td>305</td> <td>1123</td> </tr> <tr> <td>0</td> <td>285</td> <td>300</td> <td>2</td> <td>12</td> <td>43</td> </tr> <tr> <td>0</td> <td>114</td> <td>453</td> <td>27</td> <td>0</td> <td>598</td> </tr> <tr> <td>0</td> <td>34</td> <td>247</td> <td>49</td> <td>19</td> <td>309</td> </tr> <tr> <td>TOTAL</td> <td>1047</td> <td>1421</td> <td>649</td> <td>377</td> <td>388</td> <td>3896</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WD 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>322</td> <td>353</td> <td>52</td> <td>6</td> <td>913</td> </tr> <tr> <td>0</td> <td>441</td> <td>0</td> <td>239</td> <td>310</td> <td>1064</td> </tr> <tr> <td>0</td> <td>334</td> <td>324</td> <td>2</td> <td>12</td> <td>42</td> </tr> <tr> <td>0</td> <td>120</td> <td>444</td> <td>31</td> <td>0</td> <td>2</td> </tr> <tr> <td>0</td> <td>42</td> <td>322</td> <td>85</td> <td>20</td> <td>449</td> </tr> <tr> <td>TOTAL</td> <td>1139</td> <td>1632</td> <td>710</td> <td>374</td> <td>176</td> <td>4051</td> </tr> </tbody> </table> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;"> <p>PM Peak (PCU/Hour)</p> <p>SURVEY FLOW</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th colspan="2">Junction Arm</th> <th colspan="5">2023 Observed Flows</th> </tr> <tr> <th></th> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td rowspan="5">A5 / A4303 / B4027 'Cross In Hand'</td> <td>A</td> <td>45</td> <td>0</td> <td>342</td> <td>237</td> <td>24</td> <td>4 629</td> </tr> <tr> <td>B</td> <td>405</td> <td>0</td> <td>234</td> <td>138</td> <td>130</td> <td>1899</td> </tr> <tr> <td>C</td> <td>1418</td> <td>203</td> <td>0</td> <td>17</td> <td>108</td> <td>746</td> </tr> <tr> <td>D</td> <td>74</td> <td>277</td> <td>3</td> <td>0</td> <td>7</td> <td>361</td> </tr> <tr> <td>E</td> <td>5</td> <td>79</td> <td>43</td> <td>1</td> <td>0</td> <td>128</td> </tr> <tr> <td colspan="2">TOTAL</td> <td>1921</td> <td>821</td> <td>619</td> <td>172</td> <td>249</td> <td>2763</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WOD 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>539</td> <td>372</td> <td>102</td> <td>7</td> <td>1020</td> </tr> <tr> <td>0</td> <td>423</td> <td>0</td> <td>209</td> <td>302</td> <td>247</td> </tr> <tr> <td>0</td> <td>353</td> <td>214</td> <td>0</td> <td>24</td> <td>109</td> </tr> <tr> <td>0</td> <td>87</td> <td>370</td> <td>2</td> <td>0</td> <td>10</td> </tr> <tr> <td>0</td> <td>6</td> <td>107</td> <td>36</td> <td>2</td> <td>151</td> </tr> <tr> <td>TOTAL</td> <td>1049</td> <td>1230</td> <td>619</td> <td>310</td> <td>373</td> <td>3801</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WODWS 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>571</td> <td>347</td> <td>104</td> <td>4</td> <td>1026</td> </tr> <tr> <td>0</td> <td>426</td> <td>0</td> <td>218</td> <td>348</td> <td>241</td> </tr> <tr> <td>0</td> <td>354</td> <td>229</td> <td>0</td> <td>23</td> <td>104</td> </tr> <tr> <td>0</td> <td>72</td> <td>334</td> <td>2</td> <td>0</td> <td>12</td> </tr> <tr> <td>0</td> <td>6</td> <td>101</td> <td>32</td> <td>2</td> <td>141</td> </tr> <tr> <td>TOTAL</td> <td>1049</td> <td>1237</td> <td>619</td> <td>487</td> <td>345</td> <td>3770</td> </tr> </tbody> </table> </div> <div style="width: 20%;"> <p>WD 2036 FINAL MATRIX</p> <table border="1" style="font-size: 8px;"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>578</td> <td>403</td> <td>123</td> <td>7</td> <td>1111</td> </tr> <tr> <td>0</td> <td>426</td> <td>0</td> <td>193</td> <td>379</td> <td>340</td> </tr> <tr> <td>0</td> <td>409</td> <td>213</td> <td>0</td> <td>25</td> <td>110</td> </tr> <tr> <td>0</td> <td>88</td> <td>349</td> <td>2</td> <td>0</td> <td>12</td> </tr> <tr> <td>0</td> <td>6</td> <td>101</td> <td>34</td> <td>3</td> <td>0</td> </tr> <tr> <td>TOTAL</td> <td>1129</td> <td>1241</td> <td>630</td> <td>530</td> <td>369</td> <td>3899</td> </tr> </tbody> </table> </div> </div> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 2,845PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 3,909PCU/hour (+38%). This AM traffic growth is attributed predominantly to the A4303 East (arm B), which provides access to the nearby Magna Park regional distribution warehouses.</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction were 2,763PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 3,801PCU/hour (+38%). This PM traffic growth is attributed predominantly to the A4303 East (arm B), which provides access to the nearby Magna Park regional distribution warehouses.</p> <p>The effect of the proposed infrastructure improvements (WoDWS) would not materially change the levels of 2036 forecast year traffic inflows at the A5 'Cross In Hand' roundabout (-0% in the AM peak hour and -1% in the PM</p>	Junction Arm		2023 Observed Flows							A	B	C	D	E	TOTAL	A5 / A4303 / B4027 'Cross In Hand'	A	45	0	437	353	48	4 992	B	332	0	234	223	74	863	C	214	334	2	13	42	527	D	40	154	19	0	1	214	E	20	149	80	6	0	255	TOTAL		608	374	830	290	143	2845	A	B	C	D	E	TOTAL	0	373	330	43	4	950	0	422	0	217	311	1132	0	285	314	2	13	70	0	122	455	29	0	608	0	37	272	72	19	400	TOTAL	1047	1616	650	386	388	3909	A	B	C	D	E	TOTAL	0	581	330	41	4	956	0	433	0	221	305	1123	0	285	300	2	12	43	0	114	453	27	0	598	0	34	247	49	19	309	TOTAL	1047	1421	649	377	388	3896	A	B	C	D	E	TOTAL	0	322	353	52	6	913	0	441	0	239	310	1064	0	334	324	2	12	42	0	120	444	31	0	2	0	42	322	85	20	449	TOTAL	1139	1632	710	374	176	4051	Junction Arm		2023 Observed Flows							A	B	C	D	E	TOTAL	A5 / A4303 / B4027 'Cross In Hand'	A	45	0	342	237	24	4 629	B	405	0	234	138	130	1899	C	1418	203	0	17	108	746	D	74	277	3	0	7	361	E	5	79	43	1	0	128	TOTAL		1921	821	619	172	249	2763	A	B	C	D	E	TOTAL	0	539	372	102	7	1020	0	423	0	209	302	247	0	353	214	0	24	109	0	87	370	2	0	10	0	6	107	36	2	151	TOTAL	1049	1230	619	310	373	3801	A	B	C	D	E	TOTAL	0	571	347	104	4	1026	0	426	0	218	348	241	0	354	229	0	23	104	0	72	334	2	0	12	0	6	101	32	2	141	TOTAL	1049	1237	619	487	345	3770	A	B	C	D	E	TOTAL	0	578	403	123	7	1111	0	426	0	193	379	340	0	409	213	0	25	110	0	88	349	2	0	12	0	6	101	34	3	0	TOTAL	1129	1241	630	530	369	3899	
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No	National Highway	Applicant's Response																																																																																																																																
	<p style="text-align: center;">A5 / A426 / Gibbet Lane, 'Gibbet' roundabout</p> <p style="text-align: center;">TA Table 7-1 Ref: <u>J26</u> Survey Jct Ref: <u>47</u> PRTM node: <u>20780</u></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 24%;"> <p>AM Peak (PCU/Hour)</p> <p style="text-align: center;">SURVEY FLOW</p> <p style="text-align: center;">Junction Arm</p> <table border="1"> <thead> <tr> <th colspan="2">2023 Observed Flows</th> <th colspan="2">WoD 2036 FINAL MATRIX</th> <th colspan="2">WoDWS 2036 FINAL MATRIX</th> <th colspan="2">WD 2036 FINAL MATRIX</th> </tr> <tr> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>Watling Street S</td> <td>842</td> <td>1042</td> <td>1042</td> <td>1042</td> <td>1042</td> <td>1042</td> <td>1042</td> </tr> <tr> <td>Rugby Road</td> <td>713</td> <td>884</td> <td>884</td> <td>884</td> <td>884</td> <td>884</td> <td>884</td> </tr> <tr> <td>Gibbet Lane</td> <td>106</td> <td>106</td> <td>106</td> <td>106</td> <td>106</td> <td>106</td> <td>106</td> </tr> <tr> <td>Watling Street S</td> <td>777</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> </tr> <tr> <td>Rugby Road W</td> <td>523</td> <td>689</td> <td>689</td> <td>689</td> <td>689</td> <td>689</td> <td>689</td> </tr> <tr> <td>TOTAL</td> <td>2961</td> <td>3258</td> <td>3258</td> <td>3258</td> <td>3258</td> <td>3258</td> <td>3258</td> </tr> </tbody> </table> </div> <div style="width: 24%;"> <p>PM Peak (PCU/Hour)</p> <p style="text-align: center;">SURVEY FLOW</p> <p style="text-align: center;">Junction Arm</p> <table border="1"> <thead> <tr> <th colspan="2">2023 Observed Flows</th> <th colspan="2">WoD 2036 FINAL MATRIX</th> <th colspan="2">WoDWS 2036 FINAL MATRIX</th> <th colspan="2">WD 2036 FINAL MATRIX</th> </tr> <tr> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> <th></th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>Watling Street S</td> <td>422</td> <td>518</td> <td>518</td> <td>518</td> <td>518</td> <td>518</td> <td>518</td> </tr> <tr> <td>Rugby Road</td> <td>693</td> <td>864</td> <td>864</td> <td>864</td> <td>864</td> <td>864</td> <td>864</td> </tr> <tr> <td>Gibbet Lane</td> <td>98</td> <td>98</td> <td>98</td> <td>98</td> <td>98</td> <td>98</td> <td>98</td> </tr> <tr> <td>Watling Street S</td> <td>721</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> <td>1088</td> </tr> <tr> <td>Rugby Road W</td> <td>887</td> <td>1154</td> <td>1154</td> <td>1154</td> <td>1154</td> <td>1154</td> <td>1154</td> </tr> <tr> <td>TOTAL</td> <td>2958</td> <td>3541</td> <td>3541</td> <td>3541</td> <td>3541</td> <td>3541</td> <td>3541</td> </tr> </tbody> </table> </div> </div> <p>In the AM peak hour, the total 2023 flows observed to arrive at the junction were 2,961PCU/hour in the 2023 AM peak. Without Development (WoD) trips, in 2036 the total AM peak flows arriving at the junction would be 3,258PCU/hour (+10%). This AM traffic growth is attributed predominantly to the traffic approaching from A5 Watling Street South arm D (+42%) and turning to A426 Rugby Road West arm E (+27%). This bias in directional traffic growth derives from the target flows obtained from the PRTM traffic forecasting scenarios.</p> <p>In the PM peak hour, the total 2023 flows observed to arrive at the junction were 2,958PCU/hour in the 2023 PM peak. Without Development (WoD) trips, in 2036 the total PM peak flows arriving at the junction would be 3,541PCU/hour (+20%). This PM traffic growth is attributed predominantly to the traffic approaching from A5 Watling Street South arm D (+51%) and turning to A426 Rugby Road West arm E (+35%). This bias in directional traffic growth derives from the target flows obtained from the PRTM traffic forecasting scenarios.</p>	2023 Observed Flows		WoD 2036 FINAL MATRIX		WoDWS 2036 FINAL MATRIX		WD 2036 FINAL MATRIX			TOTAL		TOTAL		TOTAL		TOTAL	Watling Street S	842	1042	1042	1042	1042	1042	1042	Rugby Road	713	884	884	884	884	884	884	Gibbet Lane	106	106	106	106	106	106	106	Watling Street S	777	1088	1088	1088	1088	1088	1088	Rugby Road W	523	689	689	689	689	689	689	TOTAL	2961	3258	3258	3258	3258	3258	3258	2023 Observed Flows		WoD 2036 FINAL MATRIX		WoDWS 2036 FINAL MATRIX		WD 2036 FINAL MATRIX			TOTAL		TOTAL		TOTAL		TOTAL	Watling Street S	422	518	518	518	518	518	518	Rugby Road	693	864	864	864	864	864	864	Gibbet Lane	98	98	98	98	98	98	98	Watling Street S	721	1088	1088	1088	1088	1088	1088	Rugby Road W	887	1154	1154	1154	1154	1154	1154	TOTAL	2958	3541	3541	3541	3541	3541	3541	
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	<p>The effect of the proposed infrastructure improvements (WoDWS) would not materially change the levels of 2036 forecast year traffic inflows at the A5 'Gibbet' roundabout (-0% in the AM peak hour and -1% in the PM peak hour). This is logical because the proposed highway infrastructure acts as an eastern bypass of Hinkley and would not change existing journeys passing through the A5 'Gibbet' roundabout.</p> <p>The impact of the full development (WD) forecast scenario does not materially increase the level of the 2036 forecast peak hour inflows at the A5 'Gibbet' roundabout (+2% AM peak hour inflows; +2% PM peak hour inflows).</p> <p>Because of the bias observed in the directional flows, the operational performance of the A5 'Gibbet' roundabout should be tested with a proportion of the left turn flows, from arm D (A5 Watling Street South) to arm E (A426 Southwest), transferred to an alternative exit arm.</p>	
4. Summary Of Comments		
1	The Applicant has not responded to National Highway's comments as set out in the DCO document REP1-182.	See Comments at top of the section- the summary here replicates points made.
2	No junction turn matrices forecasts were produced in the "Furnessing Spreadsheet" at the M1 junction 20 two-bridge roundabout nor at the A5 'Redgate' elongated roundabout.	
3	The "Furness spreadsheet" does not document the grade separated flows at M69 junction 1 and at M69 junction 2. This means that the turning movement matrices cannot be used to assess the future operation efficiency	

National Highways

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	of the M69 slip road merge areas.	
4	The Furnessing process could underestimate the magnitude of the HGV turn movements between A5 North and A4303 East at the A5 'Cross In Hand' roundabout if new HGV trips are induced between the Applicant's Hinkley NRFI site and the existing Magna Park regional distribution center.	
5	Directional traffic growth biases in the target flows were noted at the A5 'Gibbet' roundabout. The operational performance of this roundabout should be assessed with alternative turning movement proportions applied to check that these biases are not material to the operational performance of the roundabout.	

No	ExQ Ref	Matter	Natural England Response	Applicant's Response
1	1.2.9.	<p>Burbage Common and Woods SSSI – recreational disturbance</p> <p>In the RR from NE [RR-0974] it is indicated that the proposed Access Management Plan to mitigate the effects of additional recreational disturbance occasioned by the Proposed Development would include “Measures ... to restrict access to the more sensitive areas of the SSSI”.</p> <p>a) Could the Applicant and NE set out the nature of these restrictions, including extent, timings (if part year), etc., as these do not appear to be mentioned in the Woodland Access Management Plan (Appendix 12.4 to the ES [APP-200]), to allow IPs to comment on them and the ExA and SoS to judge whether they are justified. If they are outside the proposed Order limits, how are they to be secured?</p> <p>b) Could the Applicant and NE set out respective positions should the ExA or SoS consider that these measures are not justified in the public interest.</p>	<p>Natural England have engaged with the applicant In relation to this question.</p> <p>Natural England have provided the Applicant with a series of measures we feel would be appropriate in mitigating the possible recreational pressure increase on the SSSI. To avoid repetition, we have asked that the applicant include these within their response to this set of questions.</p> <p>It should be noted that no physical restriction of access to the SSSI is considered necessary. Apologies, the wording of our RR's may have been misleading in this regard. In the absence of need for any physical restriction, Natural England have not provided our position should the ExA or SoS consider the mitigation measures not justified in the public interest. Please don't hesitate to get in contact should this continue to be required.</p>	<p>The Applicant and Natural England are now in agreement regarding potential recreational disturbance and have agreed that the RR from NE (RR-0974) was potentially misleading. It has also been agreed with Natural England that the implementation of the detailed WMP (Requirement 31) is considered sufficient to mitigate any potential recreational impacts on Burbage Common and Woods SSSI.</p>

No	ExQ Ref	Matter	Natural England Response	Applicant's Response
2	1.5.12.	<p>Article 49 - Disapplication, application and modification of legislative provisions</p> <p>a) Could the Applicant please check the referencing in the EM as this refers to Article 48.</p> <p>b) Do the EA, NE, NR, LCC as LLFA, BDC and HBBC agree with the provisions as cited? If not, could you please explain why or, if it considers alternative drafting is necessary, please provide it, making particular reference to the Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015 (as amended).</p>	<p>Part 1 (e) of this article states that 'section 28E (duties in relation to sites of special scientific interest) of the Wildlife and Countryside Act 1981(e)... do not apply I relation to the construction of any work or the carrying out of any operation required for the purpose of, or in connection with, the authorised development'</p> <p>Natural England advise that this appears to be referencing the fact that where planning permission has been granted, SSSI consent (under section 28E of the WaCA 1981) is not required for works specified within the planning consent, as NE will have been consulted and provided advice at the planning consent stage. This is correct, however, there may be a scenario where an 'operation required for the purpose of, or in connection with, the authorised development', has not been specified within the development consent order, but which may have an adverse effect on the nearby SSSI (Burbage Wood and Aston Firs). In this scenario, Natural England would anticipate either a notice for consent under Section 28E, or a consultation by the relevant planning authority for our advice in relation to the</p>	<p>The Applicant does not consider that the proposed amendment is required. A variation to the DCO would require formal amendment to the Order and the process that entails includes consultation. In the event that any amendments to the details in the Order is sought through the provisions within the Order which do allow amendment with the consent of the relevant planning authority, those amendments are required to be such that they do not give rise to materially new or materially different significant effects than those that have been assessed in the environmental statement. Even in such scenario, the Applicant expects that the relevant planning authority would consult with NE in such circumstances.</p>

Natural England

No	ExQ Ref	Matter	Natural England Response	Applicant's Response
			<p>SSSI for any variation to the development consent. This could be specified within this article, or perhaps more simply, Part 1 of the article could be amended to read: - 'The following provisions do not apply in relation to the construction of any work or the carrying out of any operation specified within this DCO, which is required for the purpose of, or in connection with, the authorised development'</p>	