East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.6A/MCO 6.6A (Part 2)

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 6A

Transport Assessment

October 2025

06

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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APPENDICES

APPENDIX 1: VISSIM Scoping Note (document reference EMG2-BWB-GEN-XX-RP-TR-0003_S2-P3)

EMGP2 VISSIM MODELLING TECHNICAL NOTE 1 – STUDY AREA AND BASE MODELLING METHODOLOGY

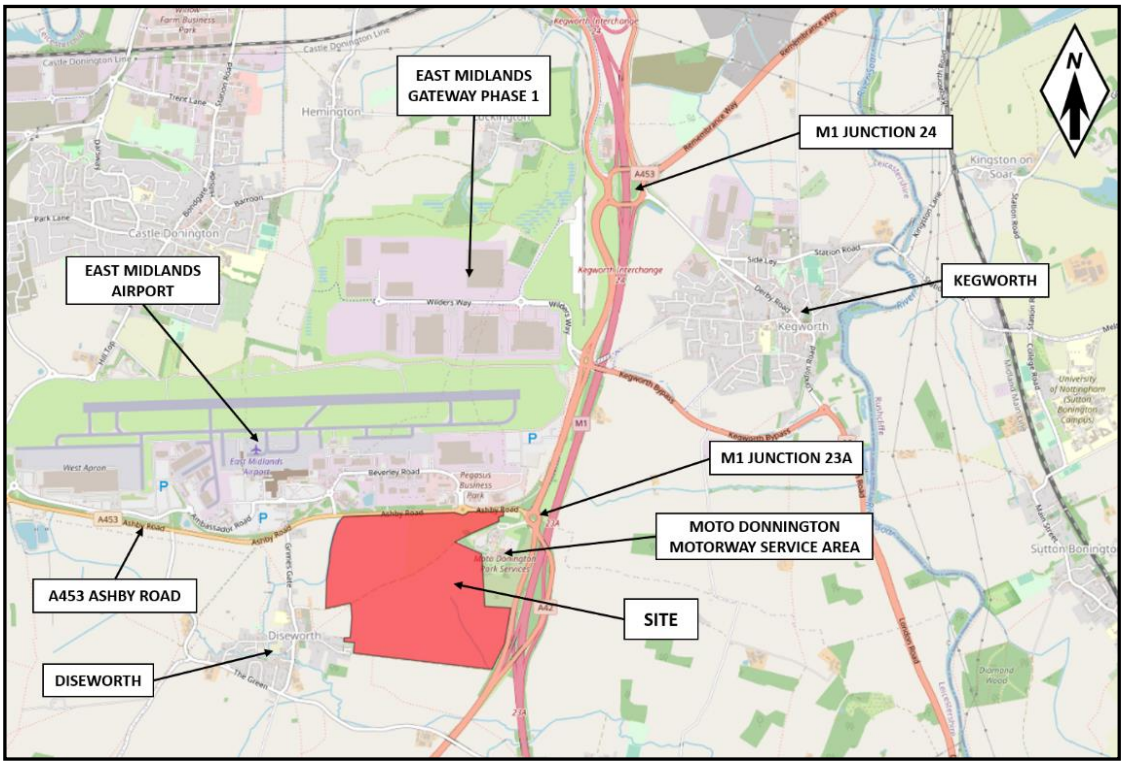
Project Name	**East Midlands Gateway, Phase 2**		
Document Number	EMG2-BWB-GEN-XX-RP-TR-0003	**BWB Ref**	220500
Author	Vibeeshan Devaharan	**Status**	S2
Checked	Matt Corner	**Revision**	P3
Approved	Paul Wilson	**Date**	24.02.23

1. INTRODUCTION

1.1 BWB Consulting Ltd have been appointed by SEGRO ("the Applicant") to provide highways and transport planning advice on a proposed Phase 2 Expansion of the East Midlands Gateway (EMG) site. The site is proposed for a B8 led employment development.

1.2 The site has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. The M1 Junction 23A lies to the east of the site with the Moto Donnington Motorway Service Area (MSA) directly abutting to the northeast. The proposals are for approximately 3.23 million sqft (300,000sqm) gross floor area (GFA) of development, of which 80% is to be assessed for B8 uses and the remaining 20% for B2 uses, all with ancillary office use. The indicative site location is shown in **Figure 1**.

Figure 1. Site Location



1.3 As part of the proposal, micro-simulation VISSIM modelling of M1 Junction 24 was requested. A VISSIM network model of base year 2012 is available and includes the following junctions:

- A50 junction 1 Sawley Interchange;
- M1 J24a;
- M1 J24;
- A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- A453/Hunter Road/minor EMG Phase 2 access roundabout
- A453 East Midlands airport internal roundabouts.

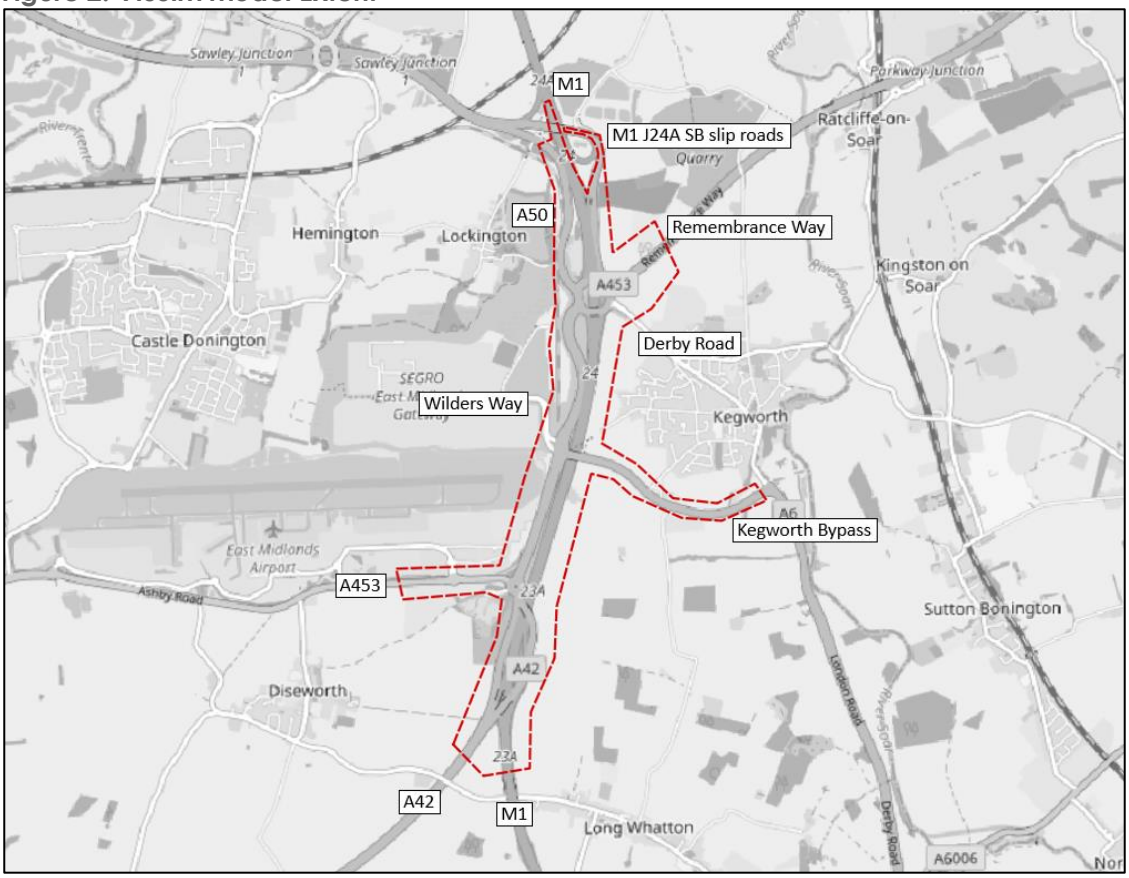
1.4 However the VISSIM model is now outdated and a calibrated/validated base model utilising more recent surveys will be required to examine the impact of the proposed development.

1.5 Therefore, as discussed at the Transport Working Group (TWG) meeting with all local highway authorities, together with Nationla Highways (NH), on 8 December 2022, it is proposed that the VISSIM model is cordoned off to include the following junctions only, from north to south:

- M1 J24a southbound merge onto the M1 and M1 junction 24;
- M1 J24 (including all merges and diverges);
- A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- A453/Hunter Road/minor EMG Phase 2 access roundabout
- A453/main EMG Phase 2 site access roundabout.

1.6 A figure illustrating the extents of the VISSIM modelling is presented in **Figure 2**.

Figure 2: VISSIM Model Extent



1.7 The proposed approach to be adopted within the VISSIM modelling was set out via email to the TWG on 9 December 2022. As requested, this Technical Note formally sets out the scope of the VISSIM model, focusing on the study area and base modelling methodology in the first instance. This revised version takes into consoderation the comments recived from NH via email on 23 January 2023 and a subsequent meeting with them on 25 January 2023.

2. VISSIM Base Modelling Methodology

Base Model Flows

2.1 Traffic surveys for junctions outlined in paragraph 1.5 have been undertaken in November 2022. A combination of traffic surveys at junctions and webtris data along the M1 and A453 will be utilised to derive an OD matrix for the VISSIM network.

2.2 A figure illustrating survey location and potential webtris data locations is shown in **Figure 2**.

Figure 3: Junction Count Locations



2.3 An initial review of the traffic flow survey has been undertaken and the morning and evening peak hours have been identified as follows:

- AM Peak: 0730 – 0830;
- PM Peak: 1700 – 1800.

2.4 It is proposed that a half an hour warm up and cool down period is added either side of the identified peak hours in the morning and evening respectively.

2.5 A LinSig skeleton model will be developed of the VISSIM network and turning counts will be input at 15 minute intervals to undertake and O-D matrix estimation exercise. Subsequently these will be exported and input into VISSIM. Edge closures and route

closures will be utilised within VISSIM to ensure any unrealistic movements are avoided, i.e. A42 to M1 will not diverge off onto M1 J23A to re-join M1.

2.6 Lights and Heavies vehicle types will be modelled, and flows will be input into VISSIM at 15-minute intervals.

2.7 It is envisaged that dynamic assignment will be utilised within VISSIM for the proposed network.

2.8 It is proposed that the models will be run for 10 iterations subject to Chi2 goodness of fit test which seeks to demonstrate that statistically the different model runs pass the goodness of fit null hypothesis that there is no significant difference in average delays between the seed values, thus demonstrating stability.

Signal Coding

2.9 It is understood that M1J24 and the A453/Kegworth by-pass gyratory operate using MOVA. A copy of the MOVA data set files and logs have been obtained from National Highways. These will be utilised within the VISSIM model using PCMOVA.

Validation & Calibration

2.10 The Design Manual for Roads and Bridges (DMRB) defines model calibration as "*the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives*". The model calibration process ensures that model has the ability to exhibit characteristics that accurately compare with observed data.

2.11 A copy of the video footage of the surveyed junctions will be obtained to reflect correct lane usage and driving behaviour as observed.

2.12 DfT Transport Analysis Guidance (TAG) states that the calibration of traffic data in a model should be based on the Geffrey E.Havers (GEH) statistic, and states that modelled flows must have a GEH value of less than 5 in at least 85% of the cases. The latest Transport for London Traffic Modelling Guidelines states that GEH values should be less than 3. Therefore, the model will be assessed against both guidelines for turning count calibration.

2.13 TAG Unit M3.1 states that "*for journey time calibration, the measure which should be used is: the percentage difference between modelled and observed journey times, subject to an absolute maximum difference*". Subsequently, Table 3 of TAG states that the "*modelled times along routes should be within 15% of surveyed times or 1 minute, if higher than 15%.*" The 15% threshold will be used to validate the model.

2.14 It is proposed the TomTom journey time data will be utilised to validate journey time in line with WebTAG guidelines. TomTom data will be obtained for the day of the survey (3rd November 2022) and an average of journey times for neutral days within November 2022. A figure illustrating journey time locations is presented in **Figures 4** and **5**.

Figure 4: Journey Time Routes (1 - 7)



Figure 5: Journey Time Routes (8-14)



3. SUMMARY

3.1 BWB Consulting Ltd have been appointed by SEGRO ("the Applicant") to provide highways and transport planning advice on a proposed Phase 2 Expansion of the East Midlands Gateway site. The site is proposed for a B8 led employment development.

3.2 As part of the proposals and discussions with the TWG, modelling of the M1 Junction 24 was requested to be undertaken using VISSIM. An outdated model of the wider network including M1 Junction 24 is available for use. Therefore, it is proposed that the VISSIM network is cordoned off to the following junctions and revalidated using the methodology contained in this Technical Note:

- M1 J24;
- M1 J24a southbound merge onto the M1 and M1 junction 24;
- A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
- M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
- A453/Hunter Road/minor EMG Phase 2 access roundabout;
- A453/EMG Phase 2 site access roundabout.

3.3 Because of the limited timescales available to submit a planning application for the proposals, BWB will continue to develop the VISSIM model on the above basis. However, prompt agreement is kindly sought from the TWG to the proposed approach.

3.4 The next stages would then be to:

i) set out the methodology proposed to furness the traffic flows soon to be provided from the East Midlands Freeport Model (EMFM) Saturn model versus those recorded in November to calculate appropriate base year and 'with development 'traffic flows as discussed briefly at the January 2023 TWG meeting and followed up formally via email on 19 January 2023

ii) issue the validated VISSIM model for agreement

iii) build on the validated VISSIM model and assess the impact of the proposed development, together with the sensitivity test including for the neighbouring Isley Walton site and other Freeport sites, using VISSIM as well as standalone Junctions 10 and LinSig models, for formal inclusion and submission within the outline planning application.

APPENDIX 2: Modelling Furnessing Approach (document reference EMG2-BWB-GEN-XX-RP-TR-0004_S2-P5)

EMGP2 TRAFFIC FLOW TECHNICAL NOTE 2 – FURNESSING AND FORECASTING METHODOLOGY

Project Name	**East Midlands Gateway, Phase 2**		
Document Number	EMG2-BWB-GEN-XX-RP-TR-0004	**BWB Ref**	220500
Author	Matt Corner	**Status**	S2
Checked	Vibeeshan Devaharan	**Revision**	P5
Approved	Paul Wilson	**Date**	04.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd have been appointed by SEGRO ("the Applicant") to provide highways and transport planning advice on a proposed Phase 2 Expansion of the East Midlands Gateway (EMG) site. The site comprises 430,000sqm of industrial development across the following sites:

- 400,000sqm of B2/B8 industrial development on EMG2, including 100,000sqm of B8 mezzanine floorspace.
- 30,000sqm of B8 industrial development on Plot 16 of EMG1.

1.2 It has been agreed with the Transport Working Group for the development impacts to be assessed using the East Midlands Freeport Model (PRTM) – a cordon of the wider Pan Regional Transport Model (PRTM). This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment. It therefore facilitates the transition from strategic to local junction modelling.

1.3 This revision of the Technical Note (Revision P4) follows the completion of an update of the PRTM base and future forecast modelling scenarios and output information. It therefore adopts the following structure:

- **Section 2: Proposed Methodology** – sets out the furnessing methodology options and the strategy that will be undertaken to determine the most appropriate methodology to derive the future forecast traffic flows.
- **Section 3: Future Forecast Traffic Flows** – provides more detail on the methodology used to derive future forecast traffic flows.
- **Section 4: Development Traffic** – sets out how the development traffic will be accounted for in the VISSIM modelling
- **Section 5: Committed Traffic** – sets out how the East Midlands Point committed development traffic will be accounted for in the VISSIM modelling
- **Section 6: Traffic Flow Data Set** – sets out the various dataset outputs provided from the PRTM and explains the dataset used in the furnessing calculations.
- **Section 7: VISSIM Modelling** – sets out the methodology of extracting PRTM cordon matrices for the VISSIM modelling work.

- **Section 8: Traffic Flow Furnessing** – sets out the future forecast traffic flows derived using the preferred methodology and for input into the detailed junction models. It also includes an example as to how the flows have been furnessed.

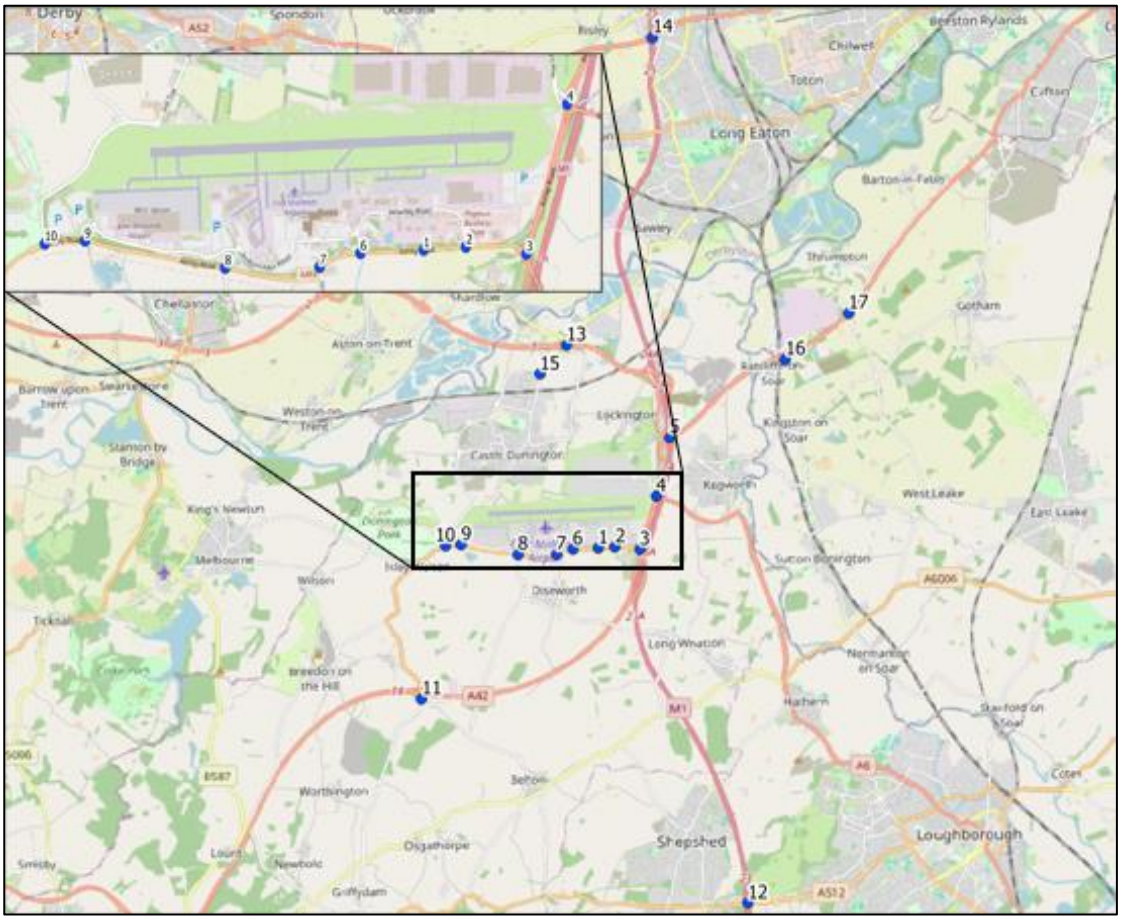
- **Section 9: Summary** – summarises the key conclusions of this Technical Note.

2. PROPOSED METHODOLOGY

Traffic Data and Model Outputs

2.1 Manual classified turning counts were commissioned in November 2022 and May 2023 at 16 junctions across the highway network (with the proposed site access roundabout on the A453 forming the 10th junction). These surveys therefore provide observed turning movements which will be used as part of the furnessing procedure to derive future forecast traffic flows and are listed below. The raw survey data for the 16 exisitng junctions is also appended at the corresponding locations as set out below, whilst the locations are shown at **Figure 1**.

Figure 1. Study Area



November 2023 Surveys

- Junction 2: A453/Hunter Road roundabout (**Appendix 1**)

- Junction 3: Finger Farm roundabout (**Appendix 2**)
- Junction 4: EMGP1 gyratory (**Appendix 3**)
- Junction 5: M1 Junction 24 (**Appendix 4**)
- Junction 6: A453/Grimes Gate priority junction (**Appendix 5**)
- Junction 7: A453/The Green priority junction (**Appendix 6**)
- Junction 8: A453/East Midlands Airport signal junction (**Appendix 7**)
- Junction 9: A453/East Midlands Airport roundabout (**Appendix 8**)
- Junction 10: A453/Walton Hill signal junction (**Appendix 9**)
- Junction 12: M1 Junction 23 (**Appendix 10**)

May 2023 Surveys

- Junction 11: A42 Junction 14 on-slip/A453/Top Brand/Gelscoe Lane Roundabout (**Appendix 11**)
- Junction 13: A50 Junction 1 (**Appendix 12**)
- Junction 14: M1 Junction 25 (**Appendix 13**)
- Junction 15: Station Road/Broad Rushes Roundabout (**Appendix 14**)
- Junction 16: A453/Kegworth Road Roundabouts (**Appendix 15**)
- Junction 17: A453/Barton Lane/West Leake dumbbell Roundabouts (**Appendix 16**)

2.2 The EMFM was updated to a 2019 base year and outputs are being are being provided for 2022, 2023, 2024, 2028 and 2038 scenarios. Hence, an initial comparison will be undertaken between the 2022 observed counts and 2022 flows from the PRTM to understand turning count validation, details of which are provided in the next section.

Traffic Flow Validation

2.3 The first step in understanding the most appropriate furnessing methodology is to compare the 2022 traffic flows from the PRTM against observed counts to provide an indication of the statistical significance of any differences. This has been undertaken using the GEH Statistics formula. The formula is set out below where M is the hourly traffic volume of the PRTM and C is the hourly traffic volume from the observed count.

$$GEH = \sqrt{\frac{2(M-C)^2}{M+C}}$$

2.4 It is generally accepted that a GEH value below 5 represents a good correlation between the two datasets. Details of the analysis for all 10 junctions highlighted in Paragraph 2.1 has been presented in Section 3.

Traffic Flow Furnessing Options

2.5 Orginially, four possible methodologies for furnessing the PRTM model outputs to derive future forecast traffic flows were being considered. The followng details provide a brief overview of each option, highlighting the benefits and potential downfalls of each one.

Option 1 – Extraction of target entry and exit flows directly from PRTM

2.6 Option 1 involves taking the future year traffic flows directly from the PRTM. This option would only be suitable if the 2022 turning counts compare well against the PRTM base year flows i.e. GEH less than 5.

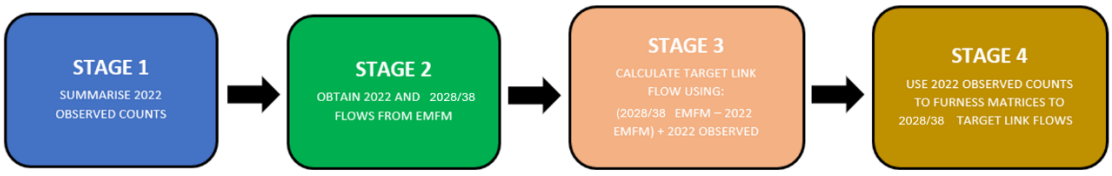
2.7 The benefit of this method is the reduced number of assumptions applied to derive the target trip ends. Notwithstanding this, during a meeting with the Transport Working Group on 12 January 2023, Leicestershire County Council raised concern with this methodology suggesting that whilst the PRTM is well validated against observed link data, it is not calibrated/validated against individual turning movements and hence this option would unlikely be acceptable.

Option 2 – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts

2.8 Option 2 invovles calculating the percentage difference between the 2022 base and 2028/2038 future PRTM flows and applying the percentage growth directly to the 2022 observed counts at turning movement level. This option has the potential to significantly exacerbate future traffic flows and hence will need to be undertaken alongside a manual assessment.

2.9 For example, should the PRTM traffic flows show a turning movement of 1 vehicle in the base year (2022) increasing to 5 movements in the future year (2038), then this equates to a 500% increase. If the 500% increase is applied to a turning movement of 20 vehicles recorded from an observed count then this would result in 100 movements at the future year, which could be a significant overestimate. The four stage methodology invovled with Option 2 is shown in **Figure 2**.

Figure 2: Option 2 Furnessing Methdology

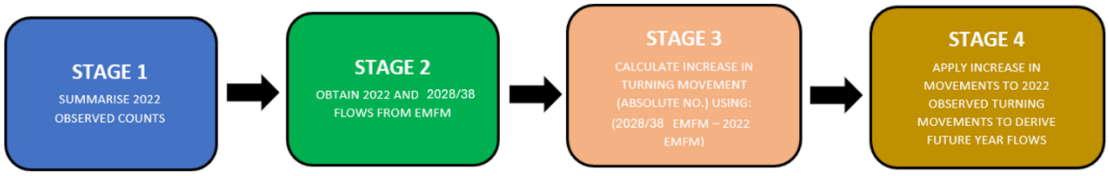


Option 3 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts

2.10 Option 3 calcuates the difference between the 2022 base and 2028/2038 future PRTM flows in absolute numbers and applies the increase directly to the 2022 observed counts. This option would only be suitable if the 2022 observed counts show good levels of

correlation against the 2022 PRTM base flows using the GEH Statistics formula. The four stage furnessing methdology for Option 3 is shown in **Figure 3**.

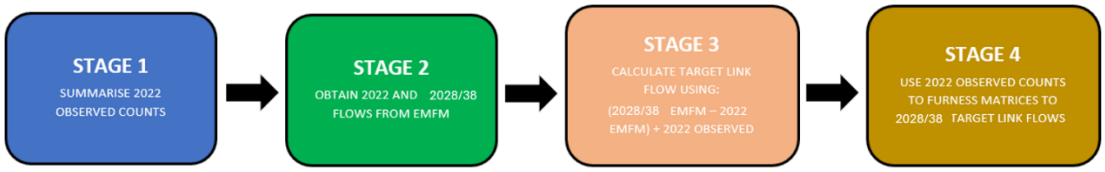
Figure 3: Option 3 Furnessing Methdology



Option 4 – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase propotionatley to the 2022 observed turning counts

2.11 Option 4 involves adding the difference in link flows between the 2022 base and 2028/38 future PRTM to the 2022 observed link flows to derive a target link flow. The target link flow is applied proportionally in accordance with the observed turning movements to derive forecast traffic flow matrices. The four stage furnessing methdology for Option 4 is shown in **Figure 4**.

Figure 4: Option 4 Furnessing Methdology



3. FUTURE FORECAST TRAFFIC FLOWS

GEH Statistics

3.1 To start with, a comparison was made between the latest received 2022 PRTM flows and the 2022 observed counts to understand the statistical signifiance of any differences. This was undertaken for Junctions 1 to 9 which formed the original study area. To do this, an Excel spreadsheet was sent separately comparing light and heavy goods vehicle turning movements for both peak hours. The formula set out at Paragraph 2.3 was then applied to compare the two datasets.

3.2 A copy of the calculations is included at **Appendix 17**, which shows that all junctions have turning movements with a GEH value in excess of 5 and hence outside of the critieria for where there is a good level of correlation. On this basis, the furnessing options 1 and 3 detailed in Section 2 have been disregarded.

3.3 The percentage growth between PRTM base and forecast years were calculated; however, this resulted in large overestimations as described in Paragraph 2.11. Option 4 has however still been utilised to furness forecast traffic flow matrices.

Furnessing Methodology

3.4 The furnessing approach for Option 4 has been built using an MS Excel macro using VBA to ensure an extensive spreadsheet is not required to display every iteration of the furnessing. This also ensures that the methodology is consistent between all furnessed matrices. A summary of the process undertaken by the macros is provided below.

- Column adjustment: calculate turning counts across columns using survey data proportions in combination with the target link flow out of each arm.
- Sum row: calculate the sum of each arm row total.
- Row adjustment: calculate turning counts across rows using survey data proportions in combination with the target link flow into each arm.
- Sum column: calculate the sum of each column.
- Round all values in the matrix to the closest integer.
- Update sums for column and row total.
- Repeat the above 'x' number of iterations until the flows converge.

3.5 The macro has been built to run the furnessing 20 times for each matrix, however it should be noted that every time the macro is executed, it runs an additional 20 times. The furnessing spreadsheet therefore has been run for at least 20 iterations. The furnessing methodology has been double constrained, i.e. both origin and destination and the traffic flow matrices are furnessed until link flows are within a GEH of 3.

3.6 Additional matrices are provided to calculate the absolute difference and percentage difference between the forecast and furnessed link flows for each scenario respectively. A review of these indicates that this is considered to be convergent with the accepted furnessing methodology.

3.7 For certain turning movements there is expected to be negative growth. The PRTM rassigns vehicle routes based on delays and cost of journey and therefore some movements may experience a reduction in flows. The negative growth forecast by PRTM will also be taken into account during furnessing as excluding this would overestimate impacts at junctions.

3.8 Due to high volumes of traffic that travel on the motorways and key A-roads there is the potential for these numbers to affect the furnessing outputs. As the furnessing process is based on turning proportions, the large motorway flows could cause the furnessing to assign traffic that would use the junction o the motorway mainline movements instead.

3.9 Therefore, there M1 and A42 mainline flows have been removed and furnessed seperately to avoid any re assignment.

4. DEVELOPMENT TRAFFIC

4.1 Strategic models reroute traffic in response to congestion within the network. To ensure the true impact of the development is modelled and mitigation is provided along the main routes that the development traffic would take, rather than rerouting via smaller junctions. The distribution of development traffic was extracted from the PRTM model, and it is proposed that the assignment of development traffic is assigned manually to exclude for any rerouting of traffic as a result the proposed development.

4.2 It was noticed that in the latest PRTM outputs that 7% of development car trips are originating/travelling to East Midlands Airport. This was queried this with AECOM/LCC NDI and it is because EMA is a zone in PRTM. Therefore, it is proposed to proportionately distribute the 7% of traffic to/from EMA along the seven highest other routes as set out to the TWG.

5. COMMITTED DEVELOPMENT TRAFFIC

5.1 The East Midlands Point comitted development off Finger Farm roundabout has been included in the PRTM modelling however as the development is not operational, there are no surveyed flows associated with the development. As such, the forecast traffic flows associated with the development has been directly extracted from the PRTM VISSIM cordon matrices and will be utilised for assessment in VISSIM.

6. TRAFFIC FLOW DATA SET

6.1 BWB was provided a copy of both 'Actual' and 'Demand' flow datasets by AECOM. Demand flow within SATURN does not assume a fully unconstrained network, both demand and actual flow account for all network constraints i.e. congestion, etc. and include for rerouting within the network.

6.2 Demand flow can be considered as the flow from the model assignment within the modelled period, independent of when the flow arrives i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900, demand flow will be displayed as 100.

6.3 On the contrary, actual flows can be considered as the flow that reaches a particular link or turn during the simulated time, i.e. if 100 vehicles are predicted to arrive at a certain junction between 0800-0900 however 20 vehicles are unable to get to the link within the modelled time due to constraints elsewhere in the network, actual flows will be displayed as 80 vehicles.

6.4 Discussions were held with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised within the modelling therefore all furnessing has been undertaken utilising 'Actual' flow data.

7. VISSIM MODELLING

7.1 A VISSIM model has been developed for the following junctions.

i. M1 J24;

ii. M1 J24a southbound merge onto the M1 and M1 junction 24;

iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;

iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);

v. A453/Hunter Road/minor EMG Phase 2 access roundabout;

vi. A453/EMG Phase 2 site access roundabout.

7.2 Subsequently cordoned model flows have been obtained from AECOM to furness the traffic flows for each of the junctions in the VISSIM network in line with furnessing methodology Option 4 to derive forecast modelling traffic flow matrices.

Post Stage 1a Modelling

7.3 Stage 1a modelling comprises of 2028/38 forecast years with committed development, proposed development and Local Plan allocations

7.4 Upon receiving the Stage 1a VISSIM Corden modelling outputs from AECOM, a review of the data was undertaken to determine if the PRTM model outputs were coherent and that there was no unforeseen increase/decrease in flows on the links within the VISSIM network.

7.5 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously. A proportion of the reduction in flows between the 2022 datasets were as a result of lower traffic flows accessing/egressing the EMG 1 site having previously considered such informatio in greater detail. The EMG1 traffic flows are more in line with that set out in the planning application. However, in addition to this, reduction in flows were noted primarily on the A42 and M1 S approach arms.

7.6 The agreed furnessing methodology, Option 4, calculates the flow difference between 2022 base and forecast modelling scenarios and adds the increase/decrease in traffic to the observed link flows. Therefore a lower 2022 base would provide a higher furnessed link flow to be modelled in VISSIM.

7.7 Whilst this approach has been retained, an additional comparison has been undertaken between the furnessed link flows and PRTM link flows by way of considering flows forecast to travel along each link in 2038. This is illustrated in **Table 1** below.

		AM Origin Total			PM Origin Total		
Link No	**Link Name**	**Furnessed Target Flows**	**2038 Raw Link Flows**	**Diff**	**Furnessed Target Flows**	**2038 Raw Link Flows**	**Diff**
1	A50	2720	2650	-70	1926	2884	+958
2	M1 North	5957	4558	-1399	5309	4011	-1298
3	A453 Remembrance Way	1769	2163	+394	2112	2364	+252
4	Derby Road	684	857	+173	639	938	+299
5	Hilton Lane	493	524	+31	342	446	+104

6	Keg Worth Bypass	1028	1008	-20	1045	1083	+38
7	M1 South	5253	5160	-93	5710	5286	-424
8	A42	2895	2793	-102	2164	2547	+383
9	A453	614	670	+56	948	959	+11
10	Wilders Way	217	202	-15	655	842	+187
11	Services	259	0	-259	268	0	-268
12	Hunter Road	107	106	-1	263	411	+148

7.8 Based on the above, there are some links that have significant changes in vehicles. As a result, a further option (Option 5) has been considered to furness the flows, where the target link flows have been extrcated the PRTM outputs In 2038 and the turning proportions have been split proportionally using the 2022 observed turning movements.

7.9 Both scenarios will be tested within VISSIM to determine if the mitigation still provides the benefits envisaged within the internal testing.

8. TRAFFIC FLOW FURNESSING

8.1 Future forecast traffic flows for the 2028 and 2038 assessment years have been derived in line with the Option 4 methodology, using outputs from the PRTM and the survey data (noting the junctions included in VISSIM have used separate outputs from the cordon model flows). Option 5 methodology has also been utilised to provide a sensitivity test.

8.2 A copy of the furnessing spreadsheet has been issued separately which show that the vast majority of link flows are converged so that furnessed link flows are within a GEH of 5 of calculated link flows. In calculating the final Passenger Car Unit (PCU) flows, a PCU factor of 2.0 has been applied to all HGVs and 1.0 for light vehicles, which mirrors the PRTM for consistency.

8.3 A worked example of how the traffic flows have been furnessed is shown on the 'Furness Process' tab within the spreadsheets.

9. SUMMARY

9.1 This Technical Note has been produced to set out the furnessing methodology to derive future forecast traffic flow matrices for each junction being assessed in the Transport Assessment.

9.2 To understand how the 2022 PRTM flows compare to the 2022 observed counts at each junction, the GEH Statistics formula has been used to provide an indication of the statistical significance of any differences. This will then provide a gauge as to which of the four furnessing methodologies considered up until this point is most appropriate, which are summarised below:

- **Option 1** – Extraction of target entry and exit flows directly from PRTM
- **Option 2** – Use 2022 PRTM model base in conjunction with future PRTM flows to calculate percentage growth factors and apply this to the 2022 observed counts

- **Option 3** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in turning movements and apply this to the 2022 observed counts
- **Option 4** – Use 2022 PRTM base in conjunction with future PRTM flows to calculate absolute increases in link flows and apply the increase propotionatley to the 2022 observed turning counts

9.3 A comparison of GEH indicated that several movements for all surveyed junctions did not meet the GEH threshold therefore Options 1 and 3 had been discounted.

9.4 Furthermore, a review of the percentage increase between PRTM base and forecast traffic flow matrices was calculated however this resulted in a significant overestimate of traffic flow movements in some instances therefore Option 2 has also been discounted.

9.5 Based on the above, it is considered that Option 4 is the most appropriate furnessing methodology to be utilised in this instance.

9.6 Discussions were undertaken with AECOM and LCC/NDI and it was concluded that 'Actual' flows should be utilised in the forecast modelling scenarios.

9.7 Additionally, NH was consulted on the approach to utilise forecast flows within the VISSIM modelling and it was concluded that a cordon of the VISSIM extent should be used to extract OD flows from PRTM. Subsequently Option 4 furnessing methodology will be used to derive forecast traffic flow matrices.

9.8 A review of the Stage 1a VISSIM cordon model was undertaken, which indicated that the 2022 flows provided as part of Stage 1a were lower than that provided previously. The agreed Option 4 furnessing methodology would provide a higher furnessed link flow to be modelled in VISSIM as a result.

9.9 Nevertheless, this approach has been retained, albeit an additional sensitivity test – **Option 5** - will be undertaken to utilise PRTM link flows as the target flows and proportion these in accordance with the surveyed traffic flows.

9.10 Both scenarios will be tested within VISSIM to determine if the suggested mitigation still provides significant benefits. The final furnessed traffic flows at this stage of the process for the forecast years have been provided within separate spreadsheets.

APPENDIX 1 – A453/Hunter Road Roundabout Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 3
Approach: Hunter Road

	Left to A453 (E)									Right to A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	23	1	0	1	3	28	32.3	0	0	6	0	1	0	0	7	7.5
07:15 - 07:30	0	0	16	0	2	1	0	19	21.3	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	17	4	4	0	4	29	35.0	0	0	6	0	0	0	0	6	6.0
07:45 - 08:00	0	0	16	0	0	0	1	17	18.0	0	0	3	2	0	0	0	5	5.0
Hourly Total	**0**	**0**	**72**	**5**	**6**	**2**	**8**	**93**	**106.6**	**0**	**0**	**17**	**2**	**1**	**0**	**0**	**20**	**20.5**
08:00 - 08:15	0	0	23	3	2	3	2	33	39.9	0	0	6	4	0	0	0	10	10.0
08:15 - 08:30	0	0	19	7	0	1	1	28	30.3	0	0	5	0	0	0	0	5	5.0
08:30 - 08:45	0	0	28	4	2	0	2	36	39.0	0	0	5	1	0	0	0	6	6.0
08:45 - 09:00	0	0	9	3	2	2	2	18	23.6	0	0	0	1	0	0	0	1	1.0
Hourly Total	**0**	**0**	**79**	**17**	**6**	**6**	**7**	**115**	**132.8**	**0**	**0**	**16**	**6**	**0**	**0**	**0**	**22**	**22.0**
09:00 - 09:15	0	0	4	1	1	2	2	10	15.1	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	11	5	2	0	3	21	25.0	0	0	2	2	2	0	0	6	7.0
09:30 - 09:45	0	0	13	6	2	0	1	22	24.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	5	3	1	0	4	13	17.5	0	0	2	0	0	1	0	3	4.3
Hourly Total	**0**	**0**	**33**	**15**	**6**	**2**	**10**	**66**	**81.6**	**0**	**0**	**8**	**3**	**2**	**1**	**0**	**14**	**16.3**
TOTAL	**0**	**0**	**184**	**37**	**18**	**10**	**25**	**274**	**321.0**	**0**	**0**	**41**	**11**	**3**	**1**	**0**	**56**	**58.8**
16:00 - 16:15	0	0	118	6	0	3	4	131	138.9	0	0	20	0	0	0	0	20	20.0
16:15 - 16:30	0	0	70	4	1	3	1	79	84.4	0	0	6	0	0	0	1	7	8.0
16:30 - 16:45	0	0	80	7	0	1	1	89	91.3	0	0	12	0	0	0	0	12	12.0
16:45 - 17:00	0	0	64	1	1	1	3	70	74.8	0	0	6	0	0	0	1	7	8.0
Hourly Total	**0**	**0**	**332**	**18**	**2**	**8**	**9**	**369**	**389.4**	**0**	**0**	**44**	**0**	**0**	**0**	**2**	**46**	**48.0**
17:00 - 17:15	0	0	101	3	1	1	2	108	111.8	0	0	14	0	0	0	0	14	14.0
17:15 - 17:30	0	0	85	7	2	2	1	97	101.6	0	0	7	1	0	0	0	8	8.0
17:30 - 17:45	0	0	60	7	2	2	1	72	76.6	0	0	5	0	0	0	0	5	5.0
17:45 - 18:00	0	0	64	8	1	4	0	77	82.7	0	0	7	0	1	0	0	8	8.5
Hourly Total	**0**	**0**	**310**	**25**	**6**	**9**	**4**	**354**	**372.7**	**0**	**0**	**33**	**1**	**1**	**0**	**0**	**35**	**35.5**
18:00 - 18:15	0	0	41	2	0	0	3	46	49.0	0	0	7	0	0	0	0	7	7.0
18:15 - 18:30	0	0	38	3	0	1	2	44	47.3	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	29	0	2	8	1	40	52.4	0	0	1	1	0	0	0	2	2.0
18:45 - 19:00	0	0	23	0	1	2	3	29	35.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**131**	**5**	**3**	**11**	**9**	**159**	**183.8**	**0**	**0**	**9**	**1**	**0**	**0**	**0**	**10**	**10.0**
TOTAL	**0**	**0**	**773**	**48**	**11**	**28**	**22**	**882**	**945.9**	**0**	**0**	**86**	**2**	**1**	**0**	**2**	**91**	**93.5**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 3
Approach: A453 East

	Ahead to A453 (W)									Right to Hunter Road									U-Turn								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	118	18	6	4	0	146	154.2	0	1	29	1	0	3	1	35	39.3	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	99	28	6	3	0	136	142.9	0	0	38	0	2	1	2	43	47.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	135	15	2	7	0	159	169.1	0	0	54	4	1	3	3	65	72.4	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	101	14	5	5	1	126	136.0	0	0	102	3	1	2	2	110	115.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**453**	**75**	**19**	**19**	**1**	**567**	**602.2**	**0**	**1**	**223**	**8**	**4**	**9**	**8**	**253**	**274.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	102	15	3	5	0	125	133.0	0	1	81	8	2	0	1	93	94.4	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	127	16	3	9	0	155	168.2	0	0	108	6	1	0	1	116	117.5	0	0	0	1	0	0	0	1	1.0
08:30 - 08:45	0	0	122	19	8	6	2	157	170.8	0	0	96	5	0	0	2	103	105.0	0	0	2	1	0	0	0	3	3.0
08:45 - 09:00	0	0	97	16	4	4	0	121	128.2	0	0	82	4	1	1	0	88	89.8	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**448**	**66**	**18**	**24**	**2**	**558**	**600.2**	**0**	**1**	**367**	**23**	**4**	**1**	**4**	**400**	**406.7**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**5.0**
09:00 - 09:15	0	0	77	11	7	4	1	100	109.7	0	1	78	6	1	3	3	92	98.8	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	58	13	5	5	0	81	90.0	0	0	68	4	1	2	2	77	82.1	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	1	53	8	4	7	0	73	83.5	0	0	31	4	3	2	2	42	48.1	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	2	41	12	6	9	1	71	85.5	0	0	31	7	1	1	2	42	45.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**3**	**229**	**44**	**22**	**25**	**2**	**325**	**368.7**	**0**	**1**	**208**	**21**	**6**	**8**	**9**	**253**	**274.8**	**0**	**0**	**8**	**1**	**0**	**0**	**0**	**9**	**9.0**
TOTAL	**0**	**3**	**1130**	**185**	**59**	**68**	**5**	**1450**	**1571.1**	**0**	**3**	**798**	**52**	**14**	**18**	**21**	**906**	**955.6**	**0**	**0**	**11**	**3**	**0**	**0**	**0**	**14**	**14.0**
16:00 - 16:15	0	0	92	14	3	7	0	116	126.6	0	0	18	2	1	1	3	25	29.8	0	0	3	1	1	0	0	5	5.5
16:15 - 16:30	0	0	83	13	1	8	0	105	115.9	0	0	21	3	4	2	2	32	38.6	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	92	24	3	4	0	123	129.7	0	0	16	2	0	1	1	20	22.3	0	0	1	2	0	0	0	3	3.0
16:45 - 17:00	0	0	122	27	2	3	1	155	160.9	0	0	18	2	0	2	2	24	28.6	0	0	2	2	0	0	0	4	4.0
Hourly Total	**0**	**0**	**389**	**78**	**9**	**22**	**1**	**499**	**533.1**	**0**	**0**	**73**	**9**	**5**	**6**	**8**	**101**	**119.3**	**0**	**0**	**7**	**5**	**1**	**0**	**0**	**13**	**13.5**
17:00 - 17:15	0	2	120	12	4	2	0	140	143.4	0	0	15	4	2	1	1	23	26.3	0	0	3	0	1	0	0	4	4.5
17:15 - 17:30	0	0	112	15	6	5	0	138	147.5	0	0	27	3	0	3	3	36	42.9	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	102	14	3	2	0	121	125.1	0	0	26	2	1	0	2	31	33.5	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	98	13	3	1	0	115	117.8	0	0	29	4	1	2	0	36	39.1	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**2**	**432**	**54**	**16**	**10**	**0**	**514**	**533.8**	**0**	**0**	**97**	**13**	**4**	**6**	**6**	**126**	**141.8**	**0**	**0**	**10**	**0**	**1**	**0**	**0**	**11**	**11.5**
18:00 - 18:15	0	0	92	12	2	3	0	109	113.9	0	0	19	4	0	2	2	27	31.6	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	103	10	3	2	0	119	122.5	0	0	24	2	0	6	3	35	45.8	0	0	2	0	0	0	0	2	2.0
18:30 - 18:45	0	2	77	6	2	2	0	89	91.4	0	0	13	1	1	1	0	16	17.8	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	69	5	2	5	0	81	88.5	0	0	27	3	2	1	3	36	41.3	0	0	0	0	0	1	0	1	2.3
Hourly Total	**0**	**3**	**341**	**33**	**9**	**12**	**0**	**398**	**416.3**	**0**	**0**	**83**	**10**	**3**	**10**	**8**	**114**	**136.5**	**0**	**0**	**6**	**0**	**0**	**1**	**0**	**7**	**8.3**
TOTAL	**0**	**5**	**1162**	**165**	**34**	**44**	**1**	**1411**	**1483.2**	**0**	**0**	**253**	**32**	**12**	**22**	**22**	**341**	**397.6**	**0**	**0**	**23**	**5**	**2**	**1**	**0**	**31**	**33.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 3
Approach: A453 West

	Left to Hunter Road									Ahead to A453 (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	3	1	1	0	0	5	5.5	0	0	64	11	2	9	0	86	98.7
07:15 - 07:30	0	0	9	1	0	0	0	10	10.0	0	2	99	21	6	7	0	135	145.9
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	1	100	17	5	14	0	137	157.1
07:45 - 08:00	0	0	25	0	1	0	0	26	26.5	0	0	103	17	4	5	1	130	139.5
Hourly Total	**0**	**0**	**40**	**2**	**2**	**0**	**0**	**44**	**45.0**	**0**	**3**	**366**	**66**	**17**	**35**	**1**	**488**	**541.2**
08:00 - 08:15	0	0	10	0	0	0	0	10	10.0	0	0	103	26	3	8	1	141	153.9
08:15 - 08:30	0	0	12	0	0	0	0	12	12.0	0	0	117	28	6	12	1	164	183.6
08:30 - 08:45	0	0	7	1	0	0	0	8	8.0	0	0	66	19	5	12	1	103	122.1
08:45 - 09:00	0	0	8	1	0	0	0	9	9.0	0	0	65	9	4	14	1	93	114.2
Hourly Total	**0**	**0**	**37**	**2**	**0**	**0**	**0**	**39**	**39.0**	**0**	**0**	**351**	**82**	**18**	**46**	**4**	**501**	**573.8**
09:00 - 09:15	0	0	11	1	0	0	0	12	12.0	0	0	48	7	9	7	0	71	84.6
09:15 - 09:30	0	0	3	0	0	0	0	3	3.0	0	1	38	11	4	6	1	61	71.2
09:30 - 09:45	0	0	2	0	0	0	0	2	2.0	0	0	27	11	6	5	1	50	60.5
09:45 - 10:00	0	0	6	0	0	0	0	6	6.0	0	0	37	10	2	7	0	56	66.1
Hourly Total	**0**	**0**	**22**	**1**	**0**	**0**	**0**	**23**	**23.0**	**0**	**1**	**150**	**39**	**21**	**25**	**2**	**238**	**282.4**
TOTAL	**0**	**0**	**99**	**5**	**2**	**0**	**0**	**106**	**107.0**	**0**	**4**	**867**	**187**	**56**	**106**	**7**	**1227**	**1397.4**
16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	0	110	18	5	8	0	141	153.9
16:15 - 16:30	0	0	2	0	0	0	0	2	2.0	0	0	98	17	5	1	0	121	124.8
16:30 - 16:45	0	0	4	0	0	0	0	4	4.0	0	0	122	17	2	3	0	144	148.9
16:45 - 17:00	0	0	3	2	0	0	0	5	5.0	0	0	125	15	0	2	1	143	146.6
Hourly Total	**0**	**0**	**11**	**2**	**0**	**0**	**0**	**13**	**13.0**	**0**	**0**	**455**	**67**	**12**	**14**	**1**	**549**	**574.2**
17:00 - 17:15	0	0	6	0	0	0	0	6	6.0	0	0	136	11	1	3	1	152	157.4
17:15 - 17:30	0	0	8	0	0	0	0	8	8.0	0	0	73	4	1	3	0	81	85.4
17:30 - 17:45	0	0	5	3	0	0	0	8	8.0	0	0	135	9	2	3	1	150	155.9
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	0	134	7	1	1	0	143	144.8
Hourly Total	**0**	**0**	**25**	**3**	**0**	**0**	**0**	**28**	**28.0**	**0**	**0**	**478**	**31**	**5**	**10**	**2**	**526**	**543.5**
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	94	9	1	2	0	106	109.1
18:15 - 18:30	0	0	6	0	0	0	0	6	6.0	0	0	79	8	2	1	0	90	92.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	1	62	6	0	1	0	70	70.7
18:45 - 19:00	0	0	5	1	0	0	0	6	6.0	0	0	55	6	1	2	0	64	67.1
Hourly Total	**0**	**0**	**17**	**1**	**0**	**0**	**0**	**18**	**18.0**	**0**	**1**	**290**	**29**	**4**	**6**	**0**	**330**	**339.2**
TOTAL	**0**	**0**	**53**	**6**	**0**	**0**	**0**	**59**	**59.0**	**0**	**1**	**1223**	**127**	**21**	**30**	**3**	**1405**	**1456.9**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 2 – Finger Farm Roundabout Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: A453 North

	To M1 J23A Access									To Donington Services Access										To A453 (W)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	47	13	4	10	0	74	89.0	0	0	4	5	4	11	0	24	40.3	0	1	78	4	2	1	1	87	89.7
07:15 - 07:30	0	0	41	10	1	0	1	53	54.5	0	0	7	0	3	4	0	14	20.7	0	0	77	10	3	3	2	95	102.4
07:30 - 07:45	0	0	63	23	7	12	0	105	124.1	0	1	5	3	0	0	0	9	8.4	0	0	93	6	1	3	3	106	113.4
07:45 - 08:00	0	0	119	42	6	18	0	185	211.4	0	0	9	2	0	3	0	14	17.9	0	0	73	4	2	4	3	86	95.2
Hourly Total	**0**	**0**	**270**	**88**	**18**	**40**	**1**	**417**	**479.0**	**0**	**1**	**25**	**10**	**7**	**18**	**0**	**61**	**87.3**	**0**	**1**	**321**	**24**	**8**	**11**	**9**	**374**	**400.7**
08:00 - 08:15	0	0	122	30	4	10	0	166	181.0	0	0	12	7	1	4	0	24	29.7	0	1	82	9	1	2	1	96	99.5
08:15 - 08:30	0	0	67	20	2	15	0	104	124.5	0	0	16	2	0	2	0	20	22.6	0	0	117	10	2	2	1	132	136.6
08:30 - 08:45	0	0	48	15	7	12	1	83	103.1	0	0	13	2	0	4	0	19	24.2	0	0	122	11	0	2	3	138	143.6
08:45 - 09:00	0	0	49	9	3	12	1	74	92.1	0	0	18	3	0	4	0	25	30.2	0	0	76	12	0	1	0	89	90.3
Hourly Total	**0**	**0**	**286**	**74**	**16**	**49**	**2**	**427**	**500.7**	**0**	**0**	**59**	**14**	**1**	**14**	**0**	**88**	**106.7**	**0**	**1**	**397**	**42**	**3**	**7**	**5**	**455**	**470.0**
09:00 - 09:15	0	0	18	4	8	11	0	41	59.3	0	0	14	4	1	2	0	21	24.1	0	1	81	6	3	3	4	98	106.8
09:15 - 09:30	0	0	28	5	4	9	0	46	59.7	0	0	18	4	2	5	1	30	38.5	0	0	77	8	1	1	1	88	90.8
09:30 - 09:45	0	0	11	4	6	7	0	28	40.1	0	0	19	2	3	6	0	30	39.3	0	1	44	7	0	4	2	58	64.6
09:45 - 10:00	0	0	12	7	3	11	1	34	50.8	0	1	14	5	2	3	0	25	29.3	0	2	37	6	5	4	2	56	64.5
Hourly Total	**0**	**0**	**69**	**20**	**21**	**38**	**1**	**149**	**209.9**	**0**	**1**	**65**	**15**	**8**	**16**	**1**	**106**	**131.2**	**0**	**4**	**239**	**27**	**9**	**12**	**9**	**300**	**326.7**
TOTAL	**0**	**0**	**625**	**182**	**55**	**127**	**4**	**993**	**1189.6**	**0**	**2**	**149**	**39**	**16**	**48**	**1**	**255**	**325.2**	**0**	**6**	**957**	**93**	**20**	**30**	**23**	**1129**	**1197.4**
16:00 - 16:15	0	0	72	14	2	10	0	98	112.0	0	0	12	4	4	5	0	25	33.5	0	0	21	8	0	1	2	32	35.3
16:15 - 16:30	0	0	78	18	4	11	0	111	127.3	0	0	9	5	0	3	0	17	20.9	0	0	39	6	0	1	2	48	51.3
16:30 - 16:45	0	0	81	11	0	6	1	99	107.8	0	0	12	2	0	4	0	18	23.2	0	0	9	9	2	2	1	23	27.6
16:45 - 17:00	0	0	67	6	2	7	0	82	92.1	0	0	14	3	0	3	0	20	23.9	0	0	28	14	0	1	3	46	50.3
Hourly Total	**0**	**0**	**298**	**49**	**8**	**34**	**1**	**390**	**439.2**	**0**	**0**	**47**	**14**	**4**	**15**	**0**	**80**	**101.5**	**0**	**0**	**97**	**37**	**2**	**5**	**8**	**149**	**164.5**
17:00 - 17:15	0	0	95	4	1	3	0	103	107.4	0	0	9	2	3	6	0	20	29.3	0	1	24	6	5	2	1	39	44.5
17:15 - 17:30	0	0	64	5	3	7	0	79	89.6	0	0	12	2	0	5	0	19	25.5	0	0	50	12	3	1	3	69	74.8
17:30 - 17:45	0	0	72	7	1	7	0	87	96.6	0	0	13	0	0	4	0	17	22.2	0	0	21	7	2	2	2	34	39.6
17:45 - 18:00	0	0	77	8	3	10	0	98	112.5	0	0	19	5	0	8	0	32	42.4	0	0	29	4	1	2	0	36	39.1
Hourly Total	**0**	**0**	**308**	**24**	**8**	**27**	**0**	**367**	**406.1**	**0**	**0**	**53**	**9**	**3**	**23**	**0**	**88**	**119.4**	**0**	**1**	**124**	**29**	**11**	**7**	**6**	**178**	**198.0**
18:00 - 18:15	0	0	105	6	2	7	1	121	132.1	0	0	11	0	2	4	0	17	23.2	0	0	40	11	0	4	2	57	64.2
18:15 - 18:30	0	0	58	2	3	5	1	69	78.0	0	1	10	1	1	3	0	16	19.8	0	1	79	9	1	3	3	96	102.8
18:30 - 18:45	0	0	78	3	2	5	0	88	95.5	0	0	11	2	0	2	0	15	17.6	0	1	58	3	2	0	0	64	64.4
18:45 - 19:00	0	0	34	2	1	5	0	42	49.0	0	0	16	6	0	4	0	26	31.2	0	0	47	5	3	1	3	59	64.8
Hourly Total	**0**	**0**	**275**	**13**	**8**	**22**	**2**	**320**	**354.6**	**0**	**1**	**48**	**9**	**3**	**13**	**0**	**74**	**91.8**	**0**	**2**	**224**	**28**	**6**	**8**	**8**	**276**	**296.2**
TOTAL	**0**	**0**	**881**	**86**	**24**	**83**	**3**	**1077**	**1199.9**	**0**	**1**	**148**	**32**	**10**	**51**	**0**	**242**	**312.7**	**0**	**3**	**445**	**94**	**19**	**20**	**22**	**603**	**658.7**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: M1 J23A Access

	To Donington Services Access									To A453 (W)									To A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	16	6	3	5	0	**30**	**38.0**	0	0	60	14	2	6	0	**82**	**90.8**	0	0	97	28	7	27	2	**161**	**201.6**
07:15 - 07:30	0	0	13	6	4	5	0	**28**	**36.5**	0	0	53	17	3	1	0	**74**	**76.8**	0	0	172	29	8	19	0	**228**	**256.7**
07:30 - 07:45	0	0	11	7	2	7	1	**28**	**39.1**	0	0	89	10	2	7	0	**108**	**118.1**	0	0	184	38	10	23	2	**257**	**293.9**
07:45 - 08:00	0	0	21	11	2	3	0	**37**	**41.9**	0	0	121	12	2	2	0	**137**	**140.6**	0	1	199	28	9	22	0	**259**	**291.5**
Hourly Total	**0**	**0**	**61**	**30**	**11**	**20**	**1**	**123**	**155.5**	**0**	**0**	**323**	**53**	**9**	**16**	**0**	**401**	**426.3**	**0**	**1**	**652**	**123**	**34**	**91**	**4**	**905**	**1043.7**
08:00 - 08:15	0	0	19	3	2	3	0	**27**	**31.9**	0	0	89	12	3	3	0	**107**	**112.4**	0	0	152	29	8	13	0	**202**	**222.9**
08:15 - 08:30	0	0	17	13	4	8	0	**42**	**54.4**	0	0	107	8	1	7	0	**123**	**132.6**	0	0	163	34	15	22	0	**234**	**270.1**
08:30 - 08:45	0	0	20	7	2	7	0	**36**	**46.1**	0	0	85	13	6	4	1	**109**	**118.2**	0	0	102	15	8	25	1	**151**	**188.5**
08:45 - 09:00	0	0	22	5	0	6	0	**33**	**40.8**	0	0	90	6	3	4	0	**103**	**109.7**	0	0	106	21	10	15	0	**152**	**176.5**
Hourly Total	**0**	**0**	**78**	**28**	**8**	**24**	**0**	**138**	**173.2**	**0**	**0**	**371**	**39**	**13**	**18**	**1**	**442**	**472.9**	**0**	**0**	**523**	**99**	**41**	**75**	**1**	**739**	**858.0**
09:00 - 09:15	0	0	24	8	3	9	0	**44**	**57.2**	0	0	69	8	5	4	0	**86**	**93.7**	0	0	108	18	8	19	0	**153**	**181.7**
09:15 - 09:30	0	0	19	7	1	9	0	**36**	**48.2**	0	0	40	8	4	5	1	**58**	**67.5**	0	0	67	20	6	19	0	**112**	**139.7**
09:30 - 09:45	0	0	22	6	2	10	0	**40**	**54.0**	0	0	31	3	6	5	0	**45**	**54.5**	0	0	74	17	7	9	1	**108**	**124.2**
09:45 - 10:00	0	0	16	6	2	6	0	**30**	**38.8**	0	0	30	11	1	6	0	**48**	**56.3**	0	0	56	15	9	16	0	**96**	**121.3**
Hourly Total	**0**	**0**	**81**	**27**	**8**	**34**	**0**	**150**	**198.2**	**0**	**0**	**170**	**30**	**16**	**20**	**1**	**237**	**272.0**	**0**	**0**	**305**	**70**	**30**	**63**	**1**	**469**	**566.9**
TOTAL	**0**	**0**	**220**	**85**	**27**	**78**	**1**	**411**	**526.9**	**0**	**0**	**864**	**122**	**38**	**54**	**2**	**1080**	**1171.2**	**0**	**1**	**1480**	**292**	**105**	**229**	**6**	**2113**	**2468.6**
16:00 - 16:15	0	0	27	5	2	9	0	**43**	**55.7**	0	0	79	5	4	6	1	**95**	**105.8**	0	0	81	35	9	13	0	**138**	**159.4**
16:15 - 16:30	0	0	20	5	2	3	0	**30**	**34.9**	0	0	59	9	4	8	0	**80**	**92.4**	0	0	97	36	2	16	2	**153**	**176.8**
16:30 - 16:45	0	0	25	6	1	5	0	**37**	**44.0**	0	0	85	17	1	3	0	**106**	**110.4**	0	1	110	27	5	16	0	**159**	**181.7**
16:45 - 17:00	0	0	26	13	2	4	0	**45**	**51.2**	0	0	101	16	2	4	0	**123**	**129.2**	0	1	101	23	4	0	0	**129**	**130.4**
Hourly Total	**0**	**0**	**98**	**29**	**7**	**21**	**0**	**155**	**185.8**	**0**	**0**	**324**	**47**	**11**	**21**	**1**	**404**	**437.8**	**0**	**2**	**389**	**121**	**20**	**45**	**2**	**579**	**648.3**
17:00 - 17:15	0	0	19	6	4	7	0	**36**	**47.1**	0	1	105	7	2	1	0	**116**	**117.7**	0	0	141	19	6	18	0	**184**	**210.4**
17:15 - 17:30	0	0	26	5	0	4	0	**35**	**40.2**	0	0	84	5	2	7	0	**98**	**108.1**	0	0	194	20	7	17	0	**238**	**263.6**
17:30 - 17:45	0	0	17	12	0	6	0	**35**	**42.8**	0	0	95	6	2	0	0	**103**	**104.0**	0	0	174	15	2	11	0	**202**	**217.3**
17:45 - 18:00	0	0	24	2	3	3	0	**32**	**37.4**	0	0	88	11	3	1	0	**103**	**105.8**	0	0	130	7	0	9	1	**147**	**159.7**
Hourly Total	**0**	**0**	**86**	**25**	**7**	**20**	**0**	**138**	**167.5**	**0**	**1**	**372**	**29**	**9**	**9**	**0**	**420**	**435.6**	**0**	**0**	**639**	**61**	**15**	**55**	**1**	**771**	**851.0**
18:00 - 18:15	0	0	23	2	1	6	0	**32**	**40.3**	0	0	60	3	1	0	0	**64**	**64.5**	0	0	105	3	6	14	0	**128**	**149.2**
18:15 - 18:30	0	0	12	4	0	2	0	**18**	**20.6**	0	0	38	1	1	4	0	**44**	**49.7**	0	0	76	6	1	7	0	**90**	**99.6**
18:30 - 18:45	0	0	3	1	1	0	0	**5**	**5.5**	0	0	25	4	1	2	0	**32**	**35.1**	0	0	26	1	1	4	0	**32**	**37.7**
18:45 - 19:00	0	0	32	7	2	4	0	**45**	**51.2**	0	0	39	3	1	6	0	**49**	**57.3**	0	0	93	8	3	9	0	**113**	**126.2**
Hourly Total	**0**	**0**	**70**	**14**	**4**	**12**	**0**	**100**	**117.6**	**0**	**0**	**162**	**11**	**4**	**12**	**0**	**189**	**206.6**	**0**	**0**	**300**	**18**	**11**	**34**	**0**	**363**	**412.7**
TOTAL	**0**	**0**	**254**	**68**	**18**	**53**	**0**	**393**	**470.9**	**0**	**1**	**858**	**87**	**24**	**42**	**1**	**1013**	**1080.0**	**0**	**2**	**1328**	**200**	**46**	**134**	**3**	**1713**	**1912.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: Donington Services Access

	To A453 (W)									To A453 (N)									To M1 J23A Access								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	9	1	2	0	0	12	13.0	0	0	8	10	3	8	0	29	40.9	0	0	8	3	1	7	0	19	28.6
07:15 - 07:30	0	0	7	1	2	0	0	10	11.0	0	0	10	8	3	2	0	23	27.1	0	0	9	4	4	6	0	23	32.8
07:30 - 07:45	0	0	7	3	0	0	0	10	10.0	0	0	7	8	2	10	0	27	41.0	0	0	6	2	2	3	0	13	17.9
07:45 - 08:00	0	0	9	1	2	1	0	13	15.3	0	0	8	5	5	14	0	32	52.7	0	0	14	5	0	5	0	24	30.5
Hourly Total	**0**	**0**	**32**	**6**	**6**	**1**	**0**	**45**	**49.3**	**0**	**0**	**33**	**31**	**13**	**34**	**0**	**111**	**161.7**	**0**	**0**	**37**	**14**	**7**	**21**	**0**	**79**	**109.8**
08:00 - 08:15	0	0	12	2	1	0	0	15	15.5	0	0	1	4	3	5	0	13	21.0	0	0	24	5	2	4	0	35	41.2
08:15 - 08:30	0	0	11	5	1	0	0	17	17.5	0	0	4	4	2	7	0	17	27.1	0	0	23	10	1	6	0	40	48.3
08:30 - 08:45	0	0	13	1	2	0	0	16	17.0	0	0	5	7	3	3	0	18	23.4	0	0	21	6	2	6	0	35	43.8
08:45 - 09:00	0	0	14	2	2	0	0	18	19.0	0	0	0	2	1	3	1	7	12.4	0	0	19	3	3	3	0	28	33.4
Hourly Total	**0**	**0**	**50**	**10**	**6**	**0**	**0**	**66**	**69.0**	**0**	**0**	**10**	**17**	**9**	**18**	**1**	**55**	**83.9**	**0**	**0**	**87**	**24**	**8**	**19**	**0**	**138**	**166.7**
09:00 - 09:15	0	0	6	3	0	0	0	9	9.0	0	0	7	6	1	7	0	21	30.6	0	0	27	3	2	5	0	37	44.5
09:15 - 09:30	0	0	10	2	1	1	0	14	15.8	0	0	20	5	3	6	0	34	43.3	0	0	16	7	2	4	0	29	35.2
09:30 - 09:45	0	0	12	2	1	0	0	15	15.5	0	0	10	2	0	6	0	18	25.8	0	0	20	5	4	3	0	32	37.9
09:45 - 10:00	0	0	8	2	1	0	1	12	13.5	0	0	13	8	0	11	0	32	46.3	0	0	12	4	1	6	0	23	31.3
Hourly Total	**0**	**0**	**36**	**9**	**3**	**1**	**1**	**50**	**53.8**	**0**	**0**	**50**	**21**	**4**	**30**	**0**	**105**	**146.0**	**0**	**0**	**75**	**19**	**9**	**18**	**0**	**121**	**148.9**
TOTAL	**0**	**0**	**118**	**25**	**15**	**2**	**1**	**161**	**172.1**	**0**	**0**	**93**	**69**	**26**	**82**	**1**	**271**	**391.6**	**0**	**0**	**199**	**57**	**24**	**58**	**0**	**338**	**425.4**
16:00 - 16:15	0	0	13	4	1	1	0	19	20.8	0	0	23	2	0	5	0	30	36.5	0	0	18	5	2	5	0	30	37.5
16:15 - 16:30	0	0	7	1	1	1	0	10	11.8	0	0	15	4	2	4	0	25	31.2	0	0	21	3	1	6	0	31	39.3
16:30 - 16:45	0	0	15	2	0	0	0	17	17.0	0	1	25	1	5	7	0	39	50.0	0	0	20	5	3	5	0	33	41.0
16:45 - 17:00	0	0	13	1	0	0	0	14	14.0	0	0	10	2	2	4	0	18	24.2	0	0	22	5	0	3	0	30	33.9
Hourly Total	**0**	**0**	**48**	**8**	**2**	**2**	**0**	**60**	**63.6**	**0**	**1**	**73**	**9**	**9**	**20**	**0**	**112**	**141.9**	**0**	**0**	**81**	**18**	**6**	**19**	**0**	**124**	**151.7**
17:00 - 17:15	0	0	9	3	0	0	0	12	12.0	0	0	9	7	0	5	0	21	27.5	0	0	31	4	0	2	0	37	39.6
17:15 - 17:30	0	0	8	1	1	0	0	10	10.5	0	0	21	1	2	1	0	25	27.3	0	0	19	8	2	4	0	33	39.2
17:30 - 17:45	0	0	13	3	0	0	0	16	16.0	0	0	13	0	0	1	0	14	15.3	0	0	22	2	0	4	0	28	33.2
17:45 - 18:00	0	0	13	2	0	0	0	15	15.0	0	0	17	8	0	3	0	28	31.9	0	0	21	2	0	3	0	26	29.9
Hourly Total	**0**	**0**	**43**	**9**	**1**	**0**	**0**	**53**	**53.5**	**0**	**0**	**60**	**16**	**2**	**10**	**0**	**88**	**102.0**	**0**	**0**	**93**	**16**	**2**	**13**	**0**	**124**	**141.9**
18:00 - 18:15	0	0	13	2	1	1	0	17	18.8	0	0	26	4	0	3	0	33	36.9	0	0	12	2	1	5	0	20	27.0
18:15 - 18:30	0	0	12	2	1	1	0	16	17.8	0	0	15	2	0	2	0	19	21.6	0	0	11	3	3	4	0	21	27.7
18:30 - 18:45	0	1	9	0	0	1	0	11	11.7	0	0	17	2	0	4	0	23	28.2	0	0	9	0	0	1	0	10	11.3
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	14	2	0	0	0	16	16.0	0	0	13	1	1	3	0	18	22.4
Hourly Total	**0**	**1**	**44**	**4**	**2**	**3**	**0**	**54**	**58.3**	**0**	**0**	**72**	**10**	**0**	**9**	**0**	**91**	**102.7**	**0**	**0**	**45**	**6**	**5**	**13**	**0**	**69**	**88.4**
TOTAL	**0**	**1**	**135**	**21**	**5**	**5**	**0**	**167**	**175.4**	**0**	**1**	**205**	**35**	**11**	**39**	**0**	**291**	**346.6**	**0**	**0**	**219**	**40**	**13**	**45**	**0**	**317**	**382.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: A453 West

	To A453 (N)									To M1 J23A Access									To Donington Services Access								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	46	10	0	6	3	65	75.8	0	0	29	1	2	4	0	36	42.2	0	0	12	1	0	0	0	13	13.0
07:15 - 07:30	0	0	85	16	2	6	0	109	117.8	0	1	25	3	5	2	0	36	40.5	0	1	5	2	1	0	0	9	8.9
07:30 - 07:45	0	1	81	11	5	8	3	109	124.3	0	0	32	10	4	6	1	53	63.8	0	0	4	0	0	0	0	4	4.0
07:45 - 08:00	0	0	77	12	0	2	0	91	93.6	0	0	35	5	4	3	2	49	56.9	0	0	7	0	0	0	0	7	7.0
Hourly Total	**0**	**1**	**289**	**49**	**7**	**22**	**6**	**374**	**411.5**	**0**	**1**	**121**	**19**	**15**	**15**	**3**	**174**	**203.4**	**0**	**1**	**28**	**3**	**1**	**0**	**0**	**33**	**32.9**
08:00 - 08:15	0	0	76	12	4	6	2	100	111.8	0	0	48	16	1	5	1	71	79.0	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	81	17	3	5	2	108	118.0	0	0	48	19	1	8	0	76	86.9	0	0	7	0	2	0	0	9	10.0
08:30 - 08:45	0	0	60	15	4	7	2	88	101.1	0	0	30	8	3	5	1	47	56.0	0	0	6	1	0	0	0	7	7.0
08:45 - 09:00	0	0	48	7	3	8	3	69	83.9	0	0	24	3	3	7	0	37	47.6	0	0	3	2	0	1	0	6	7.3
Hourly Total	**0**	**0**	**265**	**51**	**14**	**26**	**9**	**365**	**414.8**	**0**	**0**	**150**	**46**	**8**	**25**	**2**	**231**	**269.5**	**0**	**0**	**18**	**4**	**2**	**1**	**0**	**25**	**27.3**
09:00 - 09:15	0	0	26	3	5	8	2	44	58.9	0	0	20	4	4	1	0	29	32.3	0	0	7	1	1	0	0	9	9.5
09:15 - 09:30	0	1	25	9	6	2	4	47	56.0	0	0	21	4	0	4	0	29	34.2	0	0	4	4	0	0	0	8	8.0
09:30 - 09:45	0	0	24	11	7	1	2	45	51.8	0	0	12	3	1	3	0	19	23.4	0	0	7	3	0	1	0	11	12.3
09:45 - 10:00	0	0	31	8	2	4	4	49	59.2	0	0	9	5	0	2	0	16	18.6	0	0	5	0	1	1	0	7	8.8
Hourly Total	**0**	**1**	**106**	**31**	**20**	**15**	**12**	**185**	**225.9**	**0**	**0**	**62**	**16**	**5**	**10**	**0**	**93**	**108.5**	**0**	**0**	**23**	**8**	**2**	**2**	**0**	**35**	**38.6**
TOTAL	**0**	**2**	**660**	**131**	**41**	**63**	**27**	**924**	**1052.2**	**0**	**1**	**333**	**81**	**28**	**50**	**5**	**498**	**581.4**	**0**	**1**	**69**	**15**	**5**	**3**	**0**	**93**	**98.8**
16:00 - 16:15	0	0	161	12	2	3	3	181	188.9	0	0	66	11	2	8	1	88	100.4	0	0	4	2	2	0	0	8	9.0
16:15 - 16:30	0	0	136	12	3	2	1	154	159.1	0	0	25	7	3	2	0	37	41.1	0	0	8	2	0	0	0	10	10.0
16:30 - 16:45	0	0	126	9	0	2	1	138	141.6	0	0	68	15	0	2	0	85	87.6	0	0	9	2	2	0	0	13	14.0
16:45 - 17:00	0	0	133	16	0	1	3	153	157.3	0	0	48	1	1	2	1	53	57.1	0	0	10	1	0	0	0	11	11.0
Hourly Total	**0**	**0**	**556**	**49**	**5**	**8**	**8**	**626**	**646.9**	**0**	**0**	**207**	**34**	**6**	**14**	**2**	**263**	**286.2**	**0**	**0**	**31**	**7**	**4**	**0**	**0**	**42**	**44.0**
17:00 - 17:15	0	0	132	8	2	4	3	149	158.2	0	0	97	4	0	0	0	101	101.0	0	0	11	2	1	0	0	14	14.5
17:15 - 17:30	0	0	113	2	2	1	1	119	122.3	0	0	36	9	1	3	0	49	53.4	0	0	12	0	0	1	0	13	14.3
17:30 - 17:45	0	0	154	8	0	2	2	166	170.6	0	0	30	6	2	3	0	41	45.9	0	0	12	2	2	0	0	16	17.0
17:45 - 18:00	0	0	143	8	1	1	0	153	154.8	0	0	51	6	1	4	0	62	67.7	0	0	7	1	0	0	0	8	8.0
Hourly Total	**0**	**0**	**542**	**26**	**5**	**8**	**6**	**587**	**605.9**	**0**	**0**	**214**	**25**	**4**	**10**	**0**	**253**	**268.0**	**0**	**0**	**42**	**5**	**3**	**1**	**0**	**51**	**53.8**
18:00 - 18:15	0	0	88	7	0	0	3	98	101.0	0	0	41	3	1	2	0	47	50.1	0	0	8	1	0	0	0	9	9.0
18:15 - 18:30	0	0	83	7	1	1	2	94	97.8	0	0	28	4	1	1	0	34	35.8	0	0	8	0	0	0	0	8	8.0
18:30 - 18:45	0	1	74	4	0	7	1	87	96.5	0	0	16	2	1	2	0	21	24.1	0	0	3	0	1	0	0	4	4.5
18:45 - 19:00	0	0	57	3	2	2	3	67	73.6	0	0	16	2	0	3	0	21	24.9	0	0	5	1	0	0	0	6	6.0
Hourly Total	**0**	**1**	**302**	**21**	**3**	**10**	**9**	**346**	**368.9**	**0**	**0**	**101**	**11**	**3**	**8**	**0**	**123**	**134.9**	**0**	**0**	**24**	**2**	**1**	**0**	**0**	**27**	**27.5**
TOTAL	**0**	**1**	**1400**	**96**	**13**	**26**	**23**	**1559**	**1621.7**	**0**	**0**	**522**	**70**	**13**	**32**	**2**	**639**	**689.1**	**0**	**0**	**97**	**14**	**8**	**1**	**0**	**120**	**125.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 3 – A453/EMGP1 Gyratory Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 North

	Left to A6 Kegworth Bypass									Ahead to A453 (S)										Right to Wilders Way										U-Turn									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	4	0	1	0	7	8.3	0	0	70	10	4	7	1	92	104.1	0	0	90	5	3	7	0	105	115.6	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	15	2	2	1	0	20	22.3	0	0	66	12	2	7	0	87	97.1	0	0	107	5	1	7	1	121	131.6	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	0	5	2	2	2	0	11	14.6	0	0	65	8	0	6	0	79	86.8	0	1	106	5	2	5	0	119	125.9	0	0	1	1	0	0	0	2	2.0
07:45 - 08:00	0	0	8	0	2	6	0	16	24.8	0	0	88	12	1	4	0	105	110.7	0	0	83	2	1	7	1	94	104.6	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**30**	**8**	**6**	**10**	**0**	**54**	**70.0**	**0**	**0**	**289**	**42**	**7**	**24**	**1**	**363**	**398.7**	**0**	**1**	**386**	**17**	**7**	**26**	**2**	**439**	**477.7**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**
08:00 - 08:15	0	0	9	2	5	3	0	19	25.4	0	0	95	7	1	5	0	108	115.0	0	0	42	11	5	5	0	63	72.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	6	1	1	0	0	8	8.5	0	0	91	4	3	3	0	101	106.4	0	0	35	4	3	5	0	47	55.0	0	0	3	0	1	0	0	4	4.5
08:30 - 08:45	0	0	7	1	1	1	0	10	11.8	0	0	107	7	4	0	0	118	120.0	0	1	28	9	1	10	1	50	63.9	0	0	0	0	0	1	0	1	2.3
08:45 - 09:00	0	1	5	3	4	5	0	18	25.9	0	0	87	10	4	5	0	106	114.5	0	0	40	5	1	3	1	50	55.4	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**1**	**27**	**7**	**11**	**9**	**0**	**55**	**71.6**	**0**	**0**	**380**	**28**	**12**	**13**	**0**	**433**	**455.9**	**0**	**1**	**145**	**29**	**10**	**23**	**2**	**210**	**246.3**	**0**	**0**	**5**	**0**	**1**	**1**	**0**	**7**	**8.8**
09:00 - 09:15	0	0	3	1	1	5	0	10	17.0	0	0	87	4	6	5	0	102	111.5	0	0	48	9	0	6	0	63	70.8	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	6	1	0	0	0	7	7.0	0	0	74	6	3	14	0	97	116.7	0	0	52	11	3	5	0	71	79.0	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	4	3	3	4	0	14	20.7	0	0	56	3	6	8	0	73	86.4	0	0	55	15	0	9	2	81	94.7	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	2	2	2	2	0	8	11.6	0	0	54	6	2	5	0	67	74.5	0	0	66	20	1	9	0	96	108.2	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**15**	**7**	**6**	**11**	**0**	**39**	**56.3**	**0**	**0**	**271**	**19**	**17**	**32**	**0**	**339**	**389.1**	**0**	**0**	**221**	**55**	**4**	**29**	**2**	**311**	**352.7**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**
TOTAL	**0**	**1**	**72**	**22**	**23**	**30**	**0**	**148**	**197.9**	**0**	**0**	**940**	**89**	**36**	**69**	**1**	**1135**	**1243.7**	**0**	**2**	**752**	**101**	**21**	**78**	**6**	**960**	**1076.7**	**0**	**0**	**12**	**2**	**1**	**1**	**0**	**16**	**17.8**
16:00 - 16:15	0	0	9	2	1	1	0	13	14.8	0	0	54	11	2	6	1	74	83.8	0	0	10	5	1	3	0	19	23.4	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	19	3	2	1	0	25	27.3	0	0	45	14	3	3	0	65	70.4	0	0	10	9	0	4	1	24	30.2	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	15	4	1	0	0	20	20.5	0	0	41	8	3	11	0	63	78.8	0	0	16	3	0	4	0	23	28.2	0	0	2	0	0	0	0	2	2.0
16:45 - 17:00	0	1	15	0	1	0	0	17	16.9	0	0	40	6	4	3	0	53	58.9	0	0	15	7	0	6	1	29	37.8	0	0	3	1	0	0	0	4	4.0
Hourly Total	**0**	**1**	**58**	**9**	**5**	**2**	**0**	**75**	**79.5**	**0**	**0**	**180**	**39**	**12**	**23**	**1**	**255**	**291.9**	**0**	**0**	**51**	**24**	**1**	**17**	**2**	**95**	**119.6**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**7.0**
17:00 - 17:15	0	0	13	2	0	0	0	15	15.0	0	0	45	8	4	8	1	66	79.4	0	0	19	13	0	4	0	36	41.2	0	0	1	0	0	0	0	1	1.0
17:15 - 17:30	0	0	22	1	1	1	0	25	26.8	0	1	58	1	3	10	0	73	86.9	0	1	31	13	0	6	1	52	60.2	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	1	17	0	2	1	0	21	22.7	0	0	73	4	3	4	0	84	90.7	0	3	54	11	0	4	0	72	75.4	0	0	2	0	0	0	0	2	2.0
17:45 - 18:00	0	0	11	5	0	0	0	16	16.0	0	0	70	2	3	7	0	82	92.6	0	0	66	14	0	3	0	83	86.9	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**63**	**8**	**3**	**2**	**0**	**77**	**80.5**	**0**	**1**	**246**	**15**	**13**	**29**	**1**	**305**	**349.6**	**0**	**4**	**170**	**51**	**0**	**17**	**1**	**243**	**263.7**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**
18:00 - 18:15	0	0	7	0	0	2	0	9	11.6	0	0	42	3	2	7	0	54	64.1	0	1	103	10	0	3	0	117	120.3	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	0	12	3	0	0	0	15	15.0	0	1	59	3	0	4	0	67	71.6	0	1	103	14	0	2	1	121	124.0	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	10	0	1	1	0	12	13.8	0	0	84	0	4	4	0	92	99.2	0	0	54	12	0	4	0	70	75.2	0	0	0	0	0	1	0	1	2.3
18:45 - 19:00	0	0	10	0	0	2	0	12	14.6	0	0	80	1	1	4	0	86	91.7	0	0	43	9	0	4	1	57	63.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**39**	**3**	**1**	**5**	**0**	**48**	**55.0**	**0**	**1**	**265**	**7**	**7**	**19**	**0**	**299**	**326.6**	**0**	**2**	**303**	**45**	**0**	**13**	**2**	**365**	**382.7**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**4**	**5.3**
TOTAL	**0**	**2**	**160**	**20**	**9**	**9**	**0**	**200**	**215.0**	**0**	**2**	**691**	**61**	**32**	**71**	**2**	**859**	**968.1**	**0**	**6**	**524**	**120**	**1**	**47**	**5**	**703**	**766.0**	**0**	**0**	**15**	**1**	**0**	**1**	**0**	**17**	**18.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A6 Kegworth Bypass

	Left to A453 (S)									Ahead to Wilders Way									Right to A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	2	15	3	0	0	0	20	18.8	0	1	87	11	10	2	0	111	118.0	0	0	74	10	8	3	2	97	106.9
07:15 - 07:30	0	0	26	2	1	0	0	29	29.5	0	1	101	16	4	1	1	124	127.7	0	1	65	18	5	0	0	89	90.9
07:30 - 07:45	0	0	29	3	1	0	1	34	35.5	0	0	76	10	2	0	2	90	93.0	0	0	61	10	1	0	0	72	72.5
07:45 - 08:00	0	0	29	5	0	1	0	35	36.3	0	0	109	21	3	3	1	137	143.4	0	0	92	21	4	2	0	119	123.6
Hourly Total	**0**	**2**	**99**	**13**	**2**	**1**	**1**	**118**	**120.1**	**0**	**2**	**373**	**58**	**19**	**6**	**4**	**462**	**482.1**	**0**	**1**	**292**	**59**	**18**	**5**	**2**	**377**	**393.9**
08:00 - 08:15	0	0	35	1	0	0	0	36	36.0	1	0	74	15	3	1	1	95	98.0	0	0	73	13	3	1	0	90	92.8
08:15 - 08:30	0	0	30	2	2	2	1	37	41.6	0	3	69	19	2	1	0	94	94.5	0	3	66	16	1	2	0	88	89.3
08:30 - 08:45	0	1	41	7	1	3	0	53	56.8	0	1	46	14	3	1	1	66	69.2	0	1	43	12	2	2	0	60	63.0
08:45 - 09:00	0	0	31	0	4	0	0	35	37.0	0	0	54	11	6	3	0	74	80.9	0	0	51	10	6	3	0	70	76.9
Hourly Total	**0**	**1**	**137**	**10**	**7**	**5**	**1**	**161**	**171.4**	**1**	**4**	**243**	**59**	**14**	**6**	**2**	**329**	**342.6**	**0**	**4**	**233**	**51**	**12**	**8**	**0**	**308**	**322.0**
09:00 - 09:15	0	0	24	5	0	1	0	30	31.3	0	0	61	13	6	3	3	86	95.9	0	0	54	12	7	3	1	77	85.4
09:15 - 09:30	0	0	17	4	1	0	0	22	22.5	0	0	34	12	3	4	1	54	61.7	0	0	32	12	4	4	0	52	59.2
09:30 - 09:45	0	0	17	5	0	1	0	23	24.3	0	0	30	12	1	2	0	45	48.1	0	0	28	9	1	1	0	39	40.8
09:45 - 10:00	0	0	9	4	0	1	1	15	17.3	0	0	37	19	3	3	0	62	67.4	0	0	26	16	4	3	0	49	54.9
Hourly Total	**0**	**0**	**67**	**18**	**1**	**3**	**1**	**90**	**95.4**	**0**	**0**	**162**	**56**	**13**	**12**	**4**	**247**	**273.1**	**0**	**0**	**140**	**49**	**16**	**11**	**1**	**217**	**240.3**
TOTAL	**0**	**3**	**303**	**41**	**10**	**9**	**3**	**369**	**386.9**	**1**	**6**	**778**	**173**	**46**	**24**	**10**	**1038**	**1097.8**	**0**	**5**	**665**	**159**	**46**	**24**	**3**	**902**	**956.2**
16:00 - 16:15	0	0	20	6	0	0	1	27	28.0	0	0	50	9	7	4	0	70	78.7	0	0	47	13	7	4	0	71	79.7
16:15 - 16:30	0	0	16	5	2	0	0	23	24.0	0	0	77	17	2	5	1	102	110.5	0	1	67	16	2	5	0	91	97.9
16:30 - 16:45	0	0	28	9	0	1	1	39	41.3	0	0	74	20	1	1	2	98	101.8	0	0	76	21	1	1	0	99	100.8
16:45 - 17:00	0	0	17	4	0	0	0	21	21.0	0	0	85	15	2	0	1	103	105.0	0	0	88	16	1	1	0	106	107.8
Hourly Total	**0**	**0**	**81**	**24**	**2**	**1**	**2**	**110**	**114.3**	**0**	**0**	**286**	**61**	**12**	**10**	**4**	**373**	**396.0**	**0**	**1**	**278**	**66**	**11**	**11**	**0**	**367**	**386.2**
17:00 - 17:15	0	0	25	4	2	0	0	31	32.0	0	0	80	13	2	4	1	100	107.2	0	0	76	16	2	2	0	96	99.6
17:15 - 17:30	0	0	33	3	1	0	0	37	37.5	0	0	94	8	2	0	0	104	105.0	0	0	88	9	2	0	0	99	100.0
17:30 - 17:45	0	0	28	3	1	1	0	33	34.8	0	0	90	15	2	0	1	108	110.0	0	1	87	16	2	0	0	106	106.4
17:45 - 18:00	0	0	26	2	3	0	0	31	32.5	0	0	81	6	2	0	1	90	92.0	0	0	81	6	1	0	0	88	88.5
Hourly Total	**0**	**0**	**112**	**12**	**7**	**1**	**0**	**132**	**136.8**	**0**	**0**	**345**	**42**	**8**	**4**	**3**	**402**	**414.2**	**0**	**1**	**332**	**47**	**7**	**2**	**0**	**389**	**394.5**
18:00 - 18:15	0	0	24	4	1	0	0	29	29.5	0	0	71	2	1	1	0	75	76.8	0	0	55	4	1	1	0	61	62.8
18:15 - 18:30	0	0	14	3	0	0	0	17	17.0	0	1	55	6	1	0	2	65	66.9	0	0	45	8	1	0	0	54	54.5
18:30 - 18:45	0	0	24	2	0	0	1	27	28.0	0	0	47	7	0	0	1	55	56.0	0	0	37	6	0	0	0	43	43.0
18:45 - 19:00	0	0	14	3	0	1	0	18	19.3	0	1	30	2	0	0	0	33	32.4	0	1	24	4	0	0	0	29	28.4
Hourly Total	**0**	**0**	**76**	**12**	**1**	**1**	**1**	**91**	**93.8**	**0**	**2**	**203**	**17**	**2**	**1**	**3**	**228**	**232.1**	**0**	**1**	**161**	**22**	**2**	**1**	**0**	**187**	**188.7**
TOTAL	**0**	**0**	**269**	**48**	**10**	**3**	**3**	**333**	**344.9**	**0**	**2**	**834**	**120**	**22**	**15**	**10**	**1003**	**1042.3**	**0**	**3**	**771**	**135**	**20**	**14**	**0**	**943**	**969.4**

PCU Factors:	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Rijkin Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 South

	Left to Wilders Way									Ahead to A453 (N)									Right to A6 Kegworth Bypass									U-Turn								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	1	3	5	2	47	57.0	0	0	102	22	5	8	0	137	149.9	0	0	13	2	1	1	0	17	18.8	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	102	3	3	11	1	120	136.8	0	0	143	24	4	15	0	186	207.5	0	0	17	11	1	1	1	31	33.8	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	66	2	1	7	3	79	91.6	0	2	162	35	5	19	1	224	251.0	0	0	21	6	1	1	0	29	30.8	0	0	2	0	0	0	0	2	2.0
07:45 - 08:00	0	0	57	2	1	9	1	70	83.2	0	0	184	43	8	20	0	255	285.0	0	0	26	10	1	0	1	38	39.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**261**	**8**	**8**	**32**	**7**	**316**	**368.6**	**0**	**2**	**591**	**124**	**22**	**62**	**1**	**802**	**893.4**	**0**	**0**	**77**	**29**	**4**	**3**	**2**	**115**	**122.9**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**
08:00 - 08:15	0	0	25	4	1	4	1	35	41.7	0	0	215	40	9	2	1	267	275.1	0	0	24	5	3	0	0	32	33.5	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	15	2	3	12	3	35	55.1	0	0	191	49	9	18	1	268	296.9	0	0	17	11	0	0	0	28	28.0	0	0	2	0	0	0	0	2	2.0
08:30 - 08:45	0	0	16	2	1	11	1	31	46.8	0	1	143	30	8	31	0	213	256.7	0	0	17	10	4	2	1	34	39.6	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	27	6	1	9	2	45	59.2	0	0	92	24	6	19	0	141	168.7	0	0	23	2	0	0	0	25	25.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**83**	**14**	**6**	**36**	**7**	**146**	**202.8**	**0**	**1**	**641**	**143**	**32**	**70**	**2**	**889**	**997.4**	**0**	**0**	**81**	**28**	**7**	**2**	**1**	**119**	**126.1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**
09:00 - 09:15	0	0	18	3	3	5	2	31	41.0	0	0	86	28	5	25	0	144	179.0	0	0	18	7	1	1	0	27	28.8	0	0	2	0	0	0	0	2	2.0
09:15 - 09:30	0	0	20	6	1	7	1	35	45.6	0	0	88	22	11	19	0	140	170.2	0	0	26	6	0	2	0	34	36.6	0	0	1	0	0	0	0	1	1.0
09:30 - 09:45	0	0	28	12	1	2	3	46	52.1	0	0	81	19	4	21	0	125	154.3	0	0	22	2	3	1	0	28	30.8	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	21	12	2	7	2	44	56.1	0	0	76	17	14	11	0	118	139.3	0	0	7	6	0	1	0	14	15.3	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**87**	**33**	**7**	**21**	**8**	**156**	**194.8**	**0**	**0**	**331**	**86**	**34**	**76**	**0**	**527**	**642.8**	**0**	**0**	**73**	**21**	**4**	**5**	**0**	**103**	**111.5**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**
TOTAL	**0**	**0**	**431**	**55**	**21**	**89**	**22**	**618**	**766.2**	**0**	**3**	**1563**	**353**	**88**	**208**	**3**	**2218**	**2533.6**	**0**	**0**	**231**	**78**	**15**	**10**	**3**	**337**	**360.5**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**11**	**11.0**
16:00 - 16:15	0	0	3	2	1	6	4	16	28.3	0	0	205	50	10	20	0	285	316.0	0	0	26	8	0	0	0	34	34.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	4	3	0	3	1	11	15.9	0	0	153	37	4	15	0	209	230.5	0	0	31	2	2	1	0	36	38.3	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	1	8	0	2	5	1	17	24.9	0	1	198	39	10	15	0	263	286.9	0	0	28	6	2	0	1	37	39.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	1	5	2	14	23.0	0	1	203	38	9	21	0	272	303.2	0	0	35	5	1	1	0	42	43.8	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**21**	**5**	**4**	**19**	**8**	**58**	**92.1**	**0**	**2**	**759**	**164**	**33**	**71**	**0**	**1029**	**1136.6**	**0**	**0**	**120**	**21**	**5**	**2**	**1**	**149**	**155.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	8	0	1	9	2	20	34.2	0	1	243	30	10	23	0	307	341.3	0	0	29	7	1	0	0	37	37.5	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	13	0	3	3	3	22	30.4	0	0	206	19	5	17	1	248	273.6	0	0	46	7	1	0	0	54	54.5	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	0	4	6	1	21	31.8	0	0	211	27	8	11	0	257	275.3	0	0	53	2	0	0	0	55	55.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	18	1	1	5	2	27	36.0	0	0	179	23	2	10	0	214	228.0	0	1	36	1	1	2	0	41	43.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**49**	**1**	**9**	**23**	**8**	**90**	**132.4**	**0**	**1**	**839**	**99**	**25**	**61**	**1**	**1026**	**1118.2**	**0**	**1**	**164**	**17**	**3**	**2**	**0**	**187**	**190.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	34	1	1	2	3	41	47.1	0	1	156	23	3	14	1	198	218.1	0	0	30	5	0	1	1	37	39.3	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	1	51	0	0	2	0	54	56.0	0	0	154	9	6	8	0	177	190.4	0	0	24	3	1	0	0	28	28.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	28	0	0	3	1	32	36.9	0	0	91	6	6	13	0	116	135.9	0	0	23	7	1	0	0	31	31.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	24	0	0	8	1	33	44.4	0	0	98	10	4	7	0	119	130.1	0	1	27	2	0	1	0	31	31.7	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**137**	**1**	**1**	**15**	**5**	**160**	**184.4**	**0**	**1**	**499**	**48**	**19**	**42**	**1**	**610**	**674.5**	**0**	**1**	**104**	**17**	**2**	**2**	**1**	**127**	**131.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**2**	**207**	**7**	**14**	**57**	**21**	**308**	**408.9**	**0**	**4**	**2097**	**311**	**77**	**174**	**2**	**2665**	**2929.3**	**0**	**2**	**388**	**55**	**10**	**6**	**2**	**463**	**476.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.3
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: Wilders Way

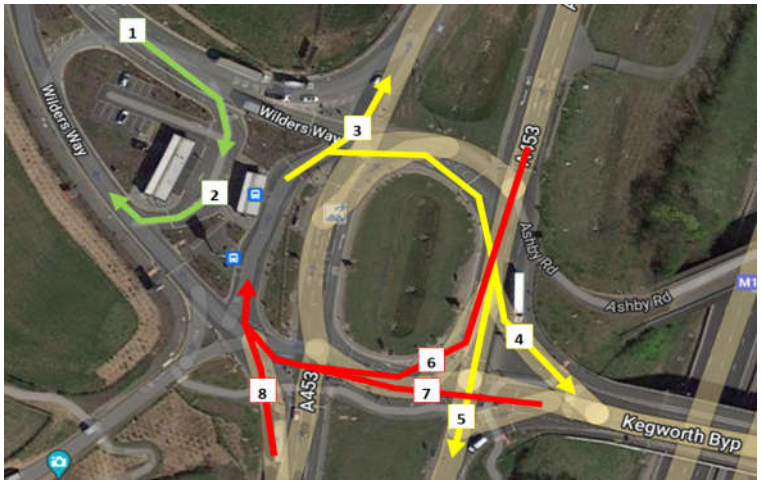
	Left to A453 (N)									Ahead to A6 Kegworth Bypass									Right to A453 (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	30	0	2	5	0	37	44.5	0	0	2	0	0	0	0	2	2.0	0	1	12	1	0	7	0	21	29.5
07:15 - 07:30	0	0	8	1	1	5	0	15	22.0	0	0	2	1	1	1	0	5	6.8	0	0	4	1	0	9	0	14	25.7
07:30 - 07:45	0	0	18	1	1	9	0	29	41.2	0	0	2	0	0	2	0	4	6.6	0	0	9	0	3	5	0	17	25.0
07:45 - 08:00	0	0	22	2	0	5	0	29	35.5	0	0	0	0	0	0	0	0	0.0	0	0	13	1	2	6	0	22	30.8
Hourly Total	**0**	**0**	**78**	**4**	**4**	**24**	**0**	**110**	**143.2**	**0**	**0**	**6**	**1**	**1**	**3**	**0**	**11**	**15.4**	**0**	**1**	**38**	**3**	**5**	**27**	**0**	**74**	**111.0**
08:00 - 08:15	0	0	23	3	1	5	0	32	39.0	0	0	0	0	0	0	0	0	0.0	0	0	11	3	0	5	0	19	25.5
08:15 - 08:30	0	0	11	1	2	3	0	17	21.9	0	0	2	1	0	0	0	3	3.0	0	0	13	1	1	7	0	22	31.6
08:30 - 08:45	0	0	8	3	3	6	0	20	29.3	0	0	1	1	0	0	0	2	2.0	0	0	7	1	1	6	0	15	23.3
08:45 - 09:00	0	0	5	2	0	10	0	17	30.0	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	6	0	10	17.8
Hourly Total	**0**	**0**	**47**	**9**	**6**	**24**	**0**	**86**	**120.2**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**33**	**7**	**2**	**24**	**0**	**66**	**98.2**
09:00 - 09:15	0	0	3	2	0	8	0	13	23.4	0	0	3	0	0	1	0	4	5.3	0	0	2	1	1	6	1	11	20.3
09:15 - 09:30	0	0	7	1	2	6	0	16	24.8	0	0	0	0	0	0	0	0	0.0	0	0	2	2	1	8	0	13	23.9
09:30 - 09:45	0	0	12	2	0	8	0	22	32.4	0	0	0	1	1	1	0	3	4.8	0	0	3	2	0	9	0	14	25.7
09:45 - 10:00	0	0	31	48	2	6	1	88	97.8	0	0	6	1	1	0	0	8	8.5	0	0	6	6	1	7	2	22	33.6
Hourly Total	**0**	**0**	**53**	**53**	**4**	**28**	**1**	**139**	**178.4**	**0**	**0**	**9**	**2**	**2**	**2**	**0**	**15**	**18.6**	**0**	**0**	**13**	**11**	**3**	**30**	**3**	**60**	**103.5**
TOTAL	**0**	**0**	**178**	**66**	**14**	**76**	**1**	**335**	**441.8**	**0**	**0**	**19**	**5**	**3**	**5**	**0**	**32**	**40.0**	**0**	**1**	**84**	**21**	**10**	**81**	**3**	**200**	**312.7**
16:00 - 16:15	0	1	76	9	1	5	0	92	98.4	0	0	8	0	2	0	0	10	11.0	0	0	27	2	3	5	0	37	45.0
16:15 - 16:30	0	1	54	2	2	2	0	61	64.0	0	0	2	1	0	1	0	4	5.3	0	0	21	2	3	3	0	29	34.4
16:30 - 16:45	0	0	65	6	1	1	0	73	74.8	0	0	9	0	0	0	0	9	9.0	0	0	14	5	0	6	0	25	32.8
16:45 - 17:00	0	0	47	3	4	2	0	56	60.6	0	1	1	3	0	0	0	5	4.4	0	0	19	2	1	5	0	27	34.0
Hourly Total	**0**	**2**	**242**	**20**	**8**	**10**	**0**	**282**	**297.8**	**0**	**1**	**20**	**4**	**2**	**1**	**0**	**28**	**29.7**	**0**	**0**	**81**	**11**	**7**	**19**	**0**	**118**	**146.2**
17:00 - 17:15	0	0	40	7	1	5	0	53	60.0	0	0	2	0	0	0	0	2	2.0	0	0	25	2	3	10	1	41	56.5
17:15 - 17:30	0	0	42	8	0	4	0	54	59.2	0	0	4	1	0	1	0	6	7.3	0	1	26	2	2	5	0	36	42.9
17:30 - 17:45	0	0	58	4	0	7	0	69	78.1	0	1	2	1	0	0	0	4	3.4	0	0	21	2	3	7	0	33	43.6
17:45 - 18:00	0	0	33	4	4	4	0	45	52.2	0	0	6	0	1	0	0	7	7.5	0	1	16	4	3	6	0	30	38.7
Hourly Total	**0**	**0**	**173**	**23**	**5**	**20**	**0**	**221**	**249.5**	**0**	**1**	**14**	**2**	**1**	**1**	**0**	**19**	**20.2**	**0**	**2**	**88**	**10**	**11**	**28**	**1**	**140**	**181.7**
18:00 - 18:15	0	0	203	9	1	2	0	215	218.1	0	0	24	1	0	0	0	25	25.0	0	0	74	1	4	6	1	86	96.8
18:15 - 18:30	0	1	59	2	2	2	0	66	69.0	0	0	10	0	0	0	0	10	10.0	0	0	31	2	1	7	0	41	50.6
18:30 - 18:45	0	2	170	3	2	2	0	179	181.4	0	0	24	2	1	0	0	27	27.5	0	0	63	1	1	4	0	69	74.7
18:45 - 19:00	0	0	49	4	1	0	0	54	54.5	0	0	9	1	0	0	0	10	10.0	0	0	13	3	1	1	0	18	19.8
Hourly Total	**0**	**3**	**481**	**18**	**6**	**6**	**0**	**514**	**523.0**	**0**	**0**	**67**	**4**	**1**	**0**	**0**	**72**	**72.5**	**0**	**0**	**181**	**7**	**7**	**18**	**1**	**214**	**241.9**
TOTAL	**0**	**5**	**896**	**61**	**19**	**36**	**0**	**1017**	**1070.3**	**0**	**2**	**101**	**10**	**4**	**2**	**0**	**119**	**122.4**	**0**	**2**	**350**	**28**	**25**	**65**	**2**	**472**	**569.8**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Bus Moves

	Bus Moves							
TIME	Move 1	Move 2	Move 3	Move 4	Move 5	Move 6	Move 7	Move 8
07:00 - 07:15	1	1	0	1	1	0	0	2
07:15 - 07:30	2	3	1	0	3	1	2	1
07:30 - 07:45	1	2	1	1	2	0	2	2
07:45 - 08:00	2	2	0	2	2	1	1	2
Hourly Total	**6**	**8**	**2**	**4**	**8**	**2**	**5**	**7**
08:00 - 08:15	1	1	1	0	1	0	1	1
08:15 - 08:30	2	1	0	1	1	0	0	2
08:30 - 08:45	1	3	0	1	3	1	1	1
08:45 - 09:00	2	0	1	1	0	1	0	2
Hourly Total	**6**	**5**	**2**	**3**	**5**	**2**	**2**	**6**
09:00 - 09:15	1	2	1	1	2	0	2	2
09:15 - 09:30	2	1	0	1	1	0	1	1
09:30 - 09:45	1	2	0	1	2	1	0	3
09:45 - 10:00	2	1	1	1	1	0	0	2
Hourly Total	**6**	**6**	**2**	**4**	**6**	**1**	**3**	**8**
TOTAL	**18**	**19**	**6**	**11**	**19**	**5**	**10**	**21**
16:00 - 16:15	1	2	1	2	2	0	0	3
16:15 - 16:30	2	2	0	1	2	1	1	1
16:30 - 16:45	1	2	1	0	2	0	2	1
16:45 - 17:00	2	1	0	1	1	1	1	2
Hourly Total	**6**	**7**	**2**	**4**	**7**	**2**	**4**	**7**
17:00 - 17:15	1	1	1	1	1	0	1	2
17:15 - 17:30	2	3	1	1	3	1	0	3
17:30 - 17:45	1	1	1	0	1	0	1	1
17:45 - 18:00	2	0	0	1	0	0	1	1
Hourly Total	**6**	**5**	**3**	**3**	**5**	**1**	**3**	**7**
18:00 - 18:15	1	1	0	2	1	0	0	3
18:15 - 18:30	2	3	0	1	3	1	2	1
18:30 - 18:45	1	2	0	1	2	0	1	2
18:45 - 19:00	2	1	1	0	1	1	0	1
Hourly Total	**6**	**7**	**1**	**4**	**7**	**2**	**3**	**7**
TOTAL	**18**	**19**	**6**	**11**	**19**	**5**	**10**	**21**



APPENDIX 4 – M1 Junction 24 Turning Count Results

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: M1 J24 North

	To A453 (N)									To Derby Road										To M1 J24 (S)										To A453 (S)										To A50										To Hilton Hotel Lane									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	138	48	11	9	0	207	223.6	0	0	97	31	8	1	0	137	142.3	0	0	0	0	0	0	0	0	0.0	0	2	94	11	6	12	0	125	142.4	0	0	36	23	2	4	0	65	71.2	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	123	36	9	9	1	178	195.2	0	0	97	34	2	0	0	133	134.0	0	0	0	0	0	0	0	0	0.0	0	1	119	11	9	9	0	149	164.6	0	0	40	29	2	7	0	78	88.1	0	0	1	1	0	0	0	2	2.0
07:30 - 07:45	0	0	152	55	8	5	0	220	230.5	0	0	139	38	7	0	0	184	187.5	0	0	0	0	0	0	0	0	0.0	0	0	110	16	2	8	0	136	147.4	0	0	69	14	2	6	0	91	99.8	0	0	3	1	0	0	0	4	4.0
07:45 - 08:00	0	0	146	37	9	7	0	199	212.6	0	0	79	22	0	1	0	102	103.3	0	0	0	0	0	0	0	0	0.0	0	0	124	28	4	13	0	169	187.9	0	0	62	20	4	6	0	92	101.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**1**	**559**	**176**	**37**	**30**	**1**	**804**	**861.9**	**0**	**0**	**412**	**125**	**17**	**2**	**0**	**556**	**567.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**3**	**447**	**66**	**21**	**42**	**0**	**579**	**642.3**	**0**	**0**	**207**	**86**	**10**	**23**	**0**	**326**	**360.9**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**
08:00 - 08:15	0	3	151	47	5	18	0	224	248.1	0	0	92	25	6	0	0	123	126.0	0	0	0	0	0	0	0	0	0.0	0	0	100	15	6	4	0	125	133.2	0	0	55	16	2	4	0	77	83.2	0	0	3	0	0	0	0	3	3.0
08:15 - 08:30	0	0	196	33	15	13	0	257	281.4	0	0	85	25	7	0	0	117	120.5	0	0	0	0	0	0	0	0	0.0	0	0	88	10	2	12	0	112	128.6	0	0	40	11	3	7	0	61	71.6	0	0	3	1	0	0	0	4	4.0
08:30 - 08:45	0	1	179	42	16	17	0	255	284.5	0	2	78	29	1	0	0	110	109.3	0	0	1	0	0	0	0	1	1.0	0	0	88	7	4	12	0	111	128.6	0	0	35	13	3	5	1	57	66.0	0	0	2	1	0	0	0	3	3.0
08:45 - 09:00	0	0	157	45	11	16	1	230	257.3	0	1	82	29	7	0	0	119	121.9	0	0	0	0	0	0	0	0	0.0	0	0	62	14	2	10	0	88	102.0	0	0	26	15	2	2	0	45	48.6	0	1	2	1	0	0	0	4	3.4
Hourly Total	**0**	**4**	**683**	**167**	**47**	**64**	**1**	**966**	**1071.3**	**0**	**3**	**337**	**108**	**21**	**0**	**0**	**469**	**477.7**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**338**	**46**	**14**	**38**	**0**	**436**	**492.4**	**0**	**0**	**156**	**55**	**10**	**18**	**1**	**240**	**269.4**	**0**	**1**	**10**	**3**	**0**	**0**	**0**	**14**	**13.4**
09:00 - 09:15	0	0	117	34	14	21	0	186	220.3	0	0	59	17	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0.0	0	2	55	6	5	12	0	80	96.9	0	1	36	8	4	8	0	57	68.8	0	0	3	1	0	0	0	4	4.0
09:15 - 09:30	0	1	111	21	8	22	0	163	195.0	0	0	53	21	1	2	0	77	80.1	0	0	1	0	0	0	0	1	1.0	0	0	62	10	7	8	0	87	100.9	0	0	28	11	4	6	1	50	60.8	0	0	2	0	0	0	0	2	2.0
09:30 - 09:45	0	0	79	27	6	16	0	128	151.8	0	0	51	23	0	0	0	74	74.0	0	0	0	1	0	0	0	1	1.0	0	0	56	7	3	13	0	79	97.4	0	0	33	8	3	4	0	48	54.7	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	0	74	29	9	17	0	129	155.6	0	0	52	14	4	0	0	70	72.0	0	0	0	0	0	0	0	0	0.0	0	1	46	9	4	10	0	70	84.4	0	0	27	3	2	6	0	38	46.8	0	0	2	1	0	0	0	3	3.0
Hourly Total	**0**	**1**	**381**	**111**	**37**	**76**	**0**	**606**	**722.7**	**0**	**0**	**215**	**75**	**6**	**2**	**0**	**298**	**303.6**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**2.0**	**0**	**3**	**219**	**32**	**19**	**43**	**0**	**316**	**379.6**	**0**	**1**	**124**	**30**	**13**	**24**	**1**	**193**	**231.1**	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**12**	**12.0**
TOTAL	**0**	**6**	**1623**	**454**	**121**	**170**	**2**	**2376**	**2655.9**	**0**	**3**	**964**	**308**	**44**	**4**	**0**	**1323**	**1348.4**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**3**	**3.0**	**0**	**6**	**1004**	**144**	**54**	**123**	**0**	**1331**	**1514.3**	**0**	**1**	**487**	**171**	**33**	**65**	**2**	**759**	**861.4**	**0**	**1**	**28**	**7**	**0**	**0**	**0**	**36**	**35.4**

16:00 - 16:15	0	0	124	30	8	9	0	171	186.7	0	0	88	17	4	0	0	109	111.0	0	0	0	0	0	0	0	0	0.0	0	0	24	3	2	5	0	34	41.5	0	0	32	9	3	3	0	47	52.4	0	0	2	0	0	0	0	2	2.0
16:15 - 16:30	0	0	163	28	3	6	0	200	209.3	0	0	103	20	0	0	0	123	123.0	0	0	1	0	0	0	0	1	1.0	0	0	29	3	2	4	0	38	44.2	0	0	38	6	3	7	0	54	64.6	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	154	33	2	9	0	198	210.7	0	0	101	19	1	0	0	121	121.5	0	0	0	0	0	0	0	0	0.0	0	0	24	4	4	5	0	37	45.5	0	0	31	7	4	3	0	45	50.9	0	0	1	0	0	0	0	1	1.0
16:45 - 17:00	0	1	176	27	6	8	0	218	230.8	0	0	92	12	0	0	0	104	104.0	0	0	2	0	0	0	0	2	2.0	0	0	28	3	3	6	0	40	49.3	0	0	33	15	3	4	0	55	61.7	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**1**	**617**	**118**	**19**	**32**	**0**	**787**	**837.5**	**0**	**0**	**384**	**68**	**5**	**0**	**0**	**457**	**459.5**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**105**	**13**	**11**	**20**	**0**	**149**	**180.5**	**0**	**0**	**134**	**37**	**13**	**17**	**0**	**201**	**229.6**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**
17:00 - 17:15	0	1	181	32	5	10	0	229	243.9	0	0	94	18	1	2	0	115	118.1	0	0	0	0	0	0	0	0	0.0	0	0	27	2	4	9	0	42	55.7	0	0	34	8	2	5	0	49	56.5	0	0	2	0	0	0	0	2	2.0
17:15 - 17:30	0	0	186	34	3	8	0	231	242.9	0	0	143	20	4	0	0	167	169.0	0	0	1	0	0	0	0	1	1.0	0	1	36	2	2	0	0	41	41.4	0	0	52	6	1	6	0	65	73.3	0	0	2	1	0	0	0	3	3.0
17:30 - 17:45	0	0	191	28	2	7	2	230	242.1	0	0	120	19	2	0	0	141	142.0	0	0	2	0	0	0	0	2	2.0	0	2	34	4	0	2	0	42	43.4	0	1	49	9	1	2	0	62	64.5	0	0	2	0	0	0	0	2	2.0
17:45 - 18:00	0	0	191	13	4	9	0	217	230.7	0	1	103	12	5	0	1	122	124.9	0	0	0	1	0	0	0	1	1.0	0	0	48	4	0	5	0	57	63.5	0	0	46	13	2	3	0	64	68.9	0	0	2	1	0	0	0	3	3.0
Hourly Total	**0**	**1**	**749**	**107**	**14**	**34**	**2**	**907**	**959.6**	**0**	**1**	**460**	**69**	**12**	**2**	**1**	**545**	**554.0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**	**0**	**3**	**145**	**12**	**6**	**16**	**0**	**182**	**204.0**	**0**	**1**	**181**	**36**	**6**	**16**	**0**	**240**	**263.2**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**
18:00 - 18:15	0	0	173	13	3	5	0	194	202.0	0	0	98	10	0	0	0	108	108.0	0	0	1	0	0	0	0	1	1.0	0	0	55	2	0	7	0	64	73.1	0	0	43	13	1	4	0	61	66.7	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	0	136	11	1	4	0	152	157.7	0	0	103	5	0	0	0	108	108.0	0	0	0	0	0	0	0	0	0.0	0	0	80	4	2	5	0	91	98.5	0	0	47	5	2	3	0	57	61.9	0	0	2	0	0	0	0	2	2.0
18:30 - 18:45	0	0	94	15	4	10	0	123	138.0	0	0	53	5	1	0	0	59	59.5	0	0	0	0	0	0	0	0	0.0	0	1	67	8	1	8	0	85	95.3	0	0	42	5	2	4	0	53	59.2	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	95	7	2	6	0	110	118.8	0	0	83	2	0	1	0	86	87.3	0	0	0	0	0	0	0	0	0.0	0	0	53	5	0	7	0	65	74.1	0	0	32	6	2	3	0	43	47.9	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**498**	**46**	**10**	**25**	**0**	**579**	**616.5**	**0**	**0**	**337**	**22**	**1**	**1**	**0**	**361**	**362.8**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**1**	**255**	**19**	**3**	**27**	**0**	**305**	**341.0**	**0**	**0**	**164**	**29**	**7**	**14**	**0**	**214**	**235.7**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**
TOTAL	**0**	**2**	**1864**	**271**	**43**	**91**	**2**	**2273**	**2413.6**	**0**	**1**	**1181**	**159**	**18**	**3**	**1**	**1363**	**1376.3**	**0**	**0**	**7**	**1**	**0**	**0**	**0**	**8**	**8.0**	**0**	**4**	**505**	**44**	**20**	**63**	**0**	**636**	**725.5**	**0**	**1**	**479**	**102**	**26**	**47**	**0**	**655**	**728.5**	**0**	**0**	**21**	**2**	**0**	**0**	**0**	**23**	**23.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A453 North

	To Derby Road									To M1 J24 (S)									To A453 (S)									To A50									To Hilton Hotel Lane									To M1 J24 (N)								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	8	3	0	0	0	12	11.4	0	0	103	29	3	14	0	149	168.7	0	0	69	9	6	6	0	90	100.8	0	0	31	19	4	3	0	57	62.9	0	0	1	0	0	0	0	1	1.0	0	0	24	10	2	1	0	37	39.3
07:15 - 07:30	0	0	10	3	1	0	0	14	14.5	0	0	96	16	3	14	2	131	152.7	0	0	82	8	4	9	2	105	120.7	0	0	29	21	2	7	0	59	69.1	0	0	1	1	0	0	0	2	2.0	0	0	32	10	2	6	0	50	58.8
07:30 - 07:45	0	0	20	4	0	0	0	24	24.0	0	0	68	13	5	6	0	92	102.3	0	4	87	18	2	9	1	121	132.3	0	0	49	13	2	5	0	69	76.5	0	0	3	1	0	0	0	4	4.0	0	0	37	6	2	5	0	50	57.5
07:45 - 08:00	0	1	6	0	1	0	0	8	7.9	0	1	81	16	8	8	0	114	127.8	0	0	89	9	4	9	0	111	124.7	0	1	44	7	8	4	0	64	72.6	0	0	3	0	0	0	0	3	3.0	0	0	30	9	3	4	0	46	52.7
Hourly Total	**0**	**2**	**44**	**10**	**2**	**0**	**0**	**58**	**57.8**	**0**	**1**	**348**	**74**	**19**	**42**	**2**	**486**	**551.5**	**0**	**4**	**327**	**44**	**16**	**33**	**3**	**427**	**478.5**	**0**	**1**	**153**	**60**	**16**	**19**	**0**	**249**	**####**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**123**	**35**	**9**	**16**	**0**	**183**	**208.3**
08:00 - 08:15	0	0	9	2	0	0	0	11	11.0	0	0	100	21	6	8	0	135	148.4	0	0	81	12	3	4	0	100	106.7	0	0	44	13	1	6	0	64	72.3	0	0	3	0	0	0	0	3	3.0	0	0	41	11	1	3	0	56	60.4
08:15 - 08:30	0	0	15	2	0	0	0	17	17.0	0	0	97	26	11	7	1	142	157.6	0	0	73	8	2	8	1	92	104.4	0	0	32	9	2	6	0	49	57.8	0	0	3	1	0	0	0	4	4.0	0	0	22	6	2	5	0	35	42.5
08:30 - 08:45	0	0	11	2	1	0	0	14	14.5	0	0	98	24	10	8	0	140	155.4	0	0	71	7	3	8	0	89	100.9	0	0	28	13	3	6	1	51	61.3	0	0	2	1	0	0	0	3	3.0	0	0	18	8	5	5	0	36	45.0
08:45 - 09:00	0	0	7	2	1	0	0	10	10.5	0	0	74	18	8	11	1	112	131.3	0	0	49	7	2	5	0	63	70.5	0	0	24	6	2	2	1	35	39.6	0	0	2	1	0	0	0	3	3.0	0	0	13	6	2	2	0	23	26.6
Hourly Total	**0**	**0**	**42**	**8**	**2**	**0**	**0**	**52**	**53.0**	**0**	**0**	**369**	**89**	**35**	**34**	**2**	**529**	**592.7**	**0**	**0**	**274**	**34**	**10**	**25**	**1**	**344**	**382.5**	**0**	**0**	**128**	**41**	**8**	**20**	**2**	**199**	**####**	**0**	**0**	**10**	**3**	**0**	**0**	**0**	**13**	**13.0**	**0**	**0**	**94**	**31**	**10**	**15**	**0**	**150**	**174.5**
09:00 - 09:15	0	0	5	0	2	0	0	7	8.0	0	0	69	20	3	11	2	105	122.8	0	0	40	5	6	7	2	60	74.1	0	0	25	5	4	4	0	38	45.2	0	0	2	1	0	0	0	3	3.0	0	0	19	2	2	3	0	26	30.9
09:15 - 09:30	0	0	4	3	0	1	0	8	9.3	0	0	88	26	2	18	0	134	158.4	0	0	44	5	2	9	0	60	72.7	0	0	19	5	3	5	2	34	44.0	0	0	2	0	0	0	0	2	2.0	0	0	15	4	2	5	0	26	33.5
09:30 - 09:45	0	0	9	3	0	0	0	12	12.0	0	0	70	13	3	12	0	98	115.1	0	0	38	8	6	8	0	60	73.4	0	0	26	6	4	4	0	40	47.2	0	0	2	0	0	0	0	2	2.0	0	0	27	6	0	4	0	37	42.2
09:45 - 10:00	0	0	5	3	0	0	0	8	8.0	0	0	82	24	10	9	0	125	141.7	0	1	42	9	4	12	0	68	85.0	0	1	26	7	2	9	0	45	57.1	0	0	2	1	0	0	0	3	3.0	0	0	20	4	0	6	0	30	37.8
Hourly Total	**0**	**0**	**23**	**9**	**2**	**1**	**0**	**35**	**37.3**	**0**	**0**	**309**	**83**	**18**	**50**	**2**	**462**	**538.0**	**0**	**1**	**164**	**27**	**18**	**36**	**2**	**248**	**305.2**	**0**	**1**	**96**	**23**	**13**	**22**	**2**	**157**	**####**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**81**	**16**	**4**	**18**	**0**	**119**	**144.4**
TOTAL	**0**	**2**	**109**	**27**	**6**	**1**	**0**	**145**	**148.1**	**0**	**1**	**1026**	**246**	**72**	**126**	**6**	**1477**	**1682.2**	**0**	**5**	**765**	**105**	**44**	**94**	**6**	**1019**	**1166.2**	**0**	**2**	**377**	**124**	**37**	**61**	**4**	**605**	**####**	**0**	**0**	**26**	**7**	**0**	**0**	**0**	**33**	**33.0**	**0**	**0**	**298**	**82**	**23**	**49**	**0**	**452**	**527.2**
16:00 - 16:15	0	1	8	0	1	0	0	10	9.9	0	0	160	23	7	9	1	200	216.2	0	0	43	11	2	7	0	63	73.1	0	1	76	27	6	8	0	118	####	0	0	2	0	0	0	0	2	2.0	0	0	52	26	2	4	0	84	90.2
16:15 - 16:30	0	0	9	1	0	0	0	10	10.0	0	2	167	33	2	10	0	214	226.8	0	0	47	7	2	6	0	62	70.8	0	0	64	26	3	8	0	101	####	0	0	2	0	0	0	0	2	2.0	0	0	51	16	5	6	0	78	88.3
16:30 - 16:45	0	0	13	1	0	0	0	14	14.0	0	2	181	45	9	2	0	239	244.9	0	0	30	6	3	7	0	46	56.6	0	2	52	17	3	6	0	80	88.1	0	0	1	0	0	0	0	1	1.0	0	0	54	25	4	4	0	87	94.2
16:45 - 17:00	0	0	15	3	0	0	0	18	18.0	0	0	193	35	4	4	0	236	243.2	0	1	58	10	1	3	1	74	78.8	0	0	68	23	1	3	0	95	99.4	0	0	2	0	0	0	0	2	2.0	0	0	60	21	2	3	0	86	90.9
Hourly Total	**0**	**1**	**45**	**5**	**1**	**0**	**0**	**52**	**51.9**	**0**	**4**	**701**	**136**	**22**	**25**	**1**	**889**	**931.1**	**0**	**1**	**178**	**34**	**8**	**23**	**1**	**245**	**279.3**	**0**	**3**	**260**	**93**	**13**	**25**	**0**	**394**	**####**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**7**	**7.0**	**0**	**0**	**217**	**88**	**13**	**17**	**0**	**335**	**363.6**
17:00 - 17:15	0	0	10	3	0	0	0	13	13.0	0	1	184	22	2	2	0	211	214.0	0	1	47	3	3	5	0	59	66.4	0	0	66	12	2	1	0	81	83.3	0	0	2	0	0	0	0	2	2.0	0	1	53	15	3	2	0	74	77.5
17:15 - 17:30	0	0	27	1	0	0	0	28	28.0	0	0	175	25	0	8	0	208	218.4	0	1	59	2	6	0	0	68	70.4	0	0	93	17	2	4	0	116	####	0	0	2	1	0	0	0	3	3.0	0	0	58	12	0	6	0	76	83.8
17:30 - 17:45	0	0	18	0	0	0	0	18	18.0	0	0	171	14	4	5	0	194	202.5	0	0	66	6	0	2	0	74	76.6	0	0	89	13	2	5	0	109	####	0	0	2	0	0	0	0	2	2.0	0	0	45	8	0	3	0	56	59.9
17:45 - 18:00	0	1	12	1	1	0	0	15	14.9	0	0	173	12	4	11	0	200	216.3	0	0	81	4	0	8	0	93	103.4	0	0	74	15	4	6	0	99	####	0	0	3	1	0	0	0	4	4.0	0	0	49	6	0	2	0	57	59.6
Hourly Total	**0**	**1**	**67**	**5**	**1**	**0**	**0**	**74**	**73.9**	**0**	**1**	**703**	**73**	**10**	**26**	**0**	**813**	**851.2**	**0**	**2**	**253**	**15**	**9**	**15**	**0**	**294**	**316.8**	**0**	**0**	**322**	**57**	**10**	**16**	**0**	**405**	**####**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**11**	**11.0**	**0**	**1**	**205**	**41**	**3**	**13**	**0**	**263**	**280.8**
18:00 - 18:15	0	0	17	0	0	0	0	17	17.0	0	0	171	9	3	8	2	193	206.9	0	1	71	2	1	4	0	79	84.1	0	0	54	17	1	2	0	74	77.1	0	0	2	0	0	0	0	2	2.0	0	0	33	8	0	3	0	44	47.9
18:15 - 18:30	0	0	6	1	0	0	0	7	7.0	0	0	144	14	0	6	0	164	171.8	0	0	77	5	2	3	0	87	91.9	0	0	46	6	2	4	0	58	64.2	0	0	3	1	0	0	0	4	4.0	0	0	28	3	1	2	0	34	37.1
18:30 - 18:45	0	0	13	3	1	0	0	17	17.5	0	0	116	9	1	3	0	129	133.4	0	0	63	11	2	4	0	80	86.2	0	0	36	6	2	1	0	45	47.3	0	0	2	0	0	0	0	2	2.0	0	0	40	5	2	2	0	49	52.6
18:45 - 19:00	0	0	7	1	0	1	0	9	10.3	0	0	104	8	1	6	0	119	127.3	0	0	43	9	2	5	0	59	66.5	0	0	23	10	1	2	1	37	41.1	0	0	2	0	0	0	0	2	2.0	0	0	31	4	1	3	0	39	43.4
Hourly Total	**0**	**0**	**43**	**5**	**1**	**1**	**0**	**50**	**51.8**	**0**	**0**	**535**	**40**	**5**	**23**	**2**	**605**	**639.4**	**0**	**1**	**254**	**27**	**7**	**16**	**0**	**305**	**328.7**	**0**	**0**	**159**	**39**	**6**	**9**	**1**	**214**	**####**	**0**	**0**	**9**	**1**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**132**	**20**	**4**	**10**	**0**	**166**	**181.0**
TOTAL	**0**	**2**	**155**	**15**	**3**	**1**	**0**	**176**	**177.6**	**0**	**5**	**1939**	**249**	**37**	**74**	**3**	**2307**	**2421.7**	**0**	**4**	**685**	**76**	**24**	**54**	**1**	**844**	**924.8**	**0**	**3**	**741**	**189**	**29**	**50**	**1**	**1013**	**####**	**0**	**0**	**25**	**3**	**0**	**0**	**0**	**28**	**28.0**	**0**	**1**	**554**	**149**	**20**	**40**	**0**	**764**	**825.4**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: Derby Road

	To M1 J24 (S)									To A453 (S)										To A50										To Hilton Hotel Lane										To M1 J24 (N)										To A453 (N)									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	18	1	0	1	0	20	21.3	0	0	26	2	0	0	1	29	30.0	0	0	10	2	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	9	0	0	0	0	9	9.0	0	0	7	2	0	0	0	9	9.0
07:15 - 07:30	0	0	9	3	0	0	0	12	12.0	0	0	27	2	0	0	0	29	29.0	0	0	10	3	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0.0	0	0	9	0	0	0	0	9	9.0	0	0	8	2	1	0	0	11	11.5
07:30 - 07:45	0	0	11	3	0	0	0	14	14.0	0	0	35	2	0	0	0	37	37.0	0	0	18	2	2	1	0	23	25.3	0	0	1	0	0	0	0	1	1.0	0	0	10	0	0	0	0	10	10.0	0	0	12	4	1	0	0	17	17.5
07:45 - 08:00	0	0	7	0	1	1	0	9	10.8	0	0	46	7	0	0	1	54	55.0	0	0	24	5	1	1	0	31	32.8	0	0	1	0	0	0	0	1	1.0	0	0	16	9	0	0	0	25	25.0	0	0	16	4	1	0	0	21	21.5
Hourly Total	**0**	**0**	**45**	**7**	**1**	**2**	**0**	**55**	**58.1**	**0**	**0**	**134**	**13**	**0**	**0**	**2**	**149**	**151.0**	**0**	**0**	**62**	**12**	**4**	**5**	**0**	**83**	**91.5**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**44**	**9**	**0**	**0**	**0**	**53**	**53.0**	**0**	**0**	**43**	**12**	**3**	**0**	**0**	**58**	**59.5**
08:00 - 08:15	0	0	11	5	2	0	0	18	19.0	0	0	33	3	0	0	0	36	36.0	0	0	20	3	0	2	0	25	27.6	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	0	0	13	13.0	0	0	17	4	0	0	0	21	21.0
08:15 - 08:30	0	0	11	1	1	0	0	13	13.5	0	0	43	4	0	0	0	47	47.0	0	0	19	3	4	2	0	28	32.6	0	0	0	0	0	0	0	0	0.0	0	0	10	3	0	0	0	13	13.0	0	0	12	4	0	0	0	16	16.0
08:30 - 08:45	0	0	8	4	0	1	0	13	14.3	0	0	32	3	0	0	0	35	35.0	0	0	16	9	3	0	1	29	31.5	0	0	1	0	0	0	0	1	1.0	0	0	11	4	0	0	0	15	15.0	0	0	9	3	1	0	0	13	13.5
08:45 - 09:00	0	0	3	2	0	0	0	5	5.0	0	0	24	2	0	0	0	26	26.0	0	0	13	2	2	1	2	20	24.3	0	0	0	0	0	0	0	0	0.0	0	0	7	3	2	0	0	12	13.0	0	0	9	2	2	0	0	13	14.0
Hourly Total	**0**	**0**	**33**	**12**	**3**	**1**	**0**	**49**	**51.8**	**0**	**0**	**132**	**12**	**0**	**0**	**0**	**144**	**144.0**	**0**	**0**	**68**	**17**	**9**	**5**	**3**	**102**	**116.0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**39**	**12**	**2**	**0**	**0**	**53**	**54.0**	**0**	**0**	**47**	**13**	**3**	**0**	**0**	**63**	**64.5**
09:00 - 09:15	0	0	10	5	1	1	0	17	18.8	0	0	21	5	0	0	0	26	26.0	0	0	14	3	0	1	0	18	19.3	0	0	0	0	0	0	0	0	0.0	0	0	14	3	0	0	0	17	17.0	0	0	11	2	0	1	0	14	15.3
09:15 - 09:30	0	0	12	0	0	0	0	12	12.0	0	0	22	4	0	0	0	26	26.0	0	0	9	3	1	2	0	15	18.1	0	0	0	0	0	0	0	0	0.0	0	0	6	3	0	0	0	9	9.0	0	0	8	1	1	0	0	10	10.5
09:30 - 09:45	0	0	5	0	1	1	0	7	8.8	0	0	17	2	0	0	0	19	19.0	0	0	10	2	2	0	0	14	15.0	0	0	1	0	0	0	0	1	1.0	0	0	7	2	0	0	0	9	9.0	0	0	5	2	0	0	0	7	7.0
09:45 - 10:00	0	0	6	2	0	2	0	10	12.6	0	1	11	4	0	0	0	16	15.4	0	1	5	4	1	0	0	11	10.9	0	0	0	0	0	0	0	0	0.0	0	0	5	2	0	0	0	7	7.0	0	0	5	2	1	0	0	8	8.5
Hourly Total	**0**	**0**	**33**	**7**	**2**	**4**	**0**	**46**	**52.2**	**0**	**1**	**71**	**15**	**0**	**0**	**0**	**87**	**86.4**	**0**	**1**	**38**	**12**	**4**	**3**	**0**	**58**	**63.3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**32**	**10**	**0**	**0**	**0**	**42**	**42.0**	**0**	**0**	**29**	**7**	**2**	**1**	**0**	**39**	**41.3**
TOTAL	**0**	**0**	**111**	**26**	**6**	**7**	**0**	**150**	**162.1**	**0**	**1**	**337**	**40**	**0**	**0**	**2**	**380**	**381.4**	**0**	**1**	**168**	**41**	**17**	**13**	**3**	**243**	**270.8**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**115**	**31**	**2**	**0**	**0**	**148**	**149.0**	**0**	**0**	**119**	**32**	**8**	**1**	**0**	**160**	**165.3**
16:00 - 16:15	0	0	14	0	0	0	0	14	14.0	0	0	20	2	0	0	0	22	22.0	0	0	33	9	0	0	0	42	42.0	0	0	1	0	0	0	0	1	1.0	0	0	23	7	0	0	0	30	30.0	0	0	16	3	0	0	0	19	19.0
16:15 - 16:30	0	0	8	1	2	0	0	11	12.0	0	0	20	2	0	0	0	22	22.0	0	0	27	14	2	0	0	43	44.0	0	0	0	0	0	0	0	0	0.0	0	0	21	6	0	0	0	27	27.0	0	0	13	6	0	0	0	19	19.0
16:30 - 16:45	0	0	10	4	0	0	0	14	14.0	0	0	14	4	0	0	0	18	18.0	0	4	26	9	0	0	0	39	36.6	0	0	0	0	0	0	0	0	0.0	0	0	23	3	0	0	0	26	26.0	0	0	11	7	0	0	0	18	18.0
16:45 - 17:00	0	0	6	2	0	1	0	9	10.3	0	0	22	2	0	0	0	24	24.0	0	0	26	4	0	2	0	32	34.6	0	0	0	0	0	0	0	0	0.0	0	0	20	4	0	0	0	24	24.0	0	0	11	2	0	0	0	13	13.0
Hourly Total	**0**	**0**	**38**	**7**	**2**	**1**	**0**	**48**	**50.3**	**0**	**0**	**76**	**10**	**0**	**0**	**0**	**86**	**86.0**	**0**	**4**	**112**	**36**	**2**	**2**	**0**	**156**	**157.2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**87**	**20**	**0**	**0**	**0**	**107**	**107.0**	**0**	**0**	**51**	**18**	**0**	**0**	**0**	**69**	**69.0**
17:00 - 17:15	0	0	17	5	0	1	0	23	24.3	0	0	25	0	0	2	0	27	29.6	0	0	31	10	0	1	0	42	43.3	0	0	1	0	0	0	0	1	1.0	0	0	25	6	0	0	0	31	31.0	0	0	9	1	0	0	0	10	10.0
17:15 - 17:30	0	0	8	1	0	0	0	9	9.0	0	1	16	0	0	0	0	17	16.4	0	0	28	4	0	0	0	32	32.0	0	0	0	0	0	0	0	0	0.0	0	0	16	2	0	0	0	18	18.0	0	0	16	1	0	0	0	17	17.0
17:30 - 17:45	0	0	15	0	0	0	0	15	15.0	0	0	25	2	0	0	0	27	27.0	0	0	33	3	1	1	0	38	39.8	0	0	1	0	0	0	0	1	1.0	0	0	19	2	0	0	0	21	21.0	0	0	17	2	0	0	1	20	21.0
17:45 - 18:00	0	0	4	0	0	0	0	4	4.0	0	0	17	0	0	0	0	17	17.0	0	0	16	4	1	2	0	23	26.1	0	0	0	0	0	0	0	0	0.0	0	0	14	3	0	0	0	17	17.0	0	0	8	2	0	0	0	10	10.0
Hourly Total	**0**	**0**	**44**	**6**	**0**	**1**	**0**	**51**	**52.3**	**0**	**1**	**83**	**2**	**0**	**2**	**0**	**88**	**90.0**	**0**	**0**	**108**	**21**	**2**	**4**	**0**	**135**	**141.2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**74**	**13**	**0**	**0**	**0**	**87**	**87.0**	**0**	**0**	**50**	**6**	**0**	**0**	**1**	**57**	**58.0**
18:00 - 18:15	0	0	14	0	0	0	0	14	14.0	0	0	36	1	0	0	0	37	37.0	0	0	27	5	1	0	0	33	33.5	0	0	1	0	0	0	0	1	1.0	0	0	18	5	0	0	0	23	23.0	0	0	12	4	1	0	0	17	17.5
18:15 - 18:30	0	0	8	1	1	0	0	10	10.5	0	0	28	0	0	0	0	28	28.0	0	0	17	4	0	0	0	21	21.0	0	0	1	0	0	0	0	1	1.0	0	0	12	0	0	0	0	12	12.0	0	0	9	0	0	0	0	9	9.0
18:30 - 18:45	0	0	6	0	0	0	0	6	6.0	0	0	12	1	0	0	0	13	13.0	0	0	10	1	1	0	0	12	12.5	0	0	1	0	0	0	0	1	1.0	0	0	7	1	0	0	0	8	8.0	0	0	10	2	1	0	0	13	13.5
18:45 - 19:00	0	0	3	0	1	0	0	4	4.5	0	0	29	3	0	0	0	32	32.0	0	0	16	4	3	0	0	23	24.5	0	0	0	0	0	0	0	0	0.0	0	0	16	1	0	0	0	17	17.0	0	0	10	1	0	0	1	12	13.0
Hourly Total	**0**	**0**	**31**	**1**	**2**	**0**	**0**	**34**	**35.0**	**0**	**0**	**105**	**5**	**0**	**0**	**0**	**110**	**110.0**	**0**	**0**	**70**	**14**	**5**	**0**	**0**	**89**	**91.5**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**53**	**7**	**0**	**0**	**0**	**60**	**60.0**	**0**	**0**	**41**	**7**	**2**	**0**	**1**	**51**	**53.0**
TOTAL	**0**	**0**	**113**	**14**	**4**	**2**	**0**	**133**	**137.6**	**0**	**1**	**264**	**17**	**0**	**2**	**0**	**284**	**286.0**	**0**	**4**	**290**	**71**	**9**	**6**	**0**	**380**	**389.9**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**214**	**40**	**0**	**0**	**0**	**254**	**254.0**	**0**	**0**	**142**	**31**	**2**	**0**	**2**	**177**	**180.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: M1 J24 South

	To A453 (S)									To A50										To Hilton Hotel Lane										To M1 J24 (N)										To A453 (N)										To Derby Road									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	139	42	11	38	0	**230**	**284.9**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	87	35	9	17	0	**148**	**174.6**	0	0	8	5	1	1	0	**15**	**16.8**
07:15 - 07:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	181	50	12	32	0	**275**	**322.6**	0	0	2	1	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	130	39	8	12	0	**189**	**208.6**	0	0	15	6	1	1	0	**23**	**24.8**
07:30 - 07:45	0	0	0	0	0	1	0	**1**	**2.3**	0	0	197	45	15	35	0	**292**	**345.0**	0	0	4	1	0	0	0	**5**	**5.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	119	37	11	18	0	**185**	**213.9**	0	0	17	5	1	2	0	**25**	**28.1**
07:45 - 08:00	0	0	1	1	0	1	0	**3**	**4.3**	0	0	202	40	14	29	0	**285**	**329.7**	0	0	6	0	0	0	0	**6**	**6.0**	0	0	3	1	0	0	0	**4**	**4.0**	0	0	130	30	8	7	0	**175**	**188.1**	0	0	16	2	1	1	0	**20**	**21.8**
Hourly Total	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**4**	**6.6**	**0**	**0**	**719**	**177**	**52**	**134**	**0**	**1082**	**1282.2**	**0**	**0**	**13**	**2**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**466**	**141**	**36**	**54**	**0**	**697**	**785.2**	**0**	**0**	**56**	**18**	**4**	**5**	**0**	**83**	**91.5**
08:00 - 08:15	0	0	1	0	0	0	0	**1**	**1.0**	0	0	186	27	14	37	0	**264**	**319.1**	0	0	4	0	0	0	0	**4**	**4.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	145	36	5	6	0	**192**	**202.3**	0	0	24	5	3	0	0	**32**	**33.5**
08:15 - 08:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	220	40	21	28	0	**309**	**355.9**	0	0	5	1	0	0	0	**6**	**6.0**	0	0	0	1	0	0	0	**1**	**1.0**	0	0	138	26	4	11	0	**179**	**195.3**	0	0	16	2	2	1	0	**21**	**23.3**
08:30 - 08:45	0	0	1	0	0	0	0	**1**	**1.0**	0	0	203	43	9	29	0	**284**	**326.2**	0	0	9	1	0	0	0	**10**	**10.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	104	18	7	7	0	**136**	**148.6**	0	0	11	1	3	1	0	**16**	**18.8**
08:45 - 09:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	202	29	9	36	0	**276**	**327.3**	0	0	6	1	0	0	0	**7**	**7.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	89	20	7	6	0	**122**	**133.3**	0	0	9	4	2	0	0	**15**	**16.0**
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**811**	**139**	**53**	**130**	**0**	**1133**	**1328.5**	**0**	**0**	**24**	**3**	**0**	**0**	**0**	**27**	**27.0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**476**	**100**	**23**	**30**	**0**	**629**	**679.5**	**0**	**0**	**60**	**12**	**10**	**2**	**0**	**84**	**91.6**
09:00 - 09:15	0	0	1	1	0	0	0	**2**	**2.0**	0	0	138	42	10	31	0	**221**	**266.3**	0	0	7	2	0	0	0	**9**	**9.0**	0	0	0	0	1	0	0	**1**	**1.5**	0	0	120	28	9	18	0	**175**	**202.9**	0	0	14	5	2	0	0	**21**	**22.0**
09:15 - 09:30	0	0	1	1	0	1	0	**3**	**4.3**	0	0	161	47	11	29	1	**249**	**293.2**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	106	27	13	8	0	**154**	**170.9**	0	0	5	2	2	2	0	**11**	**14.6**
09:30 - 09:45	0	0	3	0	2	0	0	**5**	**6.0**	0	0	141	29	16	36	0	**222**	**276.8**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	1	0	0	0	0	**1**	**1.0**	0	1	92	15	6	4	0	**118**	**125.6**	0	0	10	4	3	0	0	**17**	**18.5**
09:45 - 10:00	0	0	1	0	1	0	0	**2**	**2.5**	0	0	121	29	16	30	0	**196**	**243.0**	0	0	4	1	0	0	0	**5**	**5.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	67	24	10	13	0	**114**	**135.9**	0	0	6	4	2	0	0	**12**	**13.0**
Hourly Total	**0**	**0**	**6**	**2**	**3**	**1**	**0**	**12**	**14.8**	**0**	**0**	**561**	**147**	**53**	**126**	**1**	**888**	**1079.3**	**0**	**0**	**17**	**3**	**0**	**0**	**0**	**20**	**20.0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**2**	**2.5**	**0**	**1**	**385**	**94**	**38**	**43**	**0**	**561**	**635.3**	**0**	**0**	**35**	**15**	**9**	**2**	**0**	**61**	**68.1**
TOTAL	**0**	**0**	**9**	**3**	**3**	**3**	**0**	**18**	**23.4**	**0**	**0**	**2091**	**463**	**158**	**390**	**1**	**3103**	**3690.0**	**0**	**0**	**54**	**8**	**0**	**0**	**0**	**62**	**62.0**	**0**	**0**	**4**	**2**	**1**	**0**	**0**	**7**	**7.5**	**0**	**1**	**1327**	**335**	**97**	**127**	**0**	**1887**	**2100.0**	**0**	**0**	**151**	**45**	**23**	**9**	**0**	**228**	**251.2**
16:00 - 16:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	146	41	11	37	0	**235**	**288.6**	0	0	2	0	0	0	0	**2**	**2.0**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	48	16	3	6	0	**73**	**82.3**	0	0	7	3	0	1	0	**11**	**12.3**
16:15 - 16:30	0	0	0	0	1	0	0	**1**	**1.5**	0	0	138	48	7	34	0	**227**	**274.7**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	65	17	3	11	2	**98**	**115.8**	0	0	9	5	0	2	0	**16**	**18.6**
16:30 - 16:45	0	0	1	0	0	0	0	**1**	**1.0**	0	0	182	29	7	30	0	**248**	**290.5**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	73	21	6	4	0	**104**	**112.2**	0	0	12	5	1	0	0	**18**	**18.5**
16:45 - 17:00	0	0	1	0	0	0	0	**1**	**1.0**	0	0	174	38	8	23	0	**243**	**276.9**	0	0	2	0	0	0	0	**2**	**2.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	82	21	3	4	0	**110**	**116.7**	0	0	9	4	2	0	0	**15**	**16.0**
Hourly Total	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**3**	**3.5**	**0**	**0**	**640**	**156**	**33**	**124**	**0**	**953**	**1130.7**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**268**	**75**	**15**	**25**	**2**	**385**	**427.0**	**0**	**0**	**37**	**17**	**3**	**3**	**0**	**60**	**65.4**
17:00 - 17:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	216	38	4	22	0	**280**	**310.6**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	91	16	7	7	0	**121**	**133.6**	0	0	11	4	1	2	0	**18**	**21.1**
17:15 - 17:30	0	0	1	0	0	0	0	**1**	**1.0**	0	0	185	25	8	16	0	**234**	**258.8**	0	0	2	1	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	96	14	1	6	1	**118**	**127.3**	0	0	15	4	0	2	0	**21**	**23.6**
17:30 - 17:45	0	0	1	0	0	1	0	**2**	**3.3**	0	1	225	21	4	24	0	**275**	**307.6**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	112	21	4	5	3	**145**	**156.5**	0	0	12	4	1	2	0	**19**	**22.1**
17:45 - 18:00	0	0	2	0	0	0	0	**2**	**2.0**	0	0	228	39	8	25	0	**300**	**336.5**	0	0	3	2	0	0	0	**5**	**5.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	122	17	2	3	0	**144**	**148.9**	0	0	12	5	1	0	0	**18**	**18.5**
Hourly Total	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**5**	**6.3**	**0**	**1**	**854**	**123**	**24**	**87**	**0**	**1089**	**1213.5**	**0**	**0**	**11**	**3**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**421**	**68**	**14**	**21**	**4**	**528**	**566.3**	**0**	**0**	**50**	**17**	**3**	**6**	**0**	**76**	**85.3**
18:00 - 18:15	0	0	0	1	0	0	0	**1**	**1.0**	0	0	174	20	4	34	0	**232**	**278.2**	0	0	2	0	0	0	0	**2**	**2.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	79	9	3	2	0	**93**	**97.1**	0	0	8	2	0	0	0	**10**	**10.0**
18:15 - 18:30	0	0	2	0	0	0	0	**2**	**2.0**	0	0	94	18	4	11	0	**127**	**143.3**	0	0	2	1	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	59	5	0	5	0	**69**	**75.5**	0	0	5	1	0	2	0	**8**	**10.6**
18:30 - 18:45	0	0	0	0	0	0	0	**0**	**0.0**	0	0	27	3	0	4	0	**34**	**39.2**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	29	4	0	1	0	**34**	**35.3**	0	0	2	3	0	0	0	**5**	**5.0**
18:45 - 19:00	0	0	0	1	0	0	0	**1**	**1.0**	0	0	127	18	4	13	0	**162**	**180.9**	0	0	2	0	0	0	0	**2**	**2.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	119	6	1	7	0	**133**	**142.6**	0	0	12	1	0	2	0	**15**	**17.6**
Hourly Total	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**422**	**59**	**12**	**62**	**0**	**555**	**641.6**	**0**	**0**	**7**	**1**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**286**	**24**	**4**	**15**	**0**	**329**	**350.5**	**0**	**0**	**27**	**7**	**0**	**4**	**0**	**38**	**43.2**
TOTAL	**0**	**0**	**8**	**2**	**1**	**1**	**0**	**12**	**13.8**	**0**	**1**	**1916**	**338**	**69**	**273**	**0**	**2597**	**2985.8**	**0**	**0**	**26**	**4**	**0**	**0**	**0**	**30**	**30.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**975**	**167**	**33**	**61**	**6**	**1242**	**1343.8**	**0**	**0**	**114**	**41**	**6**	**13**	**0**	**174**	**193.9**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A453 South

	To A50									To Hilton Hotel Lane										To M1 J24 (N)										To A453 (N)										To Derby Road										To M1 J24 (S)									
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	128	30	19	17	0	195	226.0	0	0	0	0	0	0	0	0	0.0	0	0	30	2	2	7	0	41	51.1	0	0	23	11	1	2	0	37	40.1	0	0	3	2	1	1	0	7	8.8	0	0	4	2	1	3	0	10	14.4
07:15 - 07:30	0	0	154	30	7	17	0	208	233.6	0	0	0	1	0	0	0	1	1.0	0	0	33	5	0	7	0	45	54.1	0	0	25	9	1	2	1	38	42.1	0	0	4	3	1	1	0	9	10.8	0	0	4	3	1	4	0	12	17.7
07:30 - 07:45	0	0	180	37	10	23	1	251	286.9	0	0	1	0	0	0	0	1	1.0	0	0	43	5	0	4	0	52	57.2	0	0	36	7	2	2	1	48	52.6	0	0	5	2	1	0	0	8	8.5	0	0	4	2	1	3	0	10	14.4
07:45 - 08:00	0	0	180	26	12	19	0	237	267.7	0	0	2	0	0	0	0	2	2.0	0	0	50	10	0	10	0	70	83.0	0	0	55	8	2	5	0	70	77.5	0	0	6	1	0	1	0	8	9.3	0	0	9	2	2	5	0	18	25.5
Hourly Total	**0**	**1**	**642**	**123**	**48**	**76**	**1**	**891**	**1014.2**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**156**	**22**	**2**	**28**	**0**	**208**	**245.4**	**0**	**0**	**139**	**35**	**6**	**11**	**2**	**193**	**212.3**	**0**	**0**	**18**	**8**	**3**	**3**	**0**	**32**	**37.4**	**0**	**0**	**21**	**9**	**5**	**15**	**0**	**50**	**72.0**
08:00 - 08:15	0	1	173	42	13	8	0	237	253.3	0	0	1	0	0	0	0	1	1.0	0	0	37	1	3	10	0	51	65.5	0	0	38	7	3	1	0	49	51.8	0	0	5	2	1	0	0	8	8.5	0	0	8	3	1	1	0	13	14.8
08:15 - 08:30	0	0	183	24	15	10	0	232	252.5	0	0	2	0	0	0	0	2	2.0	0	0	51	7	2	7	0	67	77.1	0	0	51	9	3	2	0	65	69.1	0	0	5	1	0	0	0	6	6.0	0	0	8	2	2	4	0	16	22.2
08:30 - 08:45	0	1	125	18	15	17	1	177	207.0	0	0	0	0	0	0	0	0	0.0	0	0	58	8	0	7	0	73	82.1	0	0	60	9	2	4	0	75	81.2	0	0	6	1	0	1	0	8	9.3	0	0	11	1	2	3	0	17	21.9
08:45 - 09:00	0	0	107	22	10	18	0	157	185.4	0	0	2	0	0	0	0	2	2.0	0	0	51	8	2	12	0	73	89.6	0	0	51	4	2	1	0	58	60.3	0	0	5	2	1	0	0	8	8.5	0	0	6	1	1	2	2	12	17.1
Hourly Total	**0**	**2**	**588**	**106**	**53**	**53**	**1**	**803**	**898.2**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**197**	**24**	**7**	**36**	**0**	**264**	**314.3**	**0**	**0**	**200**	**29**	**10**	**8**	**0**	**247**	**262.4**	**0**	**0**	**21**	**6**	**2**	**1**	**0**	**30**	**32.3**	**0**	**0**	**33**	**7**	**6**	**10**	**2**	**58**	**76.0**
09:00 - 09:15	0	0	101	17	10	23	1	152	187.9	0	0	1	0	0	0	0	1	1.0	0	0	16	3	2	5	0	26	33.5	0	0	16	3	2	6	0	27	35.8	0	0	3	2	1	0	0	6	6.5	0	0	5	2	2	3	0	12	16.9
09:15 - 09:30	0	0	84	17	10	19	1	131	161.7	0	0	0	0	0	0	0	0	0.0	0	0	29	8	2	12	0	51	67.6	0	0	30	5	4	4	0	43	50.2	0	0	2	1	1	0	0	4	4.5	0	0	4	1	2	2	0	9	12.6
09:30 - 09:45	0	0	74	18	14	12	2	120	144.6	0	0	0	0	0	0	0	0	0.0	0	0	22	8	0	9	0	39	50.7	0	0	17	5	3	2	0	27	31.1	0	0	3	2	0	0	0	5	5.0	0	0	5	2	0	2	0	9	11.6
09:45 - 10:00	0	0	63	16	10	12	0	101	121.6	0	0	1	0	0	0	0	1	1.0	0	0	16	2	0	6	0	24	31.8	0	0	17	9	0	7	1	34	44.1	0	0	2	2	0	0	0	4	4.0	0	0	5	2	0	4	0	11	16.2
Hourly Total	**0**	**0**	**322**	**68**	**44**	**66**	**4**	**504**	**615.8**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**83**	**21**	**4**	**32**	**0**	**140**	**183.6**	**0**	**0**	**80**	**22**	**9**	**19**	**1**	**131**	**161.2**	**0**	**0**	**10**	**7**	**2**	**0**	**0**	**19**	**20.0**	**0**	**0**	**19**	**7**	**4**	**11**	**0**	**41**	**57.3**
TOTAL	**0**	**3**	**1552**	**297**	**145**	**195**	**6**	**2198**	**2528.2**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**11**	**11.0**	**0**	**0**	**436**	**67**	**13**	**96**	**0**	**612**	**743.3**	**0**	**0**	**419**	**86**	**25**	**38**	**3**	**571**	**635.9**	**0**	**0**	**49**	**21**	**7**	**4**	**0**	**81**	**89.7**	**0**	**0**	**73**	**23**	**15**	**36**	**2**	**149**	**205.3**
16:00 - 16:15	0	0	178	44	14	13	0	249	272.9	0	0	2	0	0	0	0	2	2.0	0	0	95	16	0	4	0	115	120.2	0	0	44	10	0	3	0	57	60.9	0	0	6	2	0	0	0	8	8.0	0	0	5	2	0	2	0	9	11.6
16:15 - 16:30	0	1	181	33	7	12	1	235	254.5	0	0	1	0	0	0	0	1	1.0	0	0	85	8	3	1	0	97	99.8	0	0	48	9	2	1	0	60	62.3	0	0	6	3	0	0	0	9	9.0	0	0	7	2	2	1	0	12	14.3
16:30 - 16:45	0	0	192	55	9	13	0	269	290.4	0	0	1	0	0	0	0	1	1.0	0	0	88	15	6	9	0	118	132.7	0	0	33	10	1	5	0	49	56.0	0	0	5	2	1	0	0	8	8.5	0	0	7	3	1	2	0	13	16.1
16:45 - 17:00	0	0	130	20	7	8	0	165	178.9	0	0	1	0	0	0	0	1	1.0	0	0	94	9	3	2	0	108	112.1	0	0	53	7	1	1	0	62	63.8	0	0	7	2	0	0	0	9	9.0	0	0	7	2	1	2	0	12	15.1
Hourly Total	**0**	**1**	**681**	**152**	**37**	**46**	**1**	**918**	**996.7**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**362**	**48**	**12**	**16**	**0**	**438**	**464.8**	**0**	**0**	**178**	**36**	**4**	**10**	**0**	**228**	**243.0**	**0**	**0**	**24**	**9**	**1**	**0**	**0**	**34**	**34.5**	**0**	**0**	**26**	**9**	**4**	**7**	**0**	**46**	**57.1**
17:00 - 17:15	0	0	204	26	7	16	1	254	279.3	0	0	0	0	0	0	0	0	0.0	0	0	91	16	2	3	0	112	116.9	0	0	44	6	1	4	1	56	62.7	0	0	7	2	0	1	0	10	11.3	0	0	8	2	1	1	0	12	13.8
17:15 - 17:30	0	0	255	26	6	20	0	307	336.0	0	0	1	0	0	0	0	1	1.0	0	0	56	2	0	2	0	60	62.6	0	0	49	4	4	1	0	58	61.3	0	0	9	2	0	0	0	11	11.0	0	0	5	2	0	2	0	9	11.6
17:30 - 17:45	0	1	191	23	4	9	0	228	241.1	0	0	1	0	0	0	0	1	1.0	0	0	60	1	0	3	0	64	67.9	0	0	67	6	0	2	1	76	79.6	0	0	7	2	0	0	0	9	9.0	0	0	6	2	0	2	0	10	12.6
17:45 - 18:00	0	0	181	19	2	8	0	210	221.4	0	0	2	1	0	0	0	3	3.0	0	0	78	5	0	4	0	87	92.2	0	0	59	7	0	0	0	66	66.0	0	0	7	4	0	0	0	11	11.0	0	0	7	3	0	1	0	11	12.3
Hourly Total	**0**	**1**	**831**	**94**	**19**	**53**	**1**	**999**	**1077.8**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**285**	**24**	**2**	**12**	**0**	**323**	**339.6**	**0**	**0**	**219**	**23**	**5**	**7**	**2**	**256**	**269.6**	**0**	**0**	**30**	**10**	**0**	**1**	**0**	**41**	**42.3**	**0**	**0**	**26**	**9**	**1**	**6**	**0**	**42**	**50.3**
18:00 - 18:15	0	1	172	14	5	11	1	204	221.2	0	0	1	0	0	0	0	1	1.0	0	0	86	12	0	0	0	98	98.0	0	1	63	10	0	2	0	76	78.0	0	0	6	2	0	0	0	8	8.0	0	0	8	1	0	1	0	10	11.3
18:15 - 18:30	0	0	106	11	1	6	0	124	132.3	0	0	0	0	0	0	0	0	0.0	0	0	64	5	6	0	0	75	78.0	0	0	57	4	0	0	0	61	61.0	0	0	5	0	0	0	0	5	5.0	0	0	6	1	0	0	0	7	7.0
18:30 - 18:45	0	0	115	7	1	5	0	128	135.0	0	0	2	0	0	0	0	2	2.0	0	0	49	3	0	0	0	52	52.0	0	0	67	4	0	3	1	75	79.9	0	0	4	2	0	0	0	6	6.0	0	0	8	3	0	1	0	12	13.3
18:45 - 19:00	0	0	114	13	2	6	0	135	143.8	0	0	0	0	0	0	0	0	0.0	0	0	41	3	1	5	0	50	57.0	0	0	36	3	3	2	1	45	50.1	0	0	5	1	0	1	0	7	8.3	0	0	6	1	0	1	0	8	9.3
Hourly Total	**0**	**1**	**507**	**45**	**9**	**28**	**1**	**591**	**632.3**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**240**	**23**	**7**	**5**	**0**	**275**	**285.0**	**0**	**1**	**223**	**21**	**3**	**7**	**2**	**257**	**269.0**	**0**	**0**	**20**	**5**	**0**	**1**	**0**	**26**	**27.3**	**0**	**0**	**28**	**6**	**0**	**3**	**0**	**37**	**40.9**
TOTAL	**0**	**3**	**2019**	**291**	**65**	**127**	**3**	**2508**	**2706.8**	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**13.0**	**0**	**0**	**887**	**95**	**21**	**33**	**0**	**1036**	**1089.4**	**0**	**1**	**620**	**80**	**12**	**24**	**4**	**741**	**781.6**	**0**	**0**	**74**	**24**	**1**	**2**	**0**	**101**	**104.1**	**0**	**0**	**80**	**24**	**5**	**16**	**0**	**125**	**148.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: A50

	To Hilton Hotel Lane								To M1 J24 (N)								To A453 (N)								To Derby Road								To M1 J24 (S)								To A453 (S)							
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Thursday 3rd November 2022
Junction: 5
Approach: Hilton Hotel Lane

	To M1 J24 (N)									To A453 (N)									To Derby Road									To M1 J24 (S)									To A453 (S)									To A50								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	2	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0
07:30 - 07:45	0	0	1	0	0	0	0	1	1.0	0	0	15	0	0	0	0	15	15.0	0	0	1	0	0	0	0	1	1.0	0	0	5	0	0	0	0	5	5.0	0	0	5	0	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	2	0	0	0	0	2	2.0	0	0	10	3	0	0	0	13	13.0	0	0	2	1	0	0	0	3	3.0	0	0	4	0	0	0	0	4	4.0	0	0	2	1	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0
Hourly Total	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**27**	**4**	**0**	**0**	**0**	**31**	**31.0**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**11**	**1**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**5.0**
08:00 - 08:15	0	0	1	0	0	0	0	1	1.0	0	0	20	1	0	0	0	21	21.0	0	0	3	1	0	0	0	4	4.0	0	0	7	1	0	0	0	8	8.0	0	0	2	1	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	1	0	0	0	0	1	1.0	0	1	10	3	0	0	0	14	13.4	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0	0	0	6	0	0	0	0	6	6.0	0	0	2	2	0	0	0	4	4.0
08:30 - 08:45	0	0	1	0	0	0	0	1	1.0	0	0	9	0	0	0	0	9	9.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	2	5	0	0	0	7	7.0
08:45 - 09:00	0	0	2	2	0	0	0	4	4.0	0	0	1	1	0	0	0	2	2.0	0	1	2	0	0	0	0	3	2.4	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0
Hourly Total	**0**	**0**	**5**	**2**	**0**	**0**	**0**	**7**	**7.0**	**0**	**1**	**40**	**5**	**0**	**0**	**0**	**46**	**45.4**	**0**	**1**	**7**	**1**	**0**	**0**	**0**	**9**	**8.4**	**0**	**0**	**16**	**2**	**0**	**0**	**0**	**18**	**18.0**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**7**	**9**	**0**	**0**	**0**	**16**	**16.0**
09:00 - 09:15	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	1	1	1	0	0	3	3.5	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
09:30 - 09:45	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**5**	**2**	**1**	**0**	**0**	**8**	**8.5**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**
TOTAL	**0**	**0**	**12**	**4**	**0**	**0**	**0**	**16**	**16.0**	**0**	**1**	**72**	**11**	**1**	**0**	**0**	**85**	**84.9**	**0**	**1**	**13**	**2**	**0**	**0**	**0**	**16**	**15.4**	**0**	**0**	**32**	**2**	**0**	**0**	**0**	**34**	**34.0**	**0**	**0**	**30**	**2**	**0**	**0**	**0**	**32**	**32.0**	**0**	**0**	**15**	**11**	**0**	**0**	**0**	**26**	**26.0**
16:00 - 16:15	0	0	8	1	0	0	0	9	9.0	0	0	5	0	0	0	0	5	5.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0
16:15 - 16:30	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0
16:30 - 16:45	0	0	6	0	0	0	0	6	6.0	0	0	12	0	0	0	0	12	12.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	5	1	0	0	0	6	6.0	0	0	9	0	0	0	0	9	9.0	0	0	4	0	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**21**	**2**	**0**	**0**	**0**	**23**	**23.0**	**0**	**0**	**28**	**0**	**0**	**0**	**0**	**28**	**28.0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**9**	**9.0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**7**	**7.0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**6.0**
17:00 - 17:15	0	0	7	0	0	0	0	7	7.0	0	0	9	0	0	0	0	9	9.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0
17:15 - 17:30	0	0	4	1	0	0	0	5	5.0	0	0	6	1	0	0	0	7	7.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0
17:30 - 17:45	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**14**	**1**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**19**	**1**	**0**	**0**	**0**	**20**	**20.0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**11**	**11.0**
18:00 - 18:15	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**9**	**1**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**
TOTAL	**0**	**0**	**44**	**4**	**0**	**0**	**0**	**48**	**48.0**	**0**	**0**	**52**	**1**	**0**	**0**	**0**	**53**	**53.0**	**0**	**0**	**24**	**0**	**0**	**0**	**0**	**24**	**24.0**	**0**	**0**	**23**	**0**	**0**	**0**	**0**	**23**	**23.0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**16**	**16.0**	**0**	**0**	**16**	**2**	**0**	**0**	**0**	**18**	**18.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 5 – A453/Grimes Gate Priority Junction Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 3
Approach: A453 East

	To Grimes Gate				To A453 (W)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	4	0	4	4.0	50	7	57	66.1
07:15 - 07:30	2	1	3	4.3	55	8	63	73.4
07:30 - 07:45	5	0	5	5.0	53	5	58	64.5
07:45 - 08:00	6	0	6	6.0	63	11	74	88.3
Hourly Total	**17**	**1**	**18**	**19.3**	**221**	**31**	**252**	**292.3**
08:00 - 08:15	4	0	4	4.0	61	9	70	81.7
08:15 - 08:30	5	0	5	5.0	57	6	63	70.8
08:30 - 08:45	7	1	8	9.3	92	11	103	117.3
08:45 - 09:00	3	1	4	5.3	75	6	81	88.8
Hourly Total	**19**	**2**	**21**	**23.6**	**285**	**32**	**317**	**358.6**
09:00 - 09:15	7	0	7	7.0	46	7	53	62.1
09:15 - 09:30	6	0	6	6.0	53	6	59	66.8
09:30 - 09:45	7	1	8	9.3	31	5	36	42.5
09:45 - 10:00	2	1	3	4.3	41	9	50	61.7
Hourly Total	**22**	**2**	**24**	**26.6**	**171**	**27**	**198**	**233.1**
TOTAL	**58**	**5**	**63**	**69.5**	**677**	**90**	**767**	**884.0**
16:00 - 16:15	21	0	21	21.0	86	9	95	106.7
16:15 - 16:30	12	0	12	12.0	63	7	70	79.1
16:30 - 16:45	9	0	9	9.0	75	4	79	84.2
16:45 - 17:00	9	2	11	13.6	78	7	85	94.1
Hourly Total	**51**	**2**	**53**	**55.6**	**302**	**27**	**329**	**364.1**
17:00 - 17:15	15	2	17	19.6	80	6	86	93.8
17:15 - 17:30	20	0	20	20.0	90	6	96	103.8
17:30 - 17:45	20	0	20	20.0	98	6	104	111.8
17:45 - 18:00	15	0	15	15.0	92	6	98	105.8
Hourly Total	**70**	**2**	**72**	**74.6**	**360**	**24**	**384**	**415.2**
18:00 - 18:15	8	1	9	10.3	78	2	80	82.6
18:15 - 18:30	16	0	16	16.0	79	4	83	88.2
18:30 - 18:45	7	1	8	9.3	99	5	104	110.5
18:45 - 19:00	11	0	11	11.0	77	3	80	83.9
Hourly Total	**42**	**2**	**44**	**46.6**	**333**	**14**	**347**	**365.2**
TOTAL	**163**	**6**	**169**	**176.8**	**995**	**65**	**1060**	**1144.5**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 3
Approach: Grimes Gate

	To A453 (W)				To A453 (E)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	0	0	0	0.0	12	0	12	12.0
07:15 - 07:30	0	0	0	0.0	15	1	16	17.3
07:30 - 07:45	1	0	1	1.0	15	0	15	15.0
07:45 - 08:00	4	0	4	4.0	21	1	22	23.3
Hourly Total	**5**	**0**	**5**	**5.0**	**63**	**2**	**65**	**67.6**
08:00 - 08:15	0	0	0	0.0	9	0	9	9.0
08:15 - 08:30	1	0	1	1.0	17	0	17	17.0
08:30 - 08:45	2	0	2	2.0	15	1	16	17.3
08:45 - 09:00	7	0	7	7.0	14	0	14	14.0
Hourly Total	**10**	**0**	**10**	**10.0**	**55**	**1**	**56**	**57.3**
09:00 - 09:15	1	0	1	1.0	5	0	5	5.0
09:15 - 09:30	3	0	3	3.0	11	0	11	11.0
09:30 - 09:45	1	0	1	1.0	8	1	9	10.3
09:45 - 10:00	1	1	2	3.3	5	2	7	9.6
Hourly Total	**6**	**1**	**7**	**8.3**	**29**	**3**	**32**	**35.9**
TOTAL	**21**	**1**	**22**	**23.3**	**147**	**6**	**153**	**160.8**
16:00 - 16:15	1	0	1	1.0	5	0	5	5.0
16:15 - 16:30	3	0	3	3.0	4	0	4	4.0
16:30 - 16:45	0	0	0	0.0	3	0	3	3.0
16:45 - 17:00	1	0	1	1.0	9	1	10	11.3
Hourly Total	**5**	**0**	**5**	**5.0**	**21**	**1**	**22**	**23.3**
17:00 - 17:15	2	0	2	2.0	7	0	7	7.0
17:15 - 17:30	3	0	3	3.0	4	0	4	4.0
17:30 - 17:45	3	0	3	3.0	11	0	11	11.0
17:45 - 18:00	1	0	1	1.0	6	0	6	6.0
Hourly Total	**9**	**0**	**9**	**9.0**	**28**	**0**	**28**	**28.0**
18:00 - 18:15	1	0	1	1.0	10	1	11	12.3
18:15 - 18:30	3	0	3	3.0	6	0	6	6.0
18:30 - 18:45	1	0	1	1.0	7	0	7	7.0
18:45 - 19:00	2	0	2	2.0	4	0	4	4.0
Hourly Total	**7**	**0**	**7**	**7.0**	**27**	**1**	**28**	**29.3**
TOTAL	**21**	**0**	**21**	**21.0**	**76**	**2**	**78**	**80.6**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 3
Approach: A453 West

	To A453 (E)				To Grimes Gate			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	67	12	79	94.6	1	0	1	1.0
07:15 - 07:30	99	16	115	135.8	0	0	0	0.0
07:30 - 07:45	121	13	134	150.9	2	0	2	2.0
07:45 - 08:00	132	8	140	150.4	1	0	1	1.0
Hourly Total	**419**	**49**	**468**	**531.7**	**4**	**0**	**4**	**4.0**
08:00 - 08:15	116	9	125	136.7	3	0	3	3.0
08:15 - 08:30	98	10	108	121.0	1	0	1	1.0
08:30 - 08:45	80	16	96	116.8	7	0	7	7.0
08:45 - 09:00	74	9	83	94.7	2	0	2	2.0
Hourly Total	**368**	**44**	**412**	**469.2**	**13**	**0**	**13**	**13.0**
09:00 - 09:15	61	8	69	79.4	0	0	0	0.0
09:15 - 09:30	42	13	55	71.9	0	0	0	0.0
09:30 - 09:45	38	15	53	72.5	2	0	2	2.0
09:45 - 10:00	42	8	50	60.4	1	0	1	1.0
Hourly Total	**183**	**44**	**227**	**284.2**	**3**	**0**	**3**	**3.0**
TOTAL	**970**	**137**	**1107**	**1285.1**	**20**	**0**	**20**	**20.0**
16:00 - 16:15	69	8	77	87.4	3	0	3	3.0
16:15 - 16:30	60	5	65	71.5	3	0	3	3.0
16:30 - 16:45	93	2	95	97.6	3	0	3	3.0
16:45 - 17:00	45	2	47	49.6	3	0	3	3.0
Hourly Total	**267**	**17**	**284**	**306.1**	**12**	**0**	**12**	**12.0**
17:00 - 17:15	76	2	78	80.6	5	0	5	5.0
17:15 - 17:30	52	7	59	68.1	1	0	1	1.0
17:30 - 17:45	97	4	101	106.2	3	0	3	3.0
17:45 - 18:00	63	2	65	67.6	3	0	3	3.0
Hourly Total	**288**	**15**	**303**	**322.5**	**12**	**0**	**12**	**12.0**
18:00 - 18:15	51	3	54	57.9	1	0	1	1.0
18:15 - 18:30	40	2	42	44.6	2	0	2	2.0
18:30 - 18:45	32	5	37	43.5	1	0	1	1.0
18:45 - 19:00	32	2	34	36.6	3	0	3	3.0
Hourly Total	**155**	**12**	**167**	**182.6**	**7**	**0**	**7**	**7.0**
TOTAL	**710**	**44**	**754**	**811.2**	**31**	**0**	**31**	**31.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 6 – A453/The Green Priority Junction Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Wednesdsay 23rd November 2022
Junction: 2
Approach: A453 East

	To The Green				To A453 (W)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	3	0	3	3.0	47	7	54	63.1
07:15 - 07:30	1	0	1	1.0	54	8	62	72.4
07:30 - 07:45	0	0	0	0.0	54	5	59	65.5
07:45 - 08:00	0	1	1	2.3	67	10	77	90.0
Hourly Total	**4**	**1**	**5**	**6.3**	**222**	**30**	**252**	**291.0**
08:00 - 08:15	2	0	2	2.0	59	9	68	79.7
08:15 - 08:30	8	0	8	8.0	50	6	56	63.8
08:30 - 08:45	11	0	11	11.0	83	11	94	108.3
08:45 - 09:00	4	0	4	4.0	78	6	84	91.8
Hourly Total	**25**	**0**	**25**	**25.0**	**270**	**32**	**302**	**343.6**
09:00 - 09:15	2	0	2	2.0	45	7	52	61.1
09:15 - 09:30	4	0	4	4.0	52	6	58	65.8
09:30 - 09:45	0	0	0	0.0	32	5	37	43.5
09:45 - 10:00	3	0	3	3.0	39	10	49	62.0
Hourly Total	**9**	**0**	**9**	**9.0**	**168**	**28**	**196**	**232.4**
TOTAL	**38**	**1**	**39**	**40.3**	**660**	**90**	**750**	**867.0**
16:00 - 16:15	7	0	7	7.0	80	9	89	100.7
16:15 - 16:30	0	1	1	2.3	66	6	72	79.8
16:30 - 16:45	3	0	3	3.0	72	4	76	81.2
16:45 - 17:00	5	0	5	5.0	74	7	81	90.1
Hourly Total	**15**	**1**	**16**	**17.3**	**292**	**26**	**318**	**351.8**
17:00 - 17:15	2	0	2	2.0	80	6	86	93.8
17:15 - 17:30	4	0	4	4.0	89	6	95	102.8
17:30 - 17:45	3	0	3	3.0	98	6	104	111.8
17:45 - 18:00	3	0	3	3.0	90	6	96	103.8
Hourly Total	**12**	**0**	**12**	**12.0**	**357**	**24**	**381**	**412.2**
18:00 - 18:15	3	0	3	3.0	76	2	78	80.6
18:15 - 18:30	0	0	0	0.0	82	4	86	91.2
18:30 - 18:45	1	0	1	1.0	99	5	104	110.5
18:45 - 19:00	3	0	3	3.0	76	3	79	82.9
Hourly Total	**7**	**0**	**7**	**7.0**	**333**	**14**	**347**	**365.2**
TOTAL	**34**	**1**	**35**	**36.3**	**982**	**64**	**1046**	**1129.2**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesdsay 23rd November 2022
Junction: 2
Approach: The Green

	To A453 (W)				To A453 (E)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	6	1	7	8.3	2	0	2	2.0
07:15 - 07:30	10	0	10	10.0	3	0	3	3.0
07:30 - 07:45	17	0	17	17.0	6	0	6	6.0
07:45 - 08:00	18	0	18	18.0	2	1	3	4.3
Hourly Total	**51**	**1**	**52**	**53.3**	**13**	**1**	**14**	**15.3**
08:00 - 08:15	16	0	16	16.0	3	0	3	3.0
08:15 - 08:30	34	0	34	34.0	5	0	5	5.0
08:30 - 08:45	23	2	25	27.6	2	0	2	2.0
08:45 - 09:00	22	0	22	22.0	3	0	3	3.0
Hourly Total	**95**	**2**	**97**	**99.6**	**13**	**0**	**13**	**13.0**
09:00 - 09:15	10	1	11	12.3	1	0	1	1.0
09:15 - 09:30	9	0	9	9.0	2	0	2	2.0
09:30 - 09:45	6	0	6	6.0	1	0	1	1.0
09:45 - 10:00	11	2	13	15.6	2	0	2	2.0
Hourly Total	**36**	**3**	**39**	**42.9**	**6**	**0**	**6**	**6.0**
TOTAL	**182**	**6**	**188**	**195.8**	**32**	**1**	**33**	**34.3**
16:00 - 16:15	20	0	20	20.0	2	0	2	2.0
16:15 - 16:30	16	0	16	16.0	2	0	2	2.0
16:30 - 16:45	16	0	16	16.0	4	0	4	4.0
16:45 - 17:00	19	1	20	21.3	1	0	1	1.0
Hourly Total	**71**	**1**	**72**	**73.3**	**9**	**0**	**9**	**9.0**
17:00 - 17:15	11	0	11	11.0	5	0	5	5.0
17:15 - 17:30	14	0	14	14.0	2	0	2	2.0
17:30 - 17:45	15	0	15	15.0	3	0	3	3.0
17:45 - 18:00	18	0	18	18.0	4	0	4	4.0
Hourly Total	**58**	**0**	**58**	**58.0**	**14**	**0**	**14**	**14.0**
18:00 - 18:15	13	1	14	15.3	2	0	2	2.0
18:15 - 18:30	8	0	8	8.0	2	0	2	2.0
18:30 - 18:45	10	0	10	10.0	1	0	1	1.0
18:45 - 19:00	9	0	9	9.0	2	0	2	2.0
Hourly Total	**40**	**1**	**41**	**42.3**	**7**	**0**	**7**	**7.0**
TOTAL	**169**	**2**	**171**	**173.6**	**30**	**0**	**30**	**30.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesdsay 23rd November 2022
Junction: 2
Approach: A453 West

	To A453 (E)				To The Green			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	66	12	78	93.6	10	1	11	12.3
07:15 - 07:30	96	16	112	132.8	27	0	27	27.0
07:30 - 07:45	117	13	130	146.9	17	0	17	17.0
07:45 - 08:00	131	7	138	147.1	16	1	17	18.3
Hourly Total	**410**	**48**	**458**	**520.4**	**70**	**2**	**72**	**74.6**
08:00 - 08:15	116	9	125	136.7	14	1	15	16.3
08:15 - 08:30	94	10	104	117.0	22	0	22	22.0
08:30 - 08:45	85	16	101	121.8	12	0	12	12.0
08:45 - 09:00	73	9	82	93.7	18	1	19	20.3
Hourly Total	**368**	**44**	**412**	**469.2**	**66**	**2**	**68**	**70.6**
09:00 - 09:15	60	8	68	78.4	7	0	7	7.0
09:15 - 09:30	40	13	53	69.9	6	0	6	6.0
09:30 - 09:45	39	15	54	73.5	6	0	6	6.0
09:45 - 10:00	41	8	49	59.4	4	1	5	6.3
Hourly Total	**180**	**44**	**224**	**281.2**	**23**	**1**	**24**	**25.3**
TOTAL	**958**	**136**	**1094**	**1270.8**	**159**	**5**	**164**	**170.5**
16:00 - 16:15	70	8	78	88.4	33	0	33	33.0
16:15 - 16:30	61	5	66	72.5	15	0	15	15.0
16:30 - 16:45	92	2	94	96.6	30	0	30	30.0
16:45 - 17:00	47	2	49	51.6	28	0	28	28.0
Hourly Total	**270**	**17**	**287**	**309.1**	**106**	**0**	**106**	**106.0**
17:00 - 17:15	76	2	78	80.6	28	0	28	28.0
17:15 - 17:30	51	7	58	67.1	22	0	22	22.0
17:30 - 17:45	97	4	101	106.2	37	0	37	37.0
17:45 - 18:00	62	2	64	66.6	17	0	17	17.0
Hourly Total	**286**	**15**	**301**	**320.5**	**104**	**0**	**104**	**104.0**
18:00 - 18:15	50	3	53	56.9	14	0	14	14.0
18:15 - 18:30	40	2	42	44.6	9	0	9	9.0
18:30 - 18:45	32	5	37	43.5	5	0	5	5.0
18:45 - 19:00	33	2	35	37.6	8	0	8	8.0
Hourly Total	**155**	**12**	**167**	**182.6**	**36**	**0**	**36**	**36.0**
TOTAL	**711**	**44**	**755**	**812.2**	**246**	**0**	**246**	**246.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 7 – A453/East Midlands Airport Signal Junction Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 2
Approach: East Midlands Airport Access

	Left to A453 (E)									Right to A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	33	0	0	0	0	33	33.0	0	0	9	5	0	0	0	14	14.0
07:15 - 07:30	0	0	34	4	1	0	0	39	39.5	0	0	7	1	1	0	1	10	11.5
07:30 - 07:45	0	0	19	0	0	0	0	19	19.0	0	0	6	3	0	0	0	9	9.0
07:45 - 08:00	0	0	17	3	1	1	0	22	23.8	0	0	6	4	0	0	0	10	10.0
Hourly Total	**0**	**0**	**103**	**7**	**2**	**1**	**0**	**113**	**115.3**	**0**	**0**	**28**	**13**	**1**	**0**	**1**	**43**	**44.5**
08:00 - 08:15	0	0	23	4	1	0	0	28	28.5	0	0	10	1	0	0	0	11	11.0
08:15 - 08:30	0	0	35	3	1	1	0	40	41.8	0	0	3	2	0	1	1	7	9.3
08:30 - 08:45	0	0	23	1	0	0	1	25	26.0	0	0	4	1	1	0	0	6	6.5
08:45 - 09:00	0	0	14	2	0	1	1	18	20.3	0	0	2	0	0	1	0	3	4.3
Hourly Total	**0**	**0**	**95**	**10**	**2**	**2**	**2**	**111**	**116.6**	**0**	**0**	**19**	**4**	**1**	**2**	**1**	**27**	**31.1**
09:00 - 09:15	0	0	9	0	1	0	0	10	10.5	0	0	5	0	0	0	0	5	5.0
09:15 - 09:30	0	0	5	0	1	0	0	6	6.5	0	0	3	2	0	0	1	6	7.0
09:30 - 09:45	0	0	7	2	1	0	0	10	10.5	0	0	2	0	1	1	0	4	5.8
09:45 - 10:00	0	0	8	3	0	0	0	11	11.0	0	0	1	2	0	1	0	4	5.3
Hourly Total	**0**	**0**	**29**	**5**	**3**	**0**	**0**	**37**	**38.5**	**0**	**0**	**11**	**4**	**1**	**2**	**1**	**19**	**23.1**
TOTAL	**0**	**0**	**227**	**22**	**7**	**3**	**2**	**261**	**270.4**	**0**	**0**	**58**	**21**	**3**	**4**	**3**	**89**	**98.7**
16:00 - 16:15	0	0	66	4	1	0	0	71	71.5	0	0	25	4	1	0	0	30	30.5
16:15 - 16:30	0	0	55	5	0	0	0	60	60.0	0	0	18	6	0	0	0	24	24.0
16:30 - 16:45	0	0	60	5	0	0	0	65	65.0	0	0	26	2	0	0	1	29	30.0
16:45 - 17:00	0	0	69	7	0	0	1	77	78.0	0	0	8	2	0	0	0	10	10.0
Hourly Total	**0**	**0**	**250**	**21**	**1**	**0**	**1**	**273**	**274.5**	**0**	**0**	**77**	**14**	**1**	**0**	**1**	**93**	**94.5**
17:00 - 17:15	0	0	57	3	0	0	1	61	62.0	0	0	18	4	0	0	0	22	22.0
17:15 - 17:30	0	0	27	0	1	0	0	28	28.5	0	0	15	2	0	0	0	17	17.0
17:30 - 17:45	0	0	64	6	0	0	0	70	70.0	0	0	15	0	0	0	0	15	15.0
17:45 - 18:00	0	0	59	4	0	0	0	63	63.0	0	0	10	1	0	0	0	11	11.0
Hourly Total	**0**	**0**	**207**	**13**	**1**	**0**	**1**	**222**	**223.5**	**0**	**0**	**58**	**7**	**0**	**0**	**0**	**65**	**65.0**
18:00 - 18:15	0	0	49	5	0	0	0	54	54.0	0	1	12	2	0	0	1	16	16.4
18:15 - 18:30	0	0	47	6	0	0	0	53	53.0	0	0	6	1	0	0	0	7	7.0
18:30 - 18:45	0	0	44	6	0	0	0	50	50.0	0	0	4	1	0	0	1	6	7.0
18:45 - 19:00	0	0	20	0	0	1	0	21	22.3	0	0	10	2	1	0	0	13	13.5
Hourly Total	**0**	**0**	**160**	**17**	**0**	**1**	**0**	**178**	**179.3**	**0**	**1**	**32**	**6**	**1**	**0**	**2**	**42**	**43.9**
TOTAL	**0**	**0**	**617**	**51**	**2**	**1**	**2**	**673**	**677.3**	**0**	**1**	**167**	**27**	**2**	**0**	**3**	**200**	**203.4**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 2
Approach: A453 East

	Ahead to A453 (W)									Right to East Midlands Airport Access								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	59	12	6	4	0	81	89.2	0	0	65	6	1	0	0	72	72.5
07:15 - 07:30	0	0	36	16	5	3	0	60	66.4	0	0	65	12	1	0	0	78	78.5
07:30 - 07:45	0	0	78	10	2	7	0	97	107.1	0	0	63	5	0	0	0	68	68.0
07:45 - 08:00	0	0	47	10	5	5	1	68	78.0	0	0	57	6	0	0	0	63	63.0
Hourly Total	**0**	**0**	**220**	**48**	**18**	**19**	**1**	**306**	**340.7**	**0**	**0**	**250**	**29**	**2**	**0**	**0**	**281**	**282.0**
08:00 - 08:15	0	0	56	16	3	5	0	80	88.0	0	0	52	3	0	0	0	55	55.0
08:15 - 08:30	0	0	81	14	2	9	0	106	118.7	0	0	51	2	1	0	0	54	54.5
08:30 - 08:45	0	0	72	18	7	4	0	101	109.7	0	0	55	2	1	2	2	62	67.1
08:45 - 09:00	0	0	67	15	4	4	0	90	97.2	0	0	30	2	0	0	0	32	32.0
Hourly Total	**0**	**0**	**276**	**63**	**16**	**22**	**0**	**377**	**413.6**	**0**	**0**	**188**	**9**	**2**	**2**	**2**	**203**	**208.6**
09:00 - 09:15	0	0	55	8	7	4	1	75	84.7	0	0	22	3	0	0	0	25	25.0
09:15 - 09:30	0	0	37	11	6	3	0	57	63.9	0	0	23	4	1	2	0	30	33.1
09:30 - 09:45	0	1	25	8	4	7	0	45	55.5	0	0	32	1	0	0	0	33	33.0
09:45 - 10:00	0	2	22	10	5	9	1	49	63.0	0	0	21	2	1	1	0	25	26.8
Hourly Total	**0**	**3**	**139**	**37**	**22**	**23**	**2**	**226**	**267.1**	**0**	**0**	**98**	**10**	**2**	**3**	**0**	**113**	**117.9**
TOTAL	**0**	**3**	**635**	**148**	**56**	**64**	**3**	**909**	**1021.4**	**0**	**0**	**536**	**48**	**6**	**5**	**2**	**597**	**608.5**
16:00 - 16:15	0	0	75	9	2	7	0	93	103.1	0	0	37	5	1	0	0	43	43.5
16:15 - 16:30	0	0	62	10	1	8	0	81	91.9	0	0	27	3	0	0	1	31	32.0
16:30 - 16:45	0	0	74	21	3	4	0	102	108.7	0	0	30	3	0	0	0	33	33.0
16:45 - 17:00	0	0	86	19	2	3	0	110	114.9	0	0	42	8	0	0	2	52	54.0
Hourly Total	**0**	**0**	**297**	**59**	**8**	**22**	**0**	**386**	**418.6**	**0**	**0**	**136**	**19**	**1**	**0**	**3**	**159**	**162.5**
17:00 - 17:15	0	2	102	11	4	2	0	121	124.4	0	0	32	1	0	0	0	33	33.0
17:15 - 17:30	0	0	87	15	5	4	0	111	118.7	0	0	32	1	1	1	0	35	36.8
17:30 - 17:45	0	0	86	12	2	2	0	102	105.6	0	0	21	2	1	0	0	24	24.5
17:45 - 18:00	0	0	73	9	3	1	0	86	88.8	0	0	32	4	1	0	0	37	37.5
Hourly Total	**0**	**2**	**348**	**47**	**14**	**9**	**0**	**420**	**437.5**	**0**	**0**	**117**	**8**	**3**	**1**	**0**	**129**	**131.8**
18:00 - 18:15	0	0	78	8	2	3	0	91	95.9	0	0	21	4	0	0	0	25	25.0
18:15 - 18:30	0	1	68	8	3	2	0	82	85.5	0	0	36	2	0	0	0	38	38.0
18:30 - 18:45	0	2	51	3	2	2	0	60	62.4	0	0	27	4	0	0	0	31	31.0
18:45 - 19:00	0	0	50	2	2	5	0	59	66.5	0	0	19	3	0	0	0	22	22.0
Hourly Total	**0**	**3**	**247**	**21**	**9**	**12**	**0**	**292**	**310.3**	**0**	**0**	**103**	**13**	**0**	**0**	**0**	**116**	**116.0**
TOTAL	**0**	**5**	**892**	**127**	**31**	**43**	**0**	**1098**	**1166.4**	**0**	**0**	**356**	**40**	**4**	**1**	**3**	**404**	**410.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 2
Approach: A453 West

	Left to East Midlands Airport Access									Ahead to A453 (E				
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1
07:00 - 07:15	0	0	18	2	0	0	0	20	20.0	0	0	34	12	3
07:15 - 07:30	0	0	18	1	0	0	1	20	21.0	0	2	74	18	5
07:30 - 07:45	0	0	26	5	0	0	0	31	31.0	0	1	84	17	5
07:45 - 08:00	0	0	31	6	0	1	0	38	39.3	0	0	111	14	4
Hourly Total	**0**	**0**	**93**	**14**	**0**	**1**	**1**	**109**	**111.3**	**0**	**3**	**303**	**61**	**17**
08:00 - 08:15	0	0	24	6	0	0	0	30	30.0	0	0	90	22	2
08:15 - 08:30	0	0	28	1	0	0	0	29	29.0	0	0	94	25	5
08:30 - 08:45	0	0	20	1	2	0	1	24	26.0	0	0	50	19	5
08:45 - 09:00	0	0	18	1	0	0	0	19	19.0	0	0	59	8	4
Hourly Total	**0**	**0**	**90**	**9**	**2**	**0**	**1**	**102**	**104.0**	**0**	**0**	**293**	**74**	**16**
09:00 - 09:15	0	0	11	0	0	0	0	11	11.0	0	0	50	8	8
09:15 - 09:30	0	0	7	1	0	1	0	9	10.3	0	1	36	11	3
09:30 - 09:45	0	0	4	2	1	0	1	8	9.5	0	0	22	9	5
09:45 - 10:00	0	0	9	3	0	0	0	12	12.0	0	0	35	7	2
Hourly Total	**0**	**0**	**31**	**6**	**1**	**1**	**1**	**40**	**42.8**	**0**	**1**	**143**	**35**	**18**
TOTAL	**0**	**0**	**214**	**29**	**3**	**2**	**3**	**251**	**258.1**	**0**	**4**	**739**	**170**	**51**
16:00 - 16:15	0	0	6	1	1	0	0	8	8.5	0	0	46	14	4
16:15 - 16:30	0	0	11	3	0	0	0	14	14.0	0	0	45	12	5
16:30 - 16:45	0	0	10	2	1	0	0	13	13.5	0	0	66	12	2
16:45 - 17:00	0	0	8	3	0	0	1	12	13.0	0	0	59	10	0
Hourly Total	**0**	**0**	**35**	**9**	**2**	**0**	**1**	**47**	**49.0**	**0**	**0**	**216**	**48**	**11**
17:00 - 17:15	0	0	9	0	0	0	0	9	9.0	0	0	85	8	1
17:15 - 17:30	0	0	6	1	0	0	0	7	7.0	0	0	54	4	0
17:30 - 17:45	0	0	9	0	0	0	1	10	11.0	0	0	76	6	2
17:45 - 18:00	0	0	11	1	0	0	1	13	14.0	0	0	81	3	1
Hourly Total	**0**	**0**	**35**	**2**	**0**	**0**	**2**	**39**	**41.0**	**0**	**0**	**296**	**21**	**4**
18:00 - 18:15	0	0	6	0	0	0	0	6	6.0	0	0	50	4	1
18:15 - 18:30	0	0	6	2	0	0	0	8	8.0	0	0	38	2	2
18:30 - 18:45	0	0	6	1	0	0	0	7	7.0	0	1	19	0	0
18:45 - 19:00	0	0	9	2	1	0	0	12	12.5	0	0	40	7	1
Hourly Total	**0**	**0**	**27**	**5**	**1**	**0**	**0**	**33**	**33.5**	**0**	**1**	**147**	**13**	**4**
TOTAL	**0**	**0**	**97**	**16**	**3**	**0**	**3**	**119**	**123.5**	**0**	**1**	**659**	**82**	**19**

APPENDIX 8 – A453/East Midlands Airport Roundabout Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: Northern Arm

	To A453 (E)				To A453 (W)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	21	3	24	27.9	13	4	17	22.2
07:15 - 07:30	10	3	13	16.9	12	1	13	14.3
07:30 - 07:45	8	4	12	17.2	4	6	10	17.8
07:45 - 08:00	11	4	15	20.2	7	5	12	18.5
Hourly Total	**50**	**14**	**64**	**82.2**	**36**	**16**	**52**	**72.8**
08:00 - 08:15	13	1	14	15.3	13	2	15	17.6
08:15 - 08:30	10	2	12	14.6	4	3	7	10.9
08:30 - 08:45	5	3	8	11.9	9	4	13	18.2
08:45 - 09:00	5	2	7	9.6	8	4	12	17.2
Hourly Total	**33**	**8**	**41**	**51.4**	**34**	**13**	**47**	**63.9**
09:00 - 09:15	5	2	7	9.6	5	4	9	14.2
09:15 - 09:30	1	5	6	12.5	6	1	7	8.3
09:30 - 09:45	5	5	10	16.5	10	2	12	14.6
09:45 - 10:00	5	3	8	11.9	7	2	9	11.6
Hourly Total	**16**	**15**	**31**	**50.5**	**28**	**9**	**37**	**48.7**
TOTAL	**99**	**37**	**136**	**184.1**	**98**	**38**	**136**	**185.4**
16:00 - 16:15	22	6	28	35.8	55	2	57	59.6
16:15 - 16:30	5	4	9	14.2	40	2	42	44.6
16:30 - 16:45	50	1	51	52.3	64	3	67	70.9
16:45 - 17:00	29	1	30	31.3	47	3	50	53.9
Hourly Total	**106**	**12**	**118**	**133.6**	**206**	**10**	**216**	**229.0**
17:00 - 17:15	31	1	32	33.3	62	1	63	64.3
17:15 - 17:30	18	3	21	24.9	18	3	21	24.9
17:30 - 17:45	67	3	70	73.9	88	2	90	92.6
17:45 - 18:00	28	2	30	32.6	39	1	40	41.3
Hourly Total	**144**	**9**	**153**	**164.7**	**207**	**7**	**214**	**223.1**
18:00 - 18:15	16	2	18	20.6	25	1	26	27.3
18:15 - 18:30	9	1	10	11.3	12	2	14	16.6
18:30 - 18:45	10	2	12	14.6	24	5	29	35.5
18:45 - 19:00	9	2	11	13.6	11	2	13	15.6
Hourly Total	**44**	**7**	**51**	**60.1**	**72**	**10**	**82**	**95.0**
TOTAL	**294**	**28**	**322**	**358.4**	**485**	**27**	**512**	**547.1**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 East

	To A453 (W)				To Northern Arm			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	32	3	35	38.9	19	5	24	30.5
07:15 - 07:30	31	5	36	42.5	31	3	34	37.9
07:30 - 07:45	43	4	47	52.2	28	1	29	30.3
07:45 - 08:00	47	8	55	65.4	38	2	40	42.6
Hourly Total	**153**	**20**	**173**	**199.0**	**116**	**11**	**127**	**141.3**
08:00 - 08:15	48	6	54	61.8	27	3	30	33.9
08:15 - 08:30	67	5	72	78.5	17	1	18	19.3
08:30 - 08:45	62	10	72	85.0	44	3	47	50.9
08:45 - 09:00	67	4	71	76.2	33	2	35	37.6
Hourly Total	**244**	**25**	**269**	**301.5**	**121**	**9**	**130**	**141.7**
09:00 - 09:15	44	4	48	53.2	11	4	15	20.2
09:15 - 09:30	42	4	46	51.2	19	2	21	23.6
09:30 - 09:45	27	1	28	29.3	11	4	15	20.2
09:45 - 10:00	39	7	46	55.1	11	5	16	22.5
Hourly Total	**152**	**16**	**168**	**188.8**	**52**	**15**	**67**	**86.5**
TOTAL	**549**	**61**	**610**	**689.3**	**289**	**35**	**324**	**369.5**
16:00 - 16:15	94	4	98	103.2	6	5	11	17.5
16:15 - 16:30	69	4	73	78.2	11	2	13	15.6
16:30 - 16:45	74	1	75	76.3	12	3	15	18.9
16:45 - 17:00	75	6	81	88.8	14	2	16	18.6
Hourly Total	**312**	**15**	**327**	**346.5**	**43**	**12**	**55**	**70.6**
17:00 - 17:15	77	2	79	81.6	12	4	16	21.2
17:15 - 17:30	92	4	96	101.2	11	2	13	15.6
17:30 - 17:45	85	2	87	89.6	24	4	28	33.2
17:45 - 18:00	88	3	91	94.9	20	3	23	26.9
Hourly Total	**342**	**11**	**353**	**367.3**	**67**	**13**	**80**	**96.9**
18:00 - 18:15	65	2	67	69.6	22	1	23	24.3
18:15 - 18:30	46	1	47	48.3	44	3	47	50.9
18:30 - 18:45	58	0	58	58.0	51	5	56	62.5
18:45 - 19:00	40	0	40	40.0	45	3	48	51.9
Hourly Total	**209**	**3**	**212**	**215.9**	**162**	**12**	**174**	**189.6**
TOTAL	**863**	**29**	**892**	**929.7**	**272**	**37**	**309**	**357.1**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 West

	To Northern Arm				To A453 (E)			
TIME	LIGHT	HEAVY	TOTAL	PCUs	LIGHT	HEAVY	TOTAL	PCUs
07:00 - 07:15	41	3	44	47.9	55	10	65	78.0
07:15 - 07:30	40	4	44	49.2	113	13	126	142.9
07:30 - 07:45	62	5	67	73.5	126	9	135	146.7
07:45 - 08:00	51	3	54	57.9	136	4	140	145.2
Hourly Total	**194**	**15**	**209**	**228.5**	**430**	**36**	**466**	**512.8**
08:00 - 08:15	35	2	37	39.6	117	9	126	137.7
08:15 - 08:30	60	6	66	73.8	106	8	114	124.4
08:30 - 08:45	88	5	93	99.5	92	13	105	121.9
08:45 - 09:00	57	2	59	61.6	86	8	94	104.4
Hourly Total	**240**	**15**	**255**	**274.5**	**401**	**38**	**439**	**488.4**
09:00 - 09:15	31	4	35	40.2	62	6	68	75.8
09:15 - 09:30	19	1	20	21.3	45	8	53	63.4
09:30 - 09:45	24	4	28	33.2	40	10	50	63.0
09:45 - 10:00	13	3	16	19.9	40	6	46	53.8
Hourly Total	**87**	**12**	**99**	**114.6**	**187**	**30**	**217**	**256.0**
TOTAL	**521**	**42**	**563**	**617.6**	**1018**	**104**	**1122**	**1257.2**
16:00 - 16:15	8	1	9	10.3	81	2	83	85.6
16:15 - 16:30	13	0	13	13.0	71	1	72	73.3
16:30 - 16:45	9	4	13	18.2	72	1	73	74.3
16:45 - 17:00	15	4	19	24.2	46	1	47	48.3
Hourly Total	**45**	**9**	**54**	**65.7**	**270**	**5**	**275**	**281.5**
17:00 - 17:15	17	3	20	23.9	73	1	74	75.3
17:15 - 17:30	32	1	33	34.3	55	4	59	64.2
17:30 - 17:45	34	1	35	36.3	67	1	68	69.3
17:45 - 18:00	27	7	34	43.1	51	0	51	51.0
Hourly Total	**110**	**12**	**122**	**137.6**	**246**	**6**	**252**	**259.8**
18:00 - 18:15	27	3	30	33.9	48	1	49	50.3
18:15 - 18:30	35	3	38	41.9	40	1	41	42.3
18:30 - 18:45	69	2	71	73.6	27	3	30	33.9
18:45 - 19:00	49	4	53	58.2	32	0	32	32.0
Hourly Total	**180**	**12**	**192**	**207.6**	**147**	**5**	**152**	**158.5**
TOTAL	**335**	**33**	**368**	**410.9**	**663**	**16**	**679**	**699.8**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3

APPENDIX 9 – A453/Walton Hill Signal Junction Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 1
Approach: Northern Arm

	Left to A453									Right to Walton Hill								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	1	66	9	6	0	1	84	86.6	0	2	27	4	1	0	0	34	33.3
07:15 - 07:30	0	2	66	9	1	0	1	79	79.3	0	0	37	7	1	1	0	46	47.8
07:30 - 07:45	0	1	107	8	2	2	4	124	131.0	0	1	43	12	7	2	0	65	70.5
07:45 - 08:00	0	0	97	12	5	2	3	119	127.1	0	0	48	6	2	1	0	57	59.3
Hourly Total	**1**	**4**	**336**	**38**	**14**	**4**	**9**	**406**	**424.0**	**0**	**3**	**155**	**29**	**11**	**4**	**0**	**202**	**210.9**
08:00 - 08:15	0	0	90	16	3	2	2	113	119.1	0	1	55	13	3	2	0	74	77.5
08:15 - 08:30	0	0	92	7	11	8	1	119	135.9	0	0	51	11	1	5	0	68	75.0
08:30 - 08:45	0	0	86	9	7	3	3	108	118.4	0	1	50	7	2	1	0	61	62.7
08:45 - 09:00	0	1	65	10	1	1	3	81	85.2	0	4	33	5	5	4	0	51	56.3
Hourly Total	**0**	**1**	**333**	**42**	**22**	**14**	**9**	**421**	**458.6**	**0**	**6**	**189**	**36**	**11**	**12**	**0**	**254**	**271.5**
09:00 - 09:15	1	0	26	6	4	1	4	42	48.5	0	0	37	8	4	3	0	52	57.9
09:15 - 09:30	0	1	33	5	2	1	1	43	45.7	2	0	28	7	2	4	0	43	47.6
09:30 - 09:45	0	0	22	3	2	3	3	33	40.9	0	0	28	9	0	1	0	38	39.3
09:45 - 10:00	0	0	19	2	2	0	3	26	30.0	0	0	25	8	4	1	0	38	41.3
Hourly Total	**1**	**1**	**100**	**16**	**10**	**5**	**11**	**144**	**165.1**	**2**	**0**	**118**	**32**	**10**	**9**	**0**	**171**	**186.1**
TOTAL	**2**	**6**	**769**	**96**	**46**	**23**	**29**	**971**	**1047.7**	**2**	**9**	**462**	**97**	**32**	**25**	**0**	**627**	**668.5**
16:00 - 16:15	0	2	42	8	2	2	2	58	62.4	0	0	62	15	5	2	0	84	89.1
16:15 - 16:30	0	2	39	11	2	1	1	56	58.1	1	1	59	12	0	0	0	73	71.6
16:30 - 16:45	0	0	35	5	2	2	1	45	49.6	0	0	68	10	0	1	0	79	80.3
16:45 - 17:00	1	3	37	5	1	1	2	50	51.2	0	1	41	8	0	2	1	53	56.0
Hourly Total	**1**	**7**	**153**	**29**	**7**	**6**	**6**	**209**	**221.3**	**1**	**2**	**230**	**45**	**5**	**5**	**1**	**289**	**297.0**
17:00 - 17:15	0	0	51	9	1	2	2	65	70.1	0	0	81	4	1	2	0	88	91.1
17:15 - 17:30	0	0	43	10	0	1	1	55	57.3	0	0	67	5	0	1	0	73	74.3
17:30 - 17:45	0	0	47	4	0	0	0	51	51.0	1	2	51	9	0	1	0	64	63.3
17:45 - 18:00	1	0	43	1	0	0	3	48	50.2	0	0	56	2	1	0	0	59	59.5
Hourly Total	**1**	**0**	**184**	**24**	**1**	**3**	**6**	**219**	**228.6**	**1**	**2**	**255**	**20**	**2**	**4**	**0**	**284**	**288.2**
18:00 - 18:15	0	0	49	1	0	0	2	52	54.0	0	0	53	4	0	0	0	57	57.0
18:15 - 18:30	0	1	49	9	0	1	2	62	64.7	0	0	45	1	0	0	0	46	46.0
18:30 - 18:45	1	2	64	4	1	1	2	75	76.8	0	0	17	2	2	0	0	21	22.0
18:45 - 19:00	0	0	52	4	1	1	2	60	63.8	0	0	39	3	1	0	0	43	43.5
Hourly Total	**1**	**3**	**214**	**18**	**2**	**3**	**8**	**249**	**259.3**	**0**	**0**	**154**	**10**	**3**	**0**	**0**	**167**	**168.5**
TOTAL	**3**	**10**	**551**	**71**	**10**	**12**	**20**	**677**	**709.2**	**2**	**4**	**639**	**75**	**10**	**9**	**1**	**740**	**753.7**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 1
Approach: A453

	Ahead to Walton Hill									Right to Northern Arm									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	20	4	1	3	0	28	32.4	0	0	19	5	1	0	3	28	31.5
07:15 - 07:30	0	0	25	7	1	3	0	36	40.4	0	0	21	7	4	1	0	33	36.3
07:30 - 07:45	0	0	23	9	4	3	1	40	46.9	0	0	27	5	1	1	2	36	39.8
07:45 - 08:00	0	0	24	8	2	4	0	38	44.2	0	0	35	10	2	3	2	52	58.9
Hourly Total	**0**	**0**	**92**	**28**	**8**	**13**	**1**	**142**	**163.9**	**0**	**0**	**102**	**27**	**8**	**5**	**7**	**149**	**166.5**
08:00 - 08:15	0	0	27	3	1	3	0	34	38.4	0	1	29	14	3	2	3	52	58.5
08:15 - 08:30	0	0	35	4	2	8	0	49	60.4	0	0	34	10	2	3	1	50	55.9
08:30 - 08:45	0	0	38	5	1	4	0	48	53.7	0	1	25	6	3	1	1	37	40.2
08:45 - 09:00	0	0	19	5	1	4	0	29	34.7	0	0	30	10	1	3	2	46	52.4
Hourly Total	**0**	**0**	**119**	**17**	**5**	**19**	**0**	**160**	**187.2**	**0**	**2**	**118**	**40**	**9**	**9**	**7**	**185**	**207.0**
09:00 - 09:15	0	0	28	7	1	3	0	39	43.4	0	0	19	5	5	1	1	31	35.8
09:15 - 09:30	0	0	13	5	4	1	0	23	26.3	0	0	15	5	2	2	2	26	31.6
09:30 - 09:45	0	0	17	3	1	4	0	25	30.7	0	0	25	6	4	0	1	36	39.0
09:45 - 10:00	0	0	10	6	1	6	1	24	33.3	0	2	21	6	2	1	1	33	35.1
Hourly Total	**0**	**0**	**68**	**21**	**7**	**14**	**1**	**111**	**133.7**	**0**	**2**	**80**	**22**	**13**	**4**	**5**	**126**	**141.5**
TOTAL	**0**	**0**	**279**	**66**	**20**	**46**	**2**	**413**	**484.8**	**0**	**4**	**300**	**89**	**30**	**18**	**19**	**460**	**515.0**
16:00 - 16:15	0	1	63	3	3	5	0	75	82.4	0	0	62	4	0	2	2	70	74.6
16:15 - 16:30	0	0	60	7	2	3	1	73	78.9	0	0	57	9	0	2	3	71	76.6
16:30 - 16:45	0	0	92	13	2	3	0	110	114.9	1	0	61	5	1	1	1	70	72.0
16:45 - 17:00	0	0	62	8	0	0	0	70	70.0	0	1	65	3	0	0	2	71	72.4
Hourly Total	**0**	**1**	**277**	**31**	**7**	**11**	**1**	**328**	**346.2**	**1**	**1**	**245**	**21**	**1**	**5**	**8**	**282**	**295.6**
17:00 - 17:15	0	0	78	3	2	1	0	84	86.3	0	2	85	7	0	0	1	95	94.8
17:15 - 17:30	0	0	56	5	0	1	1	63	65.3	0	0	62	8	2	0	2	74	77.0
17:30 - 17:45	0	0	72	0	1	3	0	76	80.4	1	1	78	5	0	0	1	86	85.6
17:45 - 18:00	0	0	53	3	0	0	0	56	56.0	0	0	74	3	0	0	3	80	83.0
Hourly Total	**0**	**0**	**259**	**11**	**3**	**5**	**1**	**279**	**288.0**	**1**	**3**	**299**	**23**	**2**	**0**	**7**	**335**	**340.4**
18:00 - 18:15	0	0	49	2	0	0	0	51	51.0	0	1	37	1	0	1	1	41	42.7
18:15 - 18:30	0	2	36	0	1	0	0	39	38.3	0	2	38	6	0	1	2	49	51.1
18:30 - 18:45	0	2	30	1	0	0	1	34	33.8	0	0	27	4	1	0	0	32	32.5
18:45 - 19:00	0	0	29	1	2	0	0	32	33.0	0	0	26	2	0	0	0	28	28.0
Hourly Total	**0**	**4**	**144**	**4**	**3**	**0**	**1**	**156**	**156.1**	**0**	**3**	**128**	**13**	**1**	**2**	**3**	**150**	**154.3**
TOTAL	**0**	**5**	**680**	**46**	**13**	**16**	**3**	**763**	**790.3**	**2**	**7**	**672**	**57**	**4**	**7**	**18**	**767**	**790.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 1
Approach: Walton Hill

	Left to Northern Arm									Ahead to A453								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	33	12	2	0	0	48	48.2	0	0	45	6	1	6	1	59	68.3
07:15 - 07:30	1	0	45	12	1	1	0	60	61.0	0	1	64	8	2	5	0	80	86.9
07:30 - 07:45	0	0	49	10	4	1	0	64	67.3	0	0	81	8	3	9	0	101	114.2
07:45 - 08:00	0	0	60	20	1	3	0	84	88.4	0	0	90	6	1	4	0	101	106.7
Hourly Total	**2**	**0**	**187**	**54**	**8**	**5**	**0**	**256**	**264.9**	**0**	**1**	**280**	**28**	**7**	**24**	**1**	**341**	**376.1**
08:00 - 08:15	0	0	54	8	2	0	0	64	65.0	0	0	70	7	2	5	0	84	91.5
08:15 - 08:30	0	0	74	9	3	1	0	87	89.8	0	0	62	16	5	3	1	87	94.4
08:30 - 08:45	0	0	58	4	3	2	1	68	73.1	0	0	57	3	3	6	0	69	78.3
08:45 - 09:00	0	0	49	3	3	3	0	58	63.4	0	0	66	4	4	6	0	80	89.8
Hourly Total	**0**	**0**	**235**	**24**	**11**	**6**	**1**	**277**	**291.3**	**0**	**0**	**255**	**30**	**14**	**20**	**1**	**320**	**354.0**
09:00 - 09:15	0	0	28	3	6	3	0	40	46.9	0	0	47	10	4	6	0	67	76.8
09:15 - 09:30	0	0	36	3	3	2	0	44	48.1	0	0	31	6	3	2	2	44	50.1
09:30 - 09:45	0	1	30	5	5	0	0	41	42.9	0	0	25	6	1	2	0	34	37.1
09:45 - 10:00	0	1	38	5	1	3	0	48	51.8	0	0	31	5	2	3	0	41	45.9
Hourly Total	**0**	**2**	**132**	**16**	**15**	**8**	**0**	**173**	**189.7**	**0**	**0**	**134**	**27**	**10**	**13**	**2**	**186**	**209.9**
TOTAL	**2**	**2**	**554**	**94**	**34**	**19**	**1**	**706**	**745.9**	**0**	**1**	**669**	**85**	**31**	**57**	**4**	**847**	**940.0**
16:00 - 16:15	0	0	37	9	0	2	0	48	50.6	0	0	33	6	1	1	0	41	42.8
16:15 - 16:30	0	1	47	6	0	1	0	55	55.7	0	0	25	12	3	0	0	40	41.5
16:30 - 16:45	0	2	36	7	0	0	0	45	43.8	0	0	23	11	0	0	0	34	34.0
16:45 - 17:00	0	0	57	7	0	1	0	65	66.3	0	0	30	5	0	0	1	36	37.0
Hourly Total	**0**	**3**	**177**	**29**	**0**	**4**	**0**	**213**	**216.4**	**0**	**0**	**111**	**34**	**4**	**1**	**1**	**151**	**155.3**
17:00 - 17:15	0	1	49	1	1	0	0	52	51.9	0	0	41	3	0	0	0	44	44.0
17:15 - 17:30	0	0	51	3	1	1	0	56	57.8	0	0	35	1	0	0	0	36	36.0
17:30 - 17:45	0	0	50	6	2	0	0	58	59.0	0	1	54	3	0	1	1	60	61.7
17:45 - 18:00	0	1	45	6	2	0	0	54	54.4	0	0	41	2	1	0	0	44	44.5
Hourly Total	**0**	**2**	**195**	**16**	**6**	**1**	**0**	**220**	**223.1**	**0**	**1**	**171**	**9**	**1**	**1**	**1**	**184**	**186.2**
18:00 - 18:15	0	0	36	2	1	0	0	39	39.5	0	0	29	2	2	0	1	34	36.0
18:15 - 18:30	0	0	32	4	0	1	0	37	38.3	0	0	23	0	0	0	0	23	23.0
18:30 - 18:45	0	1	27	3	1	0	0	32	31.9	0	0	39	2	1	1	0	43	44.8
18:45 - 19:00	0	0	28	1	0	0	0	29	29.0	0	0	39	4	0	0	0	43	43.0
Hourly Total	**0**	**1**	**123**	**10**	**2**	**1**	**0**	**137**	**138.7**	**0**	**0**	**130**	**8**	**3**	**1**	**1**	**143**	**146.8**
TOTAL	**0**	**6**	**495**	**55**	**8**	**6**	**0**	**570**	**578.2**	**0**	**1**	**412**	**51**	**8**	**3**	**3**	**478**	**488.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 10 – M1 Junction 23 Turning Count Results

Road Data Services Ltd

East Midlands Gateway
Wednesday 2nd November 2022
Junction: 6
Approach: M1 J23 Slip Road North

	To A512									To M1 J23 Slip Road (S)									To Ashby Road East								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	41	28	1	1	2	73	76.8	0	0	0	0	0	0	0	0	0.0	0	0	26	9	0	4	0	39	44.2
07:15 - 07:30	0	0	59	16	6	2	0	83	88.6	0	0	0	0	0	0	0	0	0.0	0	0	27	22	2	1	0	52	54.3
07:30 - 07:45	0	0	115	19	2	0	0	136	137.0	0	0	0	0	0	0	0	0	0.0	0	0	33	17	7	0	0	57	60.5
07:45 - 08:00	0	1	189	31	6	1	0	228	231.7	0	0	0	0	0	0	0	0	0.0	0	0	68	18	9	4	0	99	108.7
Hourly Tota	**0**	**1**	**404**	**94**	**15**	**4**	**2**	**520**	**534.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**154**	**66**	**18**	**9**	**0**	**247**	**267.7**
08:00 - 08:15	0	0	153	39	8	3	0	203	210.9	0	0	0	0	0	0	0	0	0.0	0	0	53	24	6	3	0	86	92.9
08:15 - 08:30	0	1	170	23	2	5	0	201	207.9	0	0	0	0	0	0	0	0	0.0	0	0	58	18	7	8	0	91	104.9
08:30 - 08:45	0	0	165	24	9	8	0	206	220.9	0	0	0	0	0	0	0	0	0.0	0	0	39	16	9	2	0	66	73.1
08:45 - 09:00	0	0	131	17	0	3	0	151	154.9	0	0	0	0	0	0	0	0	0.0	0	0	61	17	1	4	1	84	90.7
Hourly Tota	**0**	**1**	**619**	**103**	**19**	**19**	**0**	**761**	**794.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**211**	**75**	**23**	**17**	**1**	**327**	**361.6**
09:00 - 09:15	0	0	92	17	2	6	2	119	129.8	0	0	0	0	0	0	0	0	0.0	0	0	42	10	4	5	0	61	69.5
09:15 - 09:30	0	0	84	13	7	4	3	111	122.7	0	0	0	0	0	0	0	0	0.0	0	0	46	16	2	7	0	71	81.1
09:30 - 09:45	0	0	83	16	5	1	0	105	108.8	0	0	0	0	0	0	0	0	0.0	0	0	25	12	2	7	0	46	56.1
09:45 - 10:00	0	0	74	20	5	3	1	103	110.4	0	0	0	0	0	0	0	0	0.0	0	0	25	4	4	4	0	37	44.2
Hourly Tota	**0**	**0**	**333**	**66**	**19**	**14**	**6**	**438**	**471.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**138**	**42**	**12**	**23**	**0**	**215**	**250.9**
TOTAL	**0**	**2**	**1356**	**263**	**53**	**37**	**8**	**1719**	**1800.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**503**	**183**	**53**	**49**	**1**	**789**	**880.2**
16:00 - 16:15	0	0	58	11	3	3	1	76	82.4	0	0	0	0	0	0	0	0	0.0	0	0	28	8	1	3	1	41	46.4
16:15 - 16:30	0	0	83	17	2	0	0	102	103.0	0	0	0	0	0	0	0	0	0.0	0	0	30	17	2	5	0	54	61.5
16:30 - 16:45	0	1	88	20	3	1	0	113	115.2	0	0	0	0	0	0	0	0	0.0	0	0	44	12	5	5	0	66	75.0
16:45 - 17:00	0	1	100	11	2	1	1	116	118.7	0	0	0	0	0	0	0	0	0.0	0	1	36	10	2	4	0	53	58.6
Hourly Tota	**0**	**2**	**329**	**59**	**10**	**5**	**2**	**407**	**419.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**138**	**47**	**10**	**17**	**1**	**214**	**241.5**
17:00 - 17:15	0	0	91	14	0	2	0	107	109.6	0	0	0	0	0	0	0	0	0.0	0	0	36	9	0	1	0	46	47.3
17:15 - 17:30	0	0	107	12	1	0	0	120	120.5	0	0	0	0	0	0	0	0	0.0	0	0	37	6	2	7	0	52	62.1
17:30 - 17:45	0	0	70	8	1	1	0	80	81.8	0	0	0	0	0	0	0	0	0.0	0	0	38	5	0	3	0	46	49.9
17:45 - 18:00	0	0	83	9	0	2	0	94	96.6	0	0	0	0	0	0	0	0	0.0	0	0	22	2	1	2	0	27	30.1
Hourly Tota	**0**	**0**	**351**	**43**	**2**	**5**	**0**	**401**	**408.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**133**	**22**	**3**	**13**	**0**	**171**	**189.4**
18:00 - 18:15	0	0	71	12	1	1	0	85	86.8	0	0	0	0	0	0	0	0	0.0	0	0	33	5	2	1	0	41	43.3
18:15 - 18:30	0	0	99	6	1	0	1	107	108.5	0	0	0	0	0	0	0	0	0.0	0	0	59	1	2	3	0	65	69.9
18:30 - 18:45	0	0	65	7	0	1	0	73	74.3	0	0	0	0	0	0	0	0	0.0	0	0	41	6	3	4	0	54	60.7
18:45 - 19:00	0	0	84	6	2	0	1	93	95.0	0	0	0	0	0	0	0	0	0.0	0	0	34	11	1	3	0	49	53.4
Hourly Tota	**0**	**0**	**319**	**31**	**4**	**2**	**2**	**358**	**364.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**167**	**23**	**8**	**11**	**0**	**209**	**227.3**
TOTAL	**0**	**2**	**999**	**133**	**16**	**12**	**4**	**1166**	**1192.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**438**	**92**	**21**	**41**	**1**	**594**	**658.2**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 2nd November 2022
Junction: 6
Approach: A512

	To M1 J23 Slip Road (S)									To Ashby Road East									To M1 J23 Slip Road (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	42	7	4	1	0	54	57.3	0	1	39	11	3	0	1	55	56.9	0	0	90	20	2	4	0	116	122.2
07:15 - 07:30	0	0	28	9	2	0	0	39	40.0	0	1	52	14	3	1	0	71	73.2	0	0	106	24	3	4	0	137	143.7
07:30 - 07:45	0	0	30	5	2	1	0	38	40.3	0	0	65	8	4	4	1	82	90.2	0	1	121	13	4	1	0	140	142.7
07:45 - 08:00	0	0	21	7	1	2	1	32	36.1	0	0	79	14	2	1	2	98	102.3	0	0	100	14	3	5	0	122	130.0
Hourly Tota	0	0	121	28	9	4	1	163	173.7	0	2	235	47	12	6	4	306	322.6	0	1	417	71	12	14	0	515	538.6
08:00 - 08:15	0	0	35	3	2	3	0	43	47.9	0	0	101	12	5	0	0	118	120.5	0	1	82	10	3	4	0	100	106.1
08:15 - 08:30	0	0	22	4	4	1	0	31	34.3	0	0	51	8	0	0	1	60	61.0	0	0	90	12	3	2	0	107	111.1
08:30 - 08:45	0	0	19	7	2	6	3	37	48.8	0	0	72	14	2	4	0	92	98.2	0	0	81	7	1	3	1	93	98.4
08:45 - 09:00	0	0	19	7	3	3	1	33	39.4	0	0	59	18	0	0	2	79	81.0	0	1	70	9	2	3	0	85	89.3
Hourly Tota	0	0	95	21	11	13	4	144	170.4	0	0	283	52	7	4	3	349	360.7	0	2	323	38	9	12	1	385	404.9
09:00 - 09:15	0	0	19	12	3	2	1	37	42.1	0	0	45	20	3	2	1	71	76.1	0	1	76	15	3	1	0	96	98.2
09:15 - 09:30	0	0	19	2	6	2	0	29	34.6	0	0	45	14	3	0	2	64	67.5	0	0	57	11	2	5	0	75	82.5
09:30 - 09:45	0	0	28	7	7	4	2	48	58.7	0	0	42	14	1	3	0	60	64.4	0	0	64	12	4	5	0	85	93.5
09:45 - 10:00	0	0	22	9	3	2	0	36	40.1	0	0	46	13	4	1	1	65	69.3	0	1	53	10	6	2	0	72	77.0
Hourly Tota	0	0	88	30	19	10	3	150	175.5	0	0	178	61	11	6	4	260	277.3	0	2	250	48	15	13	0	328	351.2
TOTAL	0	0	304	79	39	27	8	457	519.6	0	2	696	160	30	16	11	915	960.6	0	5	990	157	36	39	1	1228	1294.7
16:00 - 16:15	0	0	102	14	2	1	0	119	121.3	0	0	127	16	2	1	2	148	152.3	0	0	102	16	3	0	3	124	128.5
16:15 - 16:30	0	1	99	12	0	1	1	114	115.7	0	0	113	10	2	2	2	129	134.6	0	0	121	11	4	2	1	139	144.6
16:30 - 16:45	0	0	79	16	1	3	0	99	103.4	1	1	121	14	1	1	0	139	139.4	0	0	120	22	1	1	0	144	145.8
16:45 - 17:00	0	1	95	12	0	0	0	108	107.4	0	2	134	15	1	2	0	154	155.9	0	0	126	18	2	2	2	150	155.6
Hourly Tota	0	2	375	54	3	5	1	440	447.8	1	3	495	55	6	6	4	570	582.2	0	0	469	67	10	5	6	557	574.5
17:00 - 17:15	0	0	90	11	0	0	1	102	103.0	0	0	162	13	0	1	3	179	183.3	0	0	112	16	1	2	1	132	136.1
17:15 - 17:30	0	0	87	8	1	1	1	98	100.8	0	1	92	10	0	0	0	103	102.4	0	0	135	14	1	3	1	154	159.4
17:30 - 17:45	0	0	78	4	1	0	0	83	83.5	0	0	124	13	1	3	1	142	147.4	0	0	91	4	1	0	0	96	96.5
17:45 - 18:00	0	0	53	10	0	0	0	63	63.0	0	0	72	9	0	0	3	84	87.0	0	0	91	6	1	0	0	98	98.5
Hourly Tota	0	0	308	33	2	1	2	346	350.3	0	1	450	45	1	4	7	508	520.1	0	0	429	40	4	5	2	480	490.5
18:00 - 18:15	0	0	52	3	0	0	0	55	55.0	0	7	83	17	1	3	2	113	115.2	0	1	62	6	0	0	0	69	68.4
18:15 - 18:30	0	0	38	4	0	1	3	46	50.3	0	0	104	15	0	0	2	121	123.0	0	1	48	4	3	0	0	56	56.9
18:30 - 18:45	0	0	40	2	2	0	0	44	45.0	0	0	61	9	0	0	1	71	72.0	0	1	50	6	0	1	0	58	58.7
18:45 - 19:00	0	0	24	2	0	0	1	27	28.0	0	0	56	7	0	1	1	65	67.3	0	0	47	5	1	1	1	55	57.8
Hourly Tota	0	0	154	11	2	1	4	172	178.3	0	7	304	48	1	4	6	370	377.5	0	3	207	21	4	2	1	238	241.8
TOTAL	0	2	837	98	7	7	7	958	976.4	1	11	1249	148	8	14	17	1448	1479.8	0	3	1105	128	18	12	9	1275	1306.8

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 2nd November 2022
Junction: 6
Approach: M1 J23 Slip Road South

	To Ashby Road East									To M1 J23 Slip Road (N)									To A512								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	15	2	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	30	9	3	0	0	42	43.5
07:15 - 07:30	0	1	24	7	1	0	0	33	32.9	0	0	0	0	0	0	0	0	0.0	0	0	49	6	6	0	0	61	64.0
07:30 - 07:45	0	0	34	8	2	2	0	46	49.6	0	0	0	0	0	0	0	0	0.0	0	0	60	10	6	3	0	79	85.9
07:45 - 08:00	0	0	37	7	1	3	0	48	52.4	0	0	0	0	0	0	0	0	0.0	0	1	74	8	2	2	0	87	90.0
Hourly Tota	**0**	**1**	**110**	**24**	**6**	**9**	**0**	**150**	**164.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**213**	**33**	**17**	**5**	**0**	**269**	**283.4**
08:00 - 08:15	0	0	33	9	5	4	0	51	58.7	0	0	0	0	0	0	0	0	0.0	0	0	92	13	2	2	0	109	112.6
08:15 - 08:30	0	0	21	11	1	4	0	37	42.7	0	0	0	0	0	0	0	0	0.0	0	0	109	16	2	1	0	128	130.3
08:30 - 08:45	0	0	17	7	1	4	0	29	34.7	0	0	0	0	0	0	0	0	0.0	0	0	105	6	2	2	1	116	120.6
08:45 - 09:00	0	0	19	5	1	2	0	27	30.1	0	0	0	0	0	0	0	0	0.0	0	0	80	8	3	1	0	92	94.8
Hourly Tota	**0**	**0**	**90**	**32**	**8**	**14**	**0**	**144**	**166.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**386**	**43**	**9**	**6**	**1**	**445**	**458.3**
09:00 - 09:15	0	0	16	9	3	3	0	31	36.4	0	0	0	0	0	0	0	0	0.0	0	0	76	5	4	0	0	85	87.0
09:15 - 09:30	0	0	13	10	2	2	0	27	30.6	0	0	0	0	0	0	0	0	0.0	0	0	55	7	3	1	0	66	68.8
09:30 - 09:45	0	0	14	3	1	1	1	20	22.8	0	0	0	0	0	0	0	0	0.0	0	0	36	6	4	3	1	50	56.9
09:45 - 10:00	0	0	18	5	0	2	0	25	27.6	0	0	0	0	0	0	0	0	0.0	0	0	34	8	2	4	0	48	54.2
Hourly Tota	**0**	**0**	**61**	**27**	**6**	**8**	**1**	**103**	**117.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**201**	**26**	**13**	**8**	**1**	**249**	**266.9**
TOTAL	**0**	**1**	**261**	**83**	**20**	**31**	**1**	**397**	**447.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**800**	**102**	**39**	**19**	**2**	**963**	**1008.6**
16:00 - 16:15	0	0	12	5	2	4	0	23	29.2	0	0	0	0	0	0	0	0	0.0	0	0	28	2	2	0	1	33	35.0
16:15 - 16:30	0	0	34	7	2	4	0	47	53.2	0	0	0	0	0	0	0	0	0.0	0	0	28	10	2	1	0	41	43.3
16:30 - 16:45	0	0	32	7	3	2	0	44	48.1	0	0	0	0	0	0	0	0	0.0	0	0	47	5	0	4	0	56	61.2
16:45 - 17:00	0	0	22	3	2	1	0	28	30.3	0	0	0	0	0	0	0	0	0.0	0	0	28	3	1	0	0	32	32.5
Hourly Tota	**0**	**0**	**100**	**22**	**9**	**11**	**0**	**142**	**160.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**131**	**20**	**5**	**5**	**1**	**162**	**172.0**
17:00 - 17:15	0	0	17	3	1	6	0	27	35.3	0	0	0	0	0	0	0	0	0.0	0	0	47	3	1	0	1	52	53.5
17:15 - 17:30	0	0	38	4	3	5	0	50	58.0	0	0	0	0	0	0	0	0	0.0	0	0	50	4	1	1	0	56	57.8
17:30 - 17:45	0	0	30	4	1	2	0	37	40.1	0	0	0	0	0	0	0	0	0.0	0	0	44	2	2	1	0	49	51.3
17:45 - 18:00	0	0	24	2	3	2	0	31	35.1	0	0	0	0	0	0	0	0	0.0	0	0	32	3	2	0	0	37	38.0
Hourly Tota	**0**	**0**	**109**	**13**	**8**	**15**	**0**	**145**	**168.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**173**	**12**	**6**	**2**	**1**	**194**	**200.6**
18:00 - 18:15	0	0	20	6	2	2	0	30	33.6	0	0	0	0	0	0	0	0	0.0	0	0	41	0	1	1	0	43	44.8
18:15 - 18:30	0	0	31	3	2	1	0	37	39.3	0	0	0	0	0	0	0	0	0.0	0	0	34	3	0	0	0	37	37.0
18:30 - 18:45	0	0	29	3	1	3	0	36	40.4	0	0	0	0	0	0	0	0	0.0	0	0	23	4	0	0	0	27	27.0
18:45 - 19:00	0	0	24	0	1	1	0	26	27.8	0	0	0	0	0	0	0	0	0.0	0	0	22	3	1	0	0	26	26.5
Hourly Tota	**0**	**0**	**104**	**12**	**6**	**7**	**0**	**129**	**141.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**120**	**10**	**2**	**1**	**0**	**133**	**135.3**
TOTAL	**0**	**0**	**313**	**47**	**23**	**33**	**0**	**416**	**470.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**424**	**42**	**13**	**8**	**2**	**489**	**507.9**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 2nd November 2022
Junction: 6
Approach: Ashby Road East

	To M1 J23 Slip Road (N)									To A512									To M1 J23 Slip Road (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	58	23	2	8	0	92	102.8	0	0	74	13	1	1	1	90	92.8	0	0	38	11	1	2	0	52	55.1
07:15 - 07:30	0	0	55	13	2	10	0	80	94.0	0	1	75	21	2	2	1	102	106.0	0	0	28	7	1	3	0	39	43.4
07:30 - 07:45	0	0	70	17	2	7	0	96	106.1	0	1	135	17	5	1	1	160	164.2	0	0	27	9	0	1	0	37	38.3
07:45 - 08:00	0	0	52	9	1	3	0	65	69.4	0	1	165	15	4	1	2	188	192.7	0	0	20	9	4	3	0	36	41.9
Hourly Tota	**0**	**1**	**235**	**62**	**7**	**28**	**0**	**333**	**372.3**	**0**	**3**	**449**	**66**	**12**	**5**	**5**	**540**	**555.7**	**0**	**0**	**113**	**36**	**6**	**9**	**0**	**164**	**178.7**
08:00 - 08:15	0	0	44	10	6	1	0	61	65.3	0	0	137	15	0	0	4	156	160.0	0	0	21	2	2	1	0	26	28.3
08:15 - 08:30	0	0	30	10	3	1	0	44	46.8	0	2	162	21	6	6	2	199	210.6	0	0	16	4	0	1	0	21	22.3
08:30 - 08:45	0	0	31	7	2	1	0	41	43.3	0	0	149	13	5	8	1	176	189.9	0	0	15	3	2	4	0	24	30.2
08:45 - 09:00	0	0	39	8	2	2	0	51	54.6	0	0	114	15	6	1	1	137	142.3	0	1	19	1	4	4	0	29	35.6
Hourly Tota	**0**	**0**	**144**	**35**	**13**	**5**	**0**	**197**	**210.0**	**0**	**2**	**562**	**64**	**17**	**15**	**8**	**668**	**702.8**	**0**	**1**	**71**	**10**	**8**	**10**	**0**	**100**	**116.4**
09:00 - 09:15	0	0	27	6	3	6	0	42	51.3	0	1	102	15	5	2	0	125	129.5	0	0	15	1	2	2	0	20	23.6
09:15 - 09:30	0	1	15	6	1	5	1	29	36.4	1	0	88	13	8	3	1	114	122.1	0	0	10	5	1	2	0	18	21.1
09:30 - 09:45	0	0	30	6	2	4	0	42	48.2	0	1	95	11	6	1	1	115	119.7	0	0	12	3	1	4	0	20	25.7
09:45 - 10:00	0	0	7	8	5	2	0	22	27.1	0	1	109	16	0	1	1	128	129.7	0	0	10	6	2	6	0	24	32.8
Hourly Tota	**0**	**1**	**79**	**26**	**11**	**17**	**1**	**135**	**163.0**	**1**	**3**	**394**	**55**	**19**	**7**	**3**	**482**	**501.0**	**0**	**0**	**47**	**15**	**6**	**14**	**0**	**82**	**103.2**
TOTAL	**0**	**2**	**458**	**123**	**31**	**50**	**1**	**665**	**745.3**	**1**	**8**	**1405**	**185**	**48**	**27**	**16**	**1690**	**1759.5**	**0**	**1**	**231**	**61**	**20**	**33**	**0**	**346**	**398.3**
16:00 - 16:15	0	0	55	15	3	1	0	74	76.8	0	0	85	11	1	0	1	98	99.5	0	0	34	8	1	1	0	44	45.8
16:15 - 16:30	0	1	44	9	1	3	0	58	61.8	1	0	84	17	0	0	1	103	103.2	0	0	33	9	0	1	0	43	44.3
16:30 - 16:45	0	0	38	15	1	1	1	56	58.8	0	0	88	10	0	0	0	98	98.0	0	0	31	10	2	5	0	48	55.5
16:45 - 17:00	0	0	31	7	3	0	0	41	42.5	0	0	79	11	0	0	1	91	92.0	0	0	24	7	1	2	0	34	37.1
Hourly Tota	**0**	**1**	**168**	**46**	**8**	**5**	**1**	**229**	**239.9**	**1**	**0**	**336**	**49**	**1**	**0**	**3**	**390**	**392.7**	**0**	**0**	**122**	**34**	**4**	**9**	**0**	**169**	**182.7**
17:00 - 17:15	0	0	47	9	1	1	0	58	59.8	0	1	89	11	0	0	1	102	102.4	0	0	28	5	2	0	0	35	36.0
17:15 - 17:30	0	0	49	8	2	1	0	60	62.3	0	1	104	13	0	1	0	119	119.7	0	0	28	2	0	0	0	30	30.0
17:30 - 17:45	0	0	41	8	0	0	0	49	49.0	0	0	74	5	0	0	3	82	85.0	0	0	29	4	0	0	0	33	33.0
17:45 - 18:00	0	0	35	7	0	2	0	44	46.6	0	0	72	3	2	1	0	78	80.3	0	0	17	1	0	0	0	18	18.0
Hourly Tota	**0**	**0**	**172**	**32**	**3**	**4**	**0**	**211**	**217.7**	**0**	**2**	**339**	**32**	**2**	**2**	**4**	**381**	**387.4**	**0**	**0**	**102**	**12**	**2**	**0**	**0**	**116**	**117.0**
18:00 - 18:15	0	0	25	4	1	2	0	32	35.1	0	0	72	14	0	1	1	88	90.3	0	0	20	2	1	1	0	24	25.8
18:15 - 18:30	0	0	23	3	0	0	0	26	26.0	0	1	55	5	0	0	3	64	66.4	0	0	16	3	0	2	0	21	23.6
18:30 - 18:45	0	0	17	0	0	0	0	17	17.0	0	0	84	9	0	0	2	95	97.0	0	0	10	3	0	1	1	15	17.3
18:45 - 19:00	0	0	18	1	1	0	0	20	20.5	0	0	75	7	1	0	0	83	83.5	0	0	10	2	0	1	0	13	14.3
Hourly Tota	**0**	**0**	**83**	**8**	**2**	**2**	**0**	**95**	**98.6**	**0**	**1**	**286**	**35**	**1**	**1**	**6**	**330**	**337.2**	**0**	**0**	**56**	**10**	**1**	**5**	**1**	**73**	**81.0**
TOTAL	**0**	**1**	**423**	**86**	**13**	**11**	**1**	**535**	**556.2**	**1**	**3**	**961**	**116**	**4**	**3**	**13**	**1101**	**1117.3**	**0**	**0**	**280**	**56**	**7**	**14**	**1**	**358**	**380.7**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 11 – A42/A453A/Top Brand Junction Turning Count Results

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: A453

	To Gelscoe Lane									To Top Brand									To A42 Entry Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	3	0	0	0	0	3	3.0	0	0	10	0	0	1	0	11	12.3	0	0	6	5	2	1	0	14	16.3
07:15 - 07:30	1	0	11	1	0	0	0	13	12.2	0	1	7	3	0	8	0	19	28.8	0	0	18	2	1	0	0	21	21.5
07:30 - 07:45	0	0	11	2	1	0	0	14	14.5	0	1	14	5	0	4	0	24	28.6	0	0	9	1	1	0	0	11	11.5
07:45 - 08:00	0	0	11	2	0	0	0	13	13.0	0	0	12	2	0	6	0	20	27.8	0	0	17	2	1	0	0	20	20.5
Hourly Total	**1**	**0**	**36**	**5**	**1**	**0**	**0**	**43**	**42.7**	**0**	**2**	**43**	**10**	**0**	**19**	**0**	**74**	**97.5**	**0**	**0**	**50**	**10**	**5**	**1**	**0**	**66**	**69.8**
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	0	9	2	0	10	0	21	34.0	0	0	10	1	2	2	0	15	18.6
08:15 - 08:30	0	0	9	0	0	0	0	9	9.0	0	0	18	5	1	8	0	32	42.9	0	0	18	3	1	1	0	23	24.8
08:30 - 08:45	0	0	8	3	1	0	0	12	12.5	0	0	10	5	1	11	0	27	41.8	0	0	7	4	0	1	0	12	13.3
08:45 - 09:00	0	0	6	2	0	0	0	8	8.0	0	0	5	3	0	6	0	14	21.8	0	0	12	1	1	1	0	15	16.8
Hourly Total	**0**	**0**	**28**	**6**	**1**	**0**	**0**	**35**	**35.5**	**0**	**0**	**42**	**15**	**2**	**35**	**0**	**94**	**140.5**	**0**	**0**	**47**	**9**	**4**	**5**	**0**	**65**	**73.5**
09:00 - 09:15	0	0	6	1	0	0	0	7	7.0	0	0	7	2	0	6	0	15	22.8	0	0	8	3	0	0	0	11	11.0
09:15 - 09:30	0	0	3	2	0	1	0	6	7.3	0	0	5	2	0	7	0	14	23.1	0	0	1	1	0	1	0	3	4.3
09:30 - 09:45	0	0	3	4	2	0	0	9	10.0	0	0	4	2	1	6	0	13	21.3	0	0	8	1	1	0	0	10	10.5
09:45 - 10:00	1	0	3	0	0	0	0	4	3.2	0	0	5	0	0	15	0	20	39.5	0	0	3	2	1	2	0	8	11.1
Hourly Total	**1**	**0**	**15**	**7**	**2**	**1**	**0**	**26**	**27.5**	**0**	**0**	**21**	**6**	**1**	**34**	**0**	**62**	**106.7**	**0**	**0**	**20**	**7**	**2**	**3**	**0**	**32**	**36.9**
TOTAL	**2**	**0**	**79**	**18**	**4**	**1**	**0**	**104**	**105.7**	**0**	**2**	**106**	**31**	**3**	**88**	**0**	**230**	**344.7**	**0**	**0**	**117**	**26**	**11**	**9**	**0**	**163**	**180.2**
16:00 - 16:15	0	0	8	0	0	0	0	8	8.0	0	0	15	4	0	3	0	22	25.9	0	0	23	5	0	0	0	28	28.0
16:15 - 16:30	0	0	4	3	0	0	0	7	7.0	0	0	12	4	1	3	0	20	24.4	0	0	22	4	1	1	0	28	29.8
16:30 - 16:45	0	0	7	3	0	0	0	10	10.0	0	0	23	1	1	0	0	25	25.5	0	0	31	5	1	0	1	38	39.5
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	7	8	0	1	0	16	17.3	0	0	16	2	1	0	0	19	19.5
Hourly Total	**0**	**0**	**22**	**6**	**0**	**0**	**0**	**28**	**28.0**	**0**	**0**	**57**	**17**	**2**	**7**	**0**	**83**	**93.1**	**0**	**0**	**92**	**16**	**3**	**1**	**1**	**113**	**116.8**
17:00 - 17:15	0	0	11	1	0	0	0	12	12.0	0	1	26	2	0	0	0	29	28.4	0	0	18	10	0	0	0	28	28.0
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	24	0	0	0	0	24	24.0	0	0	33	4	1	0	0	38	38.5
17:30 - 17:45	0	0	8	1	0	0	0	9	9.0	0	0	20	4	0	0	0	24	24.0	0	0	21	2	0	1	0	24	25.3
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	1	12	1	0	0	0	14	13.4	0	0	11	3	0	0	0	14	14.0
Hourly Total	**0**	**0**	**29**	**2**	**0**	**0**	**0**	**31**	**31.0**	**0**	**2**	**82**	**7**	**0**	**0**	**0**	**91**	**89.8**	**0**	**0**	**83**	**19**	**1**	**1**	**0**	**104**	**105.8**
18:00 - 18:15	0	0	10	2	0	0	0	12	12.0	0	0	20	0	0	1	0	21	22.3	0	0	22	4	0	2	0	28	30.6
18:15 - 18:30	0	0	8	0	0	0	0	8	8.0	0	0	9	0	0	1	0	10	11.3	0	0	10	2	0	1	0	13	14.3
18:30 - 18:45	0	0	10	2	0	0	0	12	12.0	0	0	16	2	0	0	0	18	18.0	0	0	9	1	2	1	0	13	15.3
18:45 - 19:00	0	0	8	1	0	0	0	9	9.0	0	0	8	0	0	1	0	9	10.3	0	0	11	0	0	1	0	12	13.3
Hourly Total	**0**	**0**	**36**	**5**	**0**	**0**	**0**	**41**	**41.0**	**0**	**0**	**53**	**2**	**0**	**3**	**0**	**58**	**61.9**	**0**	**0**	**52**	**7**	**2**	**5**	**0**	**66**	**73.5**
TOTAL	**0**	**0**	**87**	**13**	**0**	**0**	**0**	**100**	**100.0**	**0**	**2**	**192**	**26**	**2**	**10**	**0**	**232**	**244.8**	**0**	**0**	**227**	**42**	**6**	**7**	**1**	**283**	**296.1**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: Gelscoe Lane

	To Top Brand									To A42 Entry Slip Road									To A453								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	5	0	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	5	0	1	0	0	6	6.5	0	0	2	0	0	0	0	2	2.0
07:30 - 07:45	0	0	3	0	0	0	0	3	3.0	0	0	9	0	0	0	0	9	9.0	0	0	3	1	0	0	0	4	4.0
07:45 - 08:00	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	**0**	**0**	**9**	**0**	**1**	**0**	**0**	**10**	**10.5**	**0**	**0**	**22**	**0**	**1**	**0**	**0**	**23**	**23.5**	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**13.0**
08:00 - 08:15	0	0	3	0	0	0	0	3	3.0	0	0	4	0	2	0	0	6	7.0	0	0	5	0	0	0	0	5	5.0
08:15 - 08:30	0	0	0	1	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
08:30 - 08:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	7	0	0	0	0	7	7.0
Hourly Total	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**7.0**	**0**	**0**	**12**	**0**	**3**	**0**	**0**	**15**	**16.5**	**0**	**0**	**20**	**1**	**0**	**0**	**0**	**21**	**21.0**
09:00 - 09:15	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	6	0	0	0	0	6	6.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	4	0	0	0	0	4	4.0	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	1	0	0	4	4.5	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**13**	**1**	**1**	**0**	**0**	**15**	**15.5**	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**13.0**
TOTAL	**0**	**0**	**20**	**2**	**1**	**0**	**0**	**23**	**23.5**	**0**	**0**	**47**	**1**	**5**	**0**	**0**	**53**	**55.5**	**0**	**0**	**44**	**3**	**0**	**0**	**0**	**47**	**47.0**
16:00 - 16:15	0	0	6	2	0	0	0	8	8.0	0	0	4	0	0	0	0	4	4.0	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	0	0	6	0	0	0	0	6	6.0	0	0	1	1	0	0	0	2	2.0	0	1	4	2	0	0	0	7	6.4
16:30 - 16:45	0	0	6	0	0	0	0	6	6.0	0	0	6	1	0	0	0	7	7.0	0	0	5	1	0	0	0	6	6.0
16:45 - 17:00	0	0	3	0	0	0	0	3	3.0	0	0	0	1	0	0	0	1	1.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	**0**	**0**	**21**	**2**	**0**	**0**	**0**	**23**	**23.0**	**0**	**0**	**11**	**3**	**0**	**0**	**0**	**14**	**14.0**	**0**	**1**	**18**	**5**	**0**	**0**	**0**	**24**	**23.4**
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	7	1	0	0	0	8	8.0	1	0	9	0	0	0	0	10	9.2
17:15 - 17:30	0	0	4	0	0	0	0	4	4.0	0	0	4	1	0	0	0	5	5.0	0	0	6	2	0	0	0	8	8.0
17:30 - 17:45	0	0	2	0	0	0	0	2	2.0	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0
17:45 - 18:00	0	0	2	1	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0
Hourly Total	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**13.0**	**0**	**0**	**16**	**3**	**0**	**0**	**0**	**19**	**19.0**	**1**	**0**	**20**	**3**	**0**	**0**	**0**	**24**	**23.2**
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	1	2	0	0	0	3	3.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	1	1	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	2	0	0	0	0	2	2.0	0	0	3	0	0	0	0	3	3.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**8**	**3**	**0**	**0**	**0**	**11**	**11.0**	**0**	**0**	**17**	**1**	**0**	**0**	**0**	**18**	**18.0**
TOTAL	**0**	**0**	**37**	**4**	**0**	**0**	**0**	**41**	**41.0**	**0**	**0**	**35**	**9**	**0**	**0**	**0**	**44**	**44.0**	**1**	**1**	**55**	**9**	**0**	**0**	**0**	**66**	**64.6**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: Top Brand

	To A42 Entry Slip Road									To A453									To Gelscoe Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	0	0	6	0	7	14.8	0	0	9	2	1	4	0	16	21.7	0	0	2	0	0	1	0	3	4.3
07:15 - 07:30	0	0	0	2	0	6	0	8	15.8	0	0	18	4	2	9	0	33	45.7	0	0	9	2	0	0	0	11	11.0
07:30 - 07:45	0	0	0	0	0	2	0	2	4.6	0	0	31	2	0	13	0	46	62.9	0	0	5	0	0	0	0	5	5.0
07:45 - 08:00	0	0	1	0	0	7	0	8	17.1	0	0	23	4	0	6	1	34	42.8	0	0	5	2	0	0	0	7	7.0
Hourly Total	**0**	**0**	**2**	**2**	**0**	**21**	**0**	**25**	**52.3**	**0**	**0**	**81**	**12**	**3**	**32**	**1**	**129**	**173.1**	**0**	**0**	**21**	**4**	**0**	**1**	**0**	**26**	**27.3**
08:00 - 08:15	0	0	0	0	0	4	0	4	9.2	0	0	22	2	1	4	0	29	34.7	0	0	7	0	0	0	0	7	7.0
08:15 - 08:30	0	0	1	0	1	5	0	7	14.0	0	1	15	1	1	7	1	26	36.0	0	0	3	1	0	0	0	4	4.0
08:30 - 08:45	0	0	0	0	1	3	0	4	8.4	0	0	13	3	2	5	0	23	30.5	0	0	4	0	0	0	0	4	4.0
08:45 - 09:00	0	0	0	0	0	8	0	8	18.4	0	0	20	4	0	4	0	28	33.2	0	0	2	1	0	0	0	3	3.0
Hourly Total	**0**	**0**	**1**	**0**	**2**	**20**	**0**	**23**	**50.0**	**0**	**1**	**70**	**10**	**4**	**20**	**1**	**106**	**134.4**	**0**	**0**	**16**	**2**	**0**	**0**	**0**	**18**	**18.0**
09:00 - 09:15	0	0	0	0	0	1	0	1	2.3	0	0	6	1	0	3	0	10	13.9	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	0	0	0	6	0	6	13.8	0	0	8	4	0	5	0	17	23.5	0	0	4	0	0	0	0	4	4.0
09:30 - 09:45	0	0	0	0	0	4	0	4	9.2	0	0	7	2	0	2	0	11	13.6	0	0	7	0	0	0	0	7	7.0
09:45 - 10:00	0	0	0	0	0	5	0	5	11.5	0	0	7	1	0	1	0	9	10.3	0	0	4	0	0	0	0	4	4.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**16**	**36.8**	**0**	**0**	**28**	**8**	**0**	**11**	**0**	**47**	**61.3**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**16**	**16.0**
TOTAL	**0**	**0**	**3**	**2**	**2**	**57**	**0**	**64**	**139.1**	**0**	**1**	**179**	**30**	**7**	**63**	**2**	**282**	**368.8**	**0**	**0**	**53**	**6**	**0**	**1**	**0**	**60**	**61.3**
16:00 - 16:15	0	0	2	0	0	1	0	3	4.3	0	0	10	2	0	0	0	12	12.0	0	0	4	0	2	0	0	6	7.0
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	0	0	14	14.5	0	0	3	1	0	0	0	4	4.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	15	1	0	0	0	16	16.0	0	0	5	2	0	0	0	7	7.0
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	0	1	7	0	0	0	0	8	7.4	0	0	1	2	0	0	0	3	3.0
Hourly Total	**0**	**0**	**6**	**0**	**0**	**1**	**0**	**7**	**8.3**	**0**	**1**	**43**	**5**	**1**	**0**	**0**	**50**	**49.9**	**0**	**0**	**13**	**5**	**2**	**0**	**0**	**20**	**21.0**
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	1	0	14	3	0	1	0	19	19.5	0	0	1	0	0	0	0	1	1.0
17:15 - 17:30	0	0	1	0	0	0	0	1	1.0	0	0	12	1	0	0	0	13	13.0	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	1	0	12	13.3	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	11	0	0	0	0	11	11.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**1**	**0**	**48**	**4**	**0**	**2**	**0**	**55**	**56.8**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**7**	**7.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	13	0	0	2	0	15	17.6	0	0	3	1	0	0	0	4	4.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	1	12	1	0	0	0	14	13.4	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	1	5	1	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	12	1	0	2	0	15	17.6	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**2**	**42**	**3**	**0**	**4**	**0**	**51**	**55.0**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**
TOTAL	**0**	**0**	**9**	**0**	**0**	**1**	**0**	**10**	**11.3**	**1**	**3**	**133**	**12**	**1**	**6**	**0**	**156**	**161.7**	**0**	**0**	**24**	**6**	**2**	**0**	**0**	**32**	**33.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 8
Approach: A42 Entry Slip Road

	To A453									To Gelscoe Lane									To Top Brand								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 12 – A50 Junction 1 Turning Count Results

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: B5010

	To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	1	0	1	0	0	3	2.9	0	0	19	8	0	0	0	27	27.0	0	0	1	0	0	0	0	1	1.0	0	0	10	1	0	0	1	12	13.0	0	0	11	2	0	0	0	13	13.0
07:15 - 07:30	0	0	3	1	0	0	0	4	4.0	0	0	14	7	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0	0	0	12	2	0	0	1	15	16.0	0	0	13	2	0	0	0	15	15.0
07:30 - 07:45	0	0	13	3	0	0	0	16	16.0	0	0	19	4	0	0	0	23	23.0	0	0	1	0	0	0	0	1	1.0	0	1	17	5	0	0	0	23	22.4	0	0	16	4	0	0	0	20	20.0
07:45 - 08:00	0	0	9	4	0	0	0	13	13.0	0	0	12	4	1	0	0	17	17.5	0	0	1	0	0	0	0	1	1.0	0	1	22	2	1	0	1	27	27.9	0	0	16	2	0	0	0	18	18.0
Hourly Total	**0**	**1**	**26**	**8**	**1**	**0**	**0**	**36**	**35.9**	**0**	**0**	**64**	**23**	**1**	**0**	**0**	**88**	**88.5**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**2**	**61**	**10**	**1**	**0**	**3**	**77**	**79.3**	**0**	**0**	**56**	**10**	**0**	**0**	**0**	**66**	**66.0**
08:00 - 08:15	0	0	12	2	1	0	2	17	19.5	0	0	24	2	0	0	0	26	26.0	0	0	1	0	0	0	0	1	1.0	0	1	13	1	0	0	1	16	16.4	0	0	11	5	0	0	0	16	16.0
08:15 - 08:30	0	1	11	4	0	0	0	16	15.4	0	0	18	3	0	0	0	21	21.0	0	0	2	0	0	0	0	2	2.0	0	0	20	4	0	0	1	25	26.0	0	0	16	2	0	0	0	18	18.0
08:30 - 08:45	0	0	12	5	0	0	0	17	17.0	0	0	14	1	0	0	0	15	15.0	0	0	2	0	0	0	0	2	2.0	0	0	17	0	0	0	0	17	17.0	0	0	11	1	0	0	0	12	12.0
08:45 - 09:00	0	0	12	3	1	0	0	16	16.5	0	0	15	2	0	0	0	17	17.0	0	0	1	0	0	0	0	1	1.0	0	0	14	2	0	0	1	17	18.0	0	0	10	0	0	0	0	10	10.0
Hourly Total	**0**	**1**	**47**	**14**	**2**	**0**	**2**	**66**	**68.4**	**0**	**0**	**71**	**8**	**0**	**0**	**0**	**79**	**79.0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**1**	**64**	**7**	**0**	**0**	**3**	**75**	**77.4**	**0**	**0**	**48**	**8**	**0**	**0**	**0**	**56**	**56.0**
09:00 - 09:15	0	0	12	2	1	0	0	15	15.5	0	0	11	8	1	0	0	20	20.5	0	0	2	0	0	0	0	2	2.0	0	0	11	1	1	0	0	13	13.5	0	0	8	1	0	0	0	9	9.0
09:15 - 09:30	0	0	8	1	0	0	0	9	9.0	0	0	10	3	1	0	0	14	14.5	0	0	1	0	0	0	0	1	1.0	0	0	9	3	1	0	2	15	17.5	0	0	4	2	0	0	0	6	6.0
09:30 - 09:45	0	1	14	4	0	0	0	19	18.4	0	0	11	5	1	0	0	17	17.5	0	0	1	0	0	0	0	1	1.0	0	0	10	1	1	0	0	12	12.5	0	0	8	1	0	0	0	9	9.0
09:45 - 10:00	0	0	16	5	0	0	0	21	21.0	0	0	9	3	1	0	0	13	13.5	1	0	1	0	0	0	0	2	1.2	0	0	7	1	0	0	0	8	8.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	**0**	**1**	**50**	**12**	**1**	**0**	**0**	**64**	**63.9**	**0**	**0**	**41**	**19**	**4**	**0**	**0**	**64**	**66.0**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**6**	**5.2**	**0**	**0**	**37**	**6**	**3**	**0**	**2**	**48**	**51.5**	**0**	**0**	**26**	**5**	**0**	**0**	**0**	**31**	**31.0**
TOTAL	**0**	**3**	**123**	**34**	**4**	**0**	**2**	**166**	**168.2**	**0**	**0**	**176**	**50**	**5**	**0**	**0**	**231**	**233.5**	**1**	**0**	**14**	**0**	**0**	**0**	**0**	**15**	**14.2**	**0**	**3**	**162**	**23**	**4**	**0**	**8**	**200**	**208.2**	**0**	**0**	**130**	**23**	**0**	**0**	**0**	**153**	**153.0**
16:00 - 16:15	0	0	13	3	0	0	0	16	16.0	0	0	24	4	0	0	0	28	28.0	1	0	0	0	0	0	0	1	0.2	0	0	15	2	0	0	0	17	17.0	0	0	14	2	0	0	0	16	16.0
16:15 - 16:30	0	0	17	0	0	0	0	17	17.0	0	0	18	3	0	0	0	21	21.0	0	0	1	0	0	0	0	1	1.0	0	2	15	2	0	0	2	21	21.8	0	0	12	1	0	0	0	13	13.0
16:30 - 16:45	0	0	11	0	2	0	0	13	14.0	0	0	15	2	0	0	0	17	17.0	0	0	1	0	0	0	0	1	1.0	0	1	14	2	1	0	1	19	19.9	0	0	17	3	0	0	0	20	20.0
16:45 - 17:00	0	1	9	3	0	0	0	13	12.4	0	0	16	2	0	0	0	18	18.0	0	0	1	0	0	0	0	1	1.0	0	0	15	1	0	0	1	17	18.0	0	0	16	1	0	0	0	17	17.0
Hourly Total	**0**	**1**	**50**	**6**	**2**	**0**	**0**	**59**	**59.4**	**0**	**0**	**73**	**11**	**0**	**0**	**0**	**84**	**84.0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**4**	**3.2**	**0**	**3**	**59**	**7**	**1**	**0**	**4**	**74**	**76.7**	**0**	**0**	**59**	**7**	**0**	**0**	**0**	**66**	**66.0**
17:00 - 17:15	0	1	7	3	0	0	0	11	10.4	0	0	14	4	0	0	0	18	18.0	0	0	1	0	0	0	0	1	1.0	0	0	15	3	0	0	0	18	18.0	0	0	30	3	0	0	0	33	33.0
17:15 - 17:30	0	0	12	1	0	0	0	13	13.0	0	0	13	1	0	0	0	14	14.0	0	0	1	0	0	0	0	1	1.0	0	0	11	1	0	0	0	12	12.0	0	0	12	1	0	0	0	13	13.0
17:30 - 17:45	0	0	12	4	0	0	0	16	16.0	0	0	13	4	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0	0	0	13	2	1	0	0	16	16.5	0	1	14	3	0	0	0	18	17.4
17:45 - 18:00	0	0	9	2	0	0	0	11	11.0	0	0	9	3	0	0	0	12	12.0	0	0	1	0	0	0	0	1	1.0	0	0	11	3	1	0	1	16	17.5	0	0	11	4	0	0	0	15	15.0
Hourly Total	**0**	**1**	**40**	**10**	**0**	**0**	**0**	**51**	**50.4**	**0**	**0**	**49**	**12**	**0**	**0**	**0**	**61**	**61.0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**50**	**9**	**2**	**0**	**1**	**62**	**64.0**	**0**	**1**	**67**	**11**	**0**	**0**	**0**	**79**	**78.4**
18:00 - 18:15	0	2	10	3	0	0	0	15	13.8	0	0	17	2	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	0	18	1	0	0	2	21	23.0	0	0	13	1	0	0	0	14	14.0
18:15 - 18:30	0	0	7	1	0	0	0	8	8.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	0	0	10	2	0	0	0	12	12.0	0	0	5	1	0	0	0	6	6.0
18:30 - 18:45	0	0	16	2	0	0	0	18	18.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	9	1	0	0	0	10	10.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	7	2	0	0	0	9	9.0	0	0	1	0	0	0	0	1	1.0	0	0	10	0	0	0	0	10	10.0	0	0	8	0	0	0	0	8	8.0
Hourly Total	**0**	**2**	**43**	**6**	**0**	**0**	**0**	**51**	**49.8**	**0**	**0**	**38**	**6**	**0**	**0**	**0**	**44**	**44.0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**0**	**0**	**47**	**4**	**0**	**0**	**2**	**53**	**55.0**	**0**	**0**	**31**	**3**	**0**	**0**	**0**	**34**	**34.0**
TOTAL	**0**	**4**	**133**	**22**	**2**	**0**	**0**	**161**	**159.6**	**0**	**0**	**160**	**29**	**0**	**0**	**0**	**189**	**189.0**	**1**	**0**	**7**	**0**	**0**	**0**	**0**	**8**	**7.2**	**0**	**3**	**156**	**20**	**3**	**0**	**7**	**189**	**195.7**	**0**	**1**	**157**	**21**	**0**	**0**	**0**	**179**	**178.4**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: B6540

	To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)									To B5010								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	11	1	5	0	53	60.0	0	0	1	0	0	0	0	1	1.0	0	6	31	3	0	0	2	42	40.4	0	0	39	10	2	4	0	55	61.2	0	1	6	1	0	0	0	8	7.4
07:15 - 07:30	0	1	65	15	2	7	0	90	99.5	0	0	2	0	0	0	0	2	2.0	0	1	40	4	2	1	2	50	53.7	0	0	48	5	2	2	0	57	60.6	0	0	6	1	0	0	0	7	7.0
07:30 - 07:45	0	1	66	13	1	3	0	84	87.8	0	0	3	0	0	0	0	3	3.0	0	2	51	6	1	0	1	61	61.3	0	0	49	2	1	2	0	54	57.1	0	0	10	0	0	0	0	10	10.0
07:45 - 08:00	0	1	56	18	4	1	0	80	82.7	0	0	2	0	0	0	0	2	2.0	0	2	47	5	2	0	0	56	55.8	0	0	31	9	0	0	0	40	40.0	0	0	8	3	0	0	0	11	11.0
Hourly Total	**0**	**3**	**223**	**57**	**8**	**16**	**0**	**307**	**330.0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**	**0**	**11**	**169**	**18**	**5**	**1**	**5**	**209**	**211.2**	**0**	**0**	**167**	**26**	**5**	**8**	**0**	**206**	**218.9**	**0**	**1**	**30**	**5**	**0**	**0**	**0**	**36**	**35.4**
08:00 - 08:15	0	1	59	8	5	2	0	75	79.5	0	0	3	0	0	0	0	3	3.0	0	1	44	2	0	1	0	48	48.7	0	0	29	7	0	2	0	38	40.6	0	0	5	1	0	0	0	6	6.0
08:15 - 08:30	0	0	41	5	4	3	0	53	58.9	0	0	3	0	0	0	0	3	3.0	0	0	55	8	1	0	1	65	66.5	0	0	43	6	3	3	0	55	60.4	0	0	8	2	0	0	0	10	10.0
08:30 - 08:45	0	0	43	8	4	1	0	56	59.3	0	0	3	1	0	0	0	4	4.0	0	0	58	2	0	2	0	62	64.6	0	0	34	10	0	0	1	45	46.0	0	0	10	1	0	0	0	11	11.0
08:45 - 09:00	0	0	27	14	2	5	0	48	55.5	0	0	3	1	0	0	0	4	4.0	0	0	40	7	2	0	1	50	52.0	0	0	28	6	0	2	0	36	38.6	0	0	5	3	0	0	1	9	10.0
Hourly Total	**0**	**1**	**170**	**35**	**15**	**11**	**0**	**232**	**253.2**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**14**	**14.0**	**0**	**1**	**197**	**19**	**3**	**3**	**2**	**225**	**231.8**	**0**	**0**	**134**	**29**	**3**	**7**	**1**	**174**	**185.6**	**0**	**0**	**28**	**7**	**0**	**0**	**1**	**36**	**37.0**
09:00 - 09:15	0	0	39	2	1	3	0	45	49.4	0	0	5	1	0	0	0	6	6.0	0	0	33	3	1	1	1	39	41.8	0	0	29	7	2	2	0	40	43.6	0	0	4	1	0	0	0	5	5.0
09:15 - 09:30	0	0	21	9	2	4	0	36	42.2	0	0	3	0	0	0	0	3	3.0	0	0	39	8	2	0	2	51	54.0	0	0	18	6	0	2	0	26	28.6	0	0	8	4	0	0	0	12	12.0
09:30 - 09:45	0	1	26	15	3	0	0	45	45.9	0	0	2	1	0	0	0	3	3.0	0	0	24	7	2	2	1	36	40.6	0	0	21	8	0	7	0	36	45.1	0	0	7	2	0	0	1	10	11.0
09:45 - 10:00	0	0	19	6	1	6	0	32	40.3	0	0	2	0	0	0	0	2	2.0	0	0	20	2	2	0	1	25	27.0	0	1	22	6	0	3	0	32	35.3	0	0	8	1	0	0	0	9	9.0
Hourly Total	**0**	**1**	**105**	**32**	**7**	**13**	**0**	**158**	**177.8**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**116**	**20**	**7**	**3**	**5**	**151**	**163.4**	**0**	**1**	**90**	**27**	**2**	**14**	**0**	**134**	**152.6**	**0**	**0**	**27**	**8**	**0**	**0**	**1**	**36**	**37.0**
TOTAL	**0**	**5**	**498**	**124**	**30**	**40**	**0**	**697**	**761.0**	**0**	**0**	**32**	**4**	**0**	**0**	**0**	**36**	**36.0**	**0**	**12**	**482**	**57**	**15**	**7**	**12**	**585**	**606.4**	**0**	**1**	**391**	**82**	**10**	**29**	**1**	**514**	**557.1**	**0**	**1**	**85**	**20**	**0**	**0**	**2**	**108**	**109.4**
16:00 - 16:15	0	0	36	8	1	6	0	51	59.3	0	0	1	1	0	0	0	2	2.0	0	1	27	6	0	2	3	39	44.0	0	1	26	8	0	2	0	37	39.0	0	0	8	2	0	0	0	10	10.0
16:15 - 16:30	0	1	33	8	2	6	0	50	58.2	0	0	2	1	0	0	0	3	3.0	0	1	36	4	1	1	0	43	44.2	0	0	32	6	0	1	0	39	40.3	0	0	14	2	0	0	0	16	16.0
16:30 - 16:45	0	0	34	5	1	4	0	44	49.7	0	0	2	0	0	0	0	2	2.0	0	0	36	9	0	1	0	46	47.3	0	0	41	8	0	4	0	53	58.2	0	0	11	2	0	0	0	13	13.0
16:45 - 17:00	0	1	42	8	3	6	0	60	68.7	0	0	3	0	0	0	0	3	3.0	0	0	45	4	0	0	2	51	53.0	0	1	46	2	0	0	0	49	48.4	0	1	17	3	0	0	0	21	20.4
Hourly Total	**0**	**2**	**145**	**29**	**7**	**22**	**0**	**205**	**235.9**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**	**0**	**2**	**144**	**23**	**1**	**4**	**5**	**179**	**188.5**	**0**	**2**	**145**	**24**	**0**	**7**	**0**	**178**	**185.9**	**0**	**1**	**50**	**9**	**0**	**0**	**0**	**60**	**59.4**
17:00 - 17:15	0	2	55	9	0	6	1	73	80.6	0	0	2	0	0	0	0	2	2.0	0	1	28	4	1	1	2	37	40.2	0	2	41	5	0	1	0	49	49.1	0	1	14	2	0	0	0	17	16.4
17:15 - 17:30	0	0	44	2	2	2	0	50	53.6	0	0	2	1	0	0	0	3	3.0	0	2	38	4	0	2	2	48	51.4	0	2	40	6	0	2	0	50	51.4	0	0	12	4	0	0	0	16	16.0
17:30 - 17:45	0	0	62	5	0	5	0	72	78.5	0	0	0	0	0	0	0	0	0.0	0	2	29	3	1	1	0	36	36.6	0	2	34	4	0	0	0	40	38.8	0	1	18	1	0	0	0	20	19.4
17:45 - 18:00	0	0	39	3	0	4	0	46	51.2	0	0	1	0	0	0	0	1	1.0	0	0	35	3	0	1	1	40	42.3	0	0	34	4	0	1	0	39	40.3	0	0	12	4	0	0	0	16	16.0
Hourly Total	**0**	**2**	**200**	**19**	**2**	**17**	**1**	**241**	**263.9**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**6.0**	**0**	**5**	**130**	**14**	**2**	**5**	**5**	**161**	**170.5**	**0**	**6**	**149**	**19**	**0**	**4**	**0**	**178**	**179.6**	**0**	**2**	**56**	**11**	**0**	**0**	**0**	**69**	**67.8**
18:00 - 18:15	0	0	48	6	0	6	0	60	67.8	0	0	0	0	0	0	0	0	0.0	0	3	35	7	0	0	2	47	47.2	0	0	26	1	0	0	0	27	27.0	0	0	12	2	0	0	0	14	14.0
18:15 - 18:30	0	0	31	7	1	3	1	43	48.4	0	0	1	1	0	0	0	2	2.0	0	0	42	5	0	0	1	48	49.0	0	0	25	2	0	0	0	27	27.0	0	0	16	6	0	0	0	22	22.0
18:30 - 18:45	0	0	31	4	0	3	0	38	41.9	0	0	1	0	0	0	0	1	1.0	0	0	47	2	0	1	2	52	55.3	0	0	22	1	0	0	0	23	23.0	0	0	13	1	0	0	0	14	14.0
18:45 - 19:00	0	0	27	8	0	4	0	39	44.2	0	0	1	0	0	0	0	1	1.0	0	1	34	6	0	1	1	43	44.7	0	0	25	3	0	1	0	29	30.3	0	1	11	2	0	0	0	14	13.4
Hourly Total	**0**	**0**	**137**	**25**	**1**	**16**	**1**	**180**	**202.3**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**	**0**	**4**	**158**	**20**	**0**	**2**	**6**	**190**	**196.2**	**0**	**0**	**98**	**7**	**0**	**1**	**0**	**106**	**107.3**	**0**	**1**	**52**	**11**	**0**	**0**	**0**	**64**	**63.4**
TOTAL	**0**	**4**	**482**	**73**	**10**	**55**	**2**	**626**	**702.1**	**0**	**0**	**16**	**4**	**0**	**0**	**0**	**20**	**20.0**	**0**	**11**	**432**	**57**	**3**	**11**	**16**	**530**	**555.2**	**0**	**8**	**392**	**50**	**0**	**12**	**0**	**462**	**472.8**	**0**	**4**	**158**	**31**	**0**	**0**	**0**	**193**	**190.6**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: A50 J1 Slip Road East

	To Ryecroft Road									To Trent Lane									To A50 J1 Slip Road (W)									To B5010									To B6540								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	1	0	0	1	1.5	0	0	41	17	2	1	1	62	65.3	0	0	0	0	0	0	0	0	0.0	0	0	7	2	0	0	0	9	9.0	0	0	25	7	1	4	0	37	42.7
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	57	11	7	1	0	77	81.2	0	0	0	0	0	0	0	0	0.0	0	0	6	2	0	0	0	8	8.0	0	0	39	7	1	4	0	51	56.7
07:30 - 07:45	0	0	4	1	0	0	0	5	5.0	0	0	43	16	2	5	2	68	77.5	0	0	0	0	0	0	0	0	0.0	0	0	8	3	0	0	0	11	11.0	0	0	33	5	3	2	0	43	47.1
07:45 - 08:00	0	0	3	1	0	0	0	4	4.0	0	0	84	24	4	3	1	116	122.9	0	0	0	0	0	0	0	0	0.0	0	0	14	5	2	0	0	21	22.0	0	0	55	7	2	5	0	69	76.5
Hourly Total	**0**	**0**	**7**	**2**	**1**	**0**	**0**	**10**	**10.5**	**0**	**1**	**225**	**68**	**15**	**10**	**4**	**323**	**346.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**35**	**12**	**2**	**0**	**0**	**49**	**50.0**	**0**	**0**	**152**	**26**	**7**	**15**	**0**	**200**	**223.0**
08:00 - 08:15	0	0	1	0	0	0	0	1	1.0	0	1	79	18	5	2	0	105	109.5	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	0	0	13	13.0	0	0	39	4	2	10	0	55	69.0
08:15 - 08:30	0	0	3	0	0	0	0	3	3.0	0	0	77	9	5	4	1	96	104.7	0	0	0	0	0	0	0	0	0.0	0	0	10	5	1	0	0	16	16.5	0	0	46	10	5	6	0	67	77.3
08:30 - 08:45	0	0	3	0	0	0	0	3	3.0	0	0	75	16	1	8	0	100	110.9	0	0	0	0	0	0	0	0	0.0	0	0	16	7	0	1	0	24	25.3	0	1	45	5	2	5	0	58	64.9
08:45 - 09:00	0	0	5	1	0	0	1	7	8.0	0	0	73	14	7	6	0	100	111.3	0	0	0	0	0	0	0	0	0.0	0	0	13	4	1	0	0	18	18.5	0	0	48	10	2	6	0	66	74.8
Hourly Total	**0**	**0**	**12**	**1**	**0**	**0**	**1**	**14**	**15.0**	**0**	**1**	**304**	**57**	**18**	**20**	**1**	**401**	**436.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**50**	**18**	**2**	**1**	**0**	**71**	**73.3**	**0**	**1**	**178**	**29**	**11**	**27**	**0**	**246**	**286.0**
09:00 - 09:15	0	0	4	1	0	0	0	5	5.0	0	0	60	16	6	4	0	86	94.2	0	0	0	0	0	0	0	0	0.0	0	0	6	4	1	0	0	11	11.5	0	0	45	19	0	4	0	68	73.2
09:15 - 09:30	0	0	4	0	1	0	0	5	5.5	0	0	32	10	9	3	0	54	62.4	0	0	0	0	0	0	0	0	0.0	0	0	9	4	0	0	0	13	13.0	0	0	53	13	2	5	0	73	80.5
09:30 - 09:45	0	0	2	1	0	0	0	3	3.0	0	0	36	6	9	6	0	57	69.3	0	0	0	0	0	0	0	0	0.0	0	0	13	2	1	0	0	16	16.5	0	0	40	11	5	4	0	60	67.7
09:45 - 10:00	0	0	1	1	0	0	0	2	2.0	0	0	25	11	2	0	1	39	41.0	0	0	0	0	0	0	0	0	0.0	0	0	10	5	0	0	0	15	15.0	0	1	34	4	4	7	0	50	60.5
Hourly Total	**0**	**0**	**11**	**3**	**1**	**0**	**0**	**15**	**15.5**	**0**	**0**	**153**	**43**	**26**	**13**	**1**	**236**	**266.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**38**	**15**	**2**	**0**	**0**	**55**	**56.0**	**0**	**1**	**172**	**47**	**11**	**20**	**0**	**251**	**281.9**
TOTAL	**0**	**0**	**30**	**6**	**2**	**0**	**1**	**39**	**41.0**	**0**	**2**	**682**	**168**	**59**	**43**	**6**	**960**	**1050.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**123**	**45**	**6**	**1**	**0**	**175**	**179.3**	**0**	**2**	**502**	**102**	**29**	**62**	**0**	**697**	**790.9**
16:00 - 16:15	0	0	4	0	0	1	0	5	6.3	0	0	37	11	2	8	0	58	69.4	0	0	0	0	0	0	0	0	0.0	0	0	11	4	0	0	0	15	15.0	0	0	39	10	1	5	0	55	62.0
16:15 - 16:30	0	0	1	1	0	0	0	2	2.0	0	0	49	8	4	6	0	67	76.8	0	0	0	0	0	0	0	0	0.0	0	0	20	4	0	0	0	24	24.0	0	1	47	12	2	3	0	65	69.3
16:30 - 16:45	0	0	2	1	0	1	0	4	5.3	0	1	59	13	3	5	0	81	88.4	0	0	0	0	0	0	0	0	0.0	0	0	18	4	1	0	0	23	23.5	0	3	50	10	4	3	0	70	74.1
16:45 - 17:00	0	0	1	0	0	0	0	1	1.0	0	0	59	6	4	1	0	70	73.3	0	0	0	0	0	0	0	0	0.0	0	0	22	5	0	0	0	27	27.0	0	0	57	9	0	4	0	70	75.2
Hourly Total	**0**	**0**	**8**	**2**	**0**	**2**	**0**	**12**	**14.6**	**0**	**1**	**204**	**38**	**13**	**20**	**0**	**276**	**307.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**71**	**17**	**1**	**0**	**0**	**89**	**89.5**	**0**	**4**	**193**	**41**	**7**	**15**	**0**	**260**	**280.6**
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	0	0	48	11	6	1	0	66	70.3	0	0	0	0	0	0	0	0	0.0	0	0	27	3	0	0	0	30	30.0	0	0	52	3	2	1	0	58	60.3
17:15 - 17:30	0	0	3	0	0	1	0	4	5.3	0	0	61	9	2	5	0	77	84.5	0	0	0	0	0	0	0	0	0.0	0	0	21	4	0	0	0	25	25.0	0	0	57	6	0	5	0	68	74.5
17:30 - 17:45	0	0	3	0	0	0	0	3	3.0	0	0	53	11	3	5	0	72	80.0	0	0	0	0	0	0	0	0	0.0	0	0	27	4	0	0	0	31	31.0	0	0	66	4	0	3	0	73	76.9
17:45 - 18:00	0	0	4	1	1	0	0	6	6.5	0	0	64	5	2	8	2	81	94.4	0	0	0	0	0	0	0	0	0.0	0	0	25	6	2	0	0	33	34.0	0	0	50	9	1	4	0	64	69.7
Hourly Total	**0**	**0**	**11**	**1**	**1**	**1**	**0**	**14**	**15.8**	**0**	**0**	**226**	**36**	**13**	**19**	**2**	**296**	**329.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**100**	**17**	**2**	**0**	**0**	**119**	**120.0**	**0**	**0**	**225**	**22**	**3**	**13**	**0**	**263**	**281.4**
18:00 - 18:15	0	0	4	0	0	0	0	4	4.0	0	1	64	4	4	1	0	74	76.7	0	0	0	0	0	0	0	0	0.0	0	0	20	1	0	0	0	21	21.0	0	0	45	13	1	4	0	63	68.7
18:15 - 18:30	0	0	4	0	0	0	0	4	4.0	0	0	37	4	0	4	0	45	50.2	0	0	0	0	0	0	0	0	0.0	0	0	14	4	0	0	0	18	18.0	0	0	44	5	0	7	0	56	65.1
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	50	4	4	2	0	60	64.6	0	0	0	0	0	0	0	0	0.0	0	1	14	2	0	0	0	17	16.4	0	0	26	2	1	2	0	31	34.1
18:45 - 19:00	0	0	1	1	0	0	0	2	2.0	0	0	35	4	2	1	0	42	44.3	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	0	0	13	13.0	0	0	31	2	2	2	0	37	40.6
Hourly Total	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**11**	**11.0**	**0**	**1**	**186**	**16**	**10**	**8**	**0**	**221**	**235.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**59**	**9**	**0**	**0**	**0**	**69**	**68.4**	**0**	**0**	**146**	**22**	**4**	**15**	**0**	**187**	**208.5**
TOTAL	**0**	**0**	**29**	**4**	**1**	**3**	**0**	**37**	**41.4**	**0**	**2**	**616**	**90**	**36**	**47**	**2**	**793**	**872.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**230**	**43**	**3**	**0**	**0**	**277**	**277.9**	**0**	**4**	**564**	**85**	**14**	**43**	**0**	**710**	**770.5**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: Ryecroft Road

	To Trent Lane									To A50 J1 Slip Road (W)									To B5010									To B6540									To A50 J1 Slip Road (E)								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	1	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	3	2	0	0	0	5	5.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0
07:30 - 07:45	0	0	1	1	0	0	1	3	4.0	0	0	4	1	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0
07:45 - 08:00	0	0	2	1	0	0	0	3	3.0	0	0	2	1	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	4	1	0	0	0	5	5.0
Hourly Total	**0**	**0**	**5**	**3**	**0**	**0**	**1**	**9**	**10.0**	**0**	**0**	**9**	**3**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**11**	**11.0**	**0**	**0**	**12**	**4**	**0**	**0**	**0**	**16**	**16.0**
08:00 - 08:15	0	0	2	0	0	0	0	2	2.0	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
08:15 - 08:30	0	0	6	0	0	0	0	6	6.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0
08:30 - 08:45	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
08:45 - 09:00	0	0	2	2	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	4	1	0	0	0	5	5.0
Hourly Total	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**6**	**2**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**6**	**2**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**11**	**2**	**0**	**0**	**0**	**13**	**13.0**
09:00 - 09:15	0	0	1	0	0	1	0	2	3.3	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	3	1	0	0	0	4	4.0
09:15 - 09:30	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0	0	0	4	2	0	0	0	6	6.0	0	0	3	0	0	0	0	3	3.0
09:30 - 09:45	0	0	2	1	0	0	0	3	3.0	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0
09:45 - 10:00	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**7**	**1**	**0**	**1**	**0**	**9**	**10.3**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**12**	**3**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**11**	**11.0**
TOTAL	**0**	**0**	**24**	**6**	**0**	**1**	**1**	**32**	**34.3**	**0**	**0**	**23**	**7**	**0**	**0**	**0**	**30**	**30.0**	**0**	**0**	**8**	**2**	**0**	**0**	**0**	**10**	**10.0**	**0**	**0**	**27**	**7**	**0**	**0**	**0**	**34**	**34.0**	**0**	**0**	**32**	**8**	**0**	**0**	**0**	**40**	**40.0**
16:00 - 16:15	0	0	3	1	0	0	0	4	4.0	0	0	5	1	0	0	0	6	6.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	0	0	5	0	0	0	0	5	5.0	0	0	2	1	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0
16:45 - 17:00	0	0	1	1	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**13**	**3**	**0**	**0**	**0**	**16**	**16.0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**14**	**2**	**0**	**0**	**0**	**16**	**16.0**
17:00 - 17:15	0	0	1	0	0	0	0	1	1.0	0	0	6	0	0	0	0	6	6.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0	0	0	6	1	0	0	0	7	7.0
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	3	2	0	0	0	5	5.0	0	0	1	0	0	0	0	1	1.0
17:30 - 17:45	0	0	4	1	0	1	0	6	7.3	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	2	1	0	0	0	3	3.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	**0**	**0**	**8**	**1**	**0**	**1**	**0**	**10**	**11.3**	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**11**	**4**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**16**	**1**	**0**	**0**	**0**	**17**	**17.0**
18:00 - 18:15	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0	2	0	4	0	0	0	0	6	4.4	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	2	1	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	1	0	0	3	3.5
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	3	1	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**7.0**	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**12**	**12.0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**6.0**	**2**	**0**	**10**	**1**	**0**	**0**	**0**	**13**	**11.4**	**0**	**0**	**10**	**0**	**1**	**0**	**0**	**11**	**11.5**
TOTAL	**0**	**0**	**24**	**4**	**0**	**1**	**0**	**29**	**30.3**	**0**	**0**	**38**	**5**	**0**	**0**	**0**	**43**	**43.0**	**0**	**0**	**16**	**1**	**0**	**0**	**0**	**17**	**17.0**	**2**	**0**	**33**	**7**	**0**	**0**	**0**	**42**	**40.4**	**0**	**0**	**40**	**3**	**1**	**0**	**0**	**44**	**44.5**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: Trent Lane

	To A50 J1 Slip Road (W)									To B5010									To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	38	14	2	4	0	58	64.2	0	0	5	1	0	0	0	6	6.0	0	0	15	2	0	1	1	19	21.3	0	0	38	8	2	3	0	51	55.9	0	0	1	0	0	0	0	1	1.0
07:15 - 07:30	0	0	44	12	8	7	0	71	84.1	0	0	4	1	0	0	1	6	7.0	0	0	13	2	1	1	1	18	20.8	0	0	43	7	4	2	0	56	60.6	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	0	70	13	6	1	0	90	94.3	0	0	8	1	1	0	1	11	12.5	0	0	26	4	2	0	1	33	35.0	0	0	57	10	7	0	0	74	77.5	0	0	3	0	0	0	0	3	3.0
07:45 - 08:00	0	0	62	15	3	3	0	83	88.4	0	0	8	2	2	0	0	12	13.0	0	0	30	3	2	1	1	37	40.3	0	0	45	8	4	3	0	60	65.9	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**214**	**54**	**19**	**15**	**0**	**302**	**331.0**	**0**	**0**	**25**	**5**	**3**	**0**	**2**	**35**	**38.5**	**0**	**0**	**84**	**11**	**5**	**3**	**4**	**107**	**117.4**	**0**	**0**	**183**	**33**	**17**	**8**	**0**	**241**	**259.9**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**7**	**7.0**
08:00 - 08:15	0	0	69	4	1	3	0	77	81.4	0	0	7	1	0	0	2	10	12.0	1	0	19	10	1	1	2	34	37.0	0	0	59	5	6	7	0	77	89.1	0	0	4	1	0	0	0	5	5.0
08:15 - 08:30	0	0	55	11	4	3	0	73	78.9	0	0	5	3	1	0	0	9	9.5	0	0	19	6	1	0	2	28	30.5	0	0	38	8	4	0	0	50	52.0	0	0	2	0	0	0	0	2	2.0
08:30 - 08:45	0	0	37	5	2	2	0	46	49.6	0	0	8	3	0	0	0	11	11.0	0	0	18	3	1	1	0	23	24.8	0	0	33	9	4	2	0	48	52.6	0	0	3	1	0	0	0	4	4.0
08:45 - 09:00	0	0	40	5	2	2	0	49	52.6	0	0	6	3	1	0	2	12	14.5	0	1	18	6	0	1	0	26	26.7	0	0	45	8	2	4	0	59	65.2	0	0	4	0	0	0	0	4	4.0
Hourly Total	**0**	**0**	**201**	**25**	**9**	**10**	**0**	**245**	**262.5**	**0**	**0**	**26**	**10**	**2**	**0**	**4**	**42**	**47.0**	**1**	**1**	**74**	**25**	**3**	**3**	**4**	**111**	**119.0**	**0**	**0**	**175**	**30**	**16**	**13**	**0**	**234**	**258.9**	**0**	**0**	**13**	**2**	**0**	**0**	**0**	**15**	**15.0**
09:00 - 09:15	0	1	33	13	2	2	0	51	54.0	0	0	4	0	1	0	0	5	5.5	0	1	27	0	0	1	0	29	29.7	0	0	36	3	5	5	0	49	58.0	0	0	5	0	0	0	0	5	5.0
09:15 - 09:30	0	0	28	8	1	1	0	38	39.8	0	0	4	2	0	0	3	9	12.0	0	1	17	6	0	1	0	25	25.7	0	0	26	5	5	5	0	41	50.0	0	0	3	1	0	0	0	4	4.0
09:30 - 09:45	0	0	32	10	0	3	0	45	48.9	0	0	7	1	1	0	1	10	11.5	0	0	17	3	1	1	2	24	27.8	0	0	31	13	7	4	0	55	63.7	0	0	3	0	0	0	0	3	3.0
09:45 - 10:00	0	0	27	7	3	1	0	38	40.8	0	0	5	2	0	0	0	7	7.0	0	0	15	2	1	1	1	20	22.8	0	0	21	9	7	7	0	44	56.6	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**1**	**120**	**38**	**6**	**7**	**0**	**172**	**183.5**	**0**	**0**	**20**	**5**	**2**	**0**	**4**	**31**	**36.0**	**0**	**2**	**76**	**11**	**2**	**4**	**3**	**98**	**106.0**	**0**	**0**	**114**	**30**	**24**	**21**	**0**	**189**	**228.3**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**14**	**14.0**
TOTAL	**0**	**1**	**535**	**117**	**34**	**32**	**0**	**719**	**777.0**	**0**	**0**	**71**	**20**	**7**	**0**	**10**	**108**	**121.5**	**1**	**3**	**234**	**47**	**10**	**10**	**11**	**316**	**342.4**	**0**	**0**	**472**	**93**	**57**	**42**	**0**	**664**	**747.1**	**0**	**0**	**33**	**3**	**0**	**0**	**0**	**36**	**36.0**
16:00 - 16:15	0	0	99	18	4	3	0	124	129.9	0	1	17	2	0	0	0	20	19.4	0	2	53	4	0	2	3	64	68.4	0	0	98	20	3	2	0	123	127.1	0	0	4	2	0	0	0	6	6.0
16:15 - 16:30	0	0	67	8	3	2	0	80	84.1	0	0	19	3	0	0	0	22	22.0	0	4	43	6	1	0	0	54	52.1	0	0	66	15	4	3	0	88	93.9	0	0	4	0	0	0	0	4	4.0
16:30 - 16:45	0	1	84	14	1	2	0	102	104.5	0	0	22	3	0	0	0	25	25.0	0	3	57	5	0	0	0	65	63.2	0	0	88	13	0	1	0	102	103.3	0	0	4	0	0	0	0	4	4.0
16:45 - 17:00	0	1	82	8	1	2	0	94	96.5	0	1	19	3	0	0	3	26	28.4	0	4	44	3	2	1	3	57	59.9	0	0	66	11	2	3	0	82	86.9	0	0	5	1	0	0	0	6	6.0
Hourly Total	**0**	**2**	**332**	**48**	**9**	**9**	**0**	**400**	**415.0**	**0**	**2**	**77**	**11**	**0**	**0**	**3**	**93**	**94.8**	**0**	**13**	**197**	**18**	**3**	**3**	**6**	**240**	**243.6**	**0**	**0**	**318**	**59**	**9**	**9**	**0**	**395**	**411.2**	**0**	**0**	**17**	**3**	**0**	**0**	**0**	**20**	**20.0**
17:00 - 17:15	0	0	137	5	3	5	0	150	158.0	0	1	29	2	0	0	0	32	31.4	0	4	62	3	0	1	0	70	68.9	0	0	119	7	2	2	0	130	133.6	0	0	5	2	0	0	0	7	7.0
17:15 - 17:30	0	1	92	6	2	2	0	103	106.0	0	0	20	5	0	0	0	25	25.0	0	2	49	7	0	1	1	60	61.1	0	0	87	10	4	3	0	104	109.9	0	0	4	0	0	0	0	4	4.0
17:30 - 17:45	0	2	120	3	1	0	0	126	125.3	0	2	24	2	0	0	0	28	26.8	0	1	56	4	0	0	2	63	64.4	0	0	90	7	1	2	0	100	103.1	0	0	2	1	0	0	0	3	3.0
17:45 - 18:00	0	0	92	11	0	3	0	106	109.9	0	1	18	3	0	0	0	22	21.4	0	0	33	4	0	0	0	37	37.0	0	0	57	6	0	2	0	65	67.6	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**3**	**441**	**25**	**6**	**10**	**0**	**485**	**499.2**	**0**	**4**	**91**	**12**	**0**	**0**	**0**	**107**	**104.6**	**0**	**7**	**200**	**18**	**0**	**2**	**3**	**230**	**231.4**	**0**	**0**	**353**	**30**	**7**	**9**	**0**	**399**	**414.2**	**0**	**0**	**14**	**3**	**0**	**0**	**0**	**17**	**17.0**
18:00 - 18:15	0	2	101	6	2	1	0	112	113.1	0	0	23	1	0	0	3	27	30.0	0	3	47	2	1	0	2	55	55.7	0	0	73	3	0	0	1	77	78.0	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	2	62	6	0	1	0	71	71.1	0	0	15	3	0	0	0	18	18.0	0	3	38	3	1	1	0	46	46.0	0	1	70	6	1	2	0	80	82.5	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	99	5	1	2	0	107	110.1	0	1	22	2	0	0	1	26	26.4	0	2	35	2	0	1	1	41	42.1	0	0	54	2	2	1	0	59	61.3	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	38	6	1	1	0	46	47.8	0	0	11	0	0	0	0	11	11.0	0	2	29	0	0	0	1	32	31.8	0	0	37	0	2	0	0	39	40.0	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**4**	**300**	**23**	**4**	**5**	**0**	**336**	**342.1**	**0**	**1**	**71**	**6**	**0**	**0**	**4**	**82**	**85.4**	**0**	**10**	**149**	**7**	**2**	**2**	**4**	**174**	**175.6**	**0**	**1**	**234**	**11**	**5**	**3**	**1**	**255**	**261.8**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**
TOTAL	**0**	**9**	**1073**	**96**	**19**	**24**	**0**	**1221**	**1256.3**	**0**	**7**	**239**	**29**	**0**	**0**	**7**	**282**	**284.8**	**0**	**30**	**546**	**43**	**5**	**7**	**13**	**644**	**650.6**	**0**	**1**	**905**	**100**	**21**	**21**	**1**	**1049**	**1087.2**	**0**	**0**	**39**	**6**	**0**	**0**	**0**	**45**	**45.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Thursday 21st September 2023
Junction: 3
Approach: A50 J1 Slip Road West

	To B5010									To B6540									To A50 J1 Slip Road (E)									To Ryecroft Road									To Trent Lane								
TIME	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCL	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	2	2.0	0	0	27	9	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	40	10	4	3	0	57	62.9
07:15 - 07:30	0	0	0	1	0	0	0	1	1.0	0	0	33	8	1	2	0	44	47.1	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	76	12	3	3	0	94	99.4
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	47	4	2	6	0	59	67.8	0	0	0	0	0	0	0	0	0.0	0	0	4	1	0	0	0	5	5.0	0	1	79	14	3	6	0	103	111.7
07:45 - 08:00	0	0	4	2	0	0	0	6	6.0	0	0	35	7	1	4	0	47	52.7	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	91	10	3	1	0	105	107.8
Hourly Total	**0**	**0**	**6**	**3**	**0**	**0**	**0**	**9**	**9.0**	**0**	**0**	**142**	**28**	**5**	**13**	**0**	**188**	**207.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**11**	**11.0**	**0**	**1**	**286**	**46**	**13**	**13**	**0**	**359**	**381.8**
08:00 - 08:15	0	0	3	1	0	0	0	4	4.0	0	0	40	11	2	9	0	62	74.7	0	0	0	0	0	0	0	0	0.0	0	0	4	0	0	0	0	4	4.0	0	0	72	14	4	3	0	93	98.9
08:15 - 08:30	0	0	4	0	0	0	0	4	4.0	0	0	37	8	1	3	0	49	53.4	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	88	16	6	6	0	116	126.8
08:30 - 08:45	0	0	7	3	0	0	0	10	10.0	0	0	39	7	1	2	0	49	52.1	0	0	0	0	0	0	0	0	0.0	0	0	4	1	0	0	0	5	5.0	0	0	90	8	3	2	0	103	107.1
08:45 - 09:00	0	0	1	1	0	0	0	2	2.0	0	0	44	6	0	5	0	55	61.5	0	0	0	0	0	0	0	0	0.0	0	0	6	1	0	1	0	8	9.3	0	0	84	6	4	5	0	99	107.5
Hourly Total	**0**	**0**	**15**	**5**	**0**	**0**	**0**	**20**	**20.0**	**0**	**0**	**160**	**32**	**4**	**19**	**0**	**215**	**241.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**17**	**2**	**0**	**1**	**0**	**20**	**21.3**	**0**	**0**	**334**	**44**	**17**	**16**	**0**	**411**	**440.3**
09:00 - 09:15	0	0	0	2	0	0	0	2	2.0	0	0	28	3	3	1	0	35	37.8	0	0	0	0	0	0	0	0	0.0	0	0	4	1	0	0	0	5	5.0	0	0	34	11	5	5	0	55	64.0
09:15 - 09:30	0	0	4	1	0	0	0	5	5.0	0	0	23	8	0	7	0	38	47.1	0	0	0	0	0	0	0	0	0.0	0	0	4	1	0	0	0	5	5.0	0	0	42	7	3	7	0	59	69.6
09:30 - 09:45	0	0	4	1	0	0	0	5	5.0	0	0	20	8	1	2	0	31	34.1	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	32	9	2	4	0	47	53.2
09:45 - 10:00	0	0	4	2	0	0	0	6	6.0	0	1	30	10	1	4	0	46	51.1	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	31	5	1	2	0	39	42.1
Hourly Total	**0**	**0**	**12**	**6**	**0**	**0**	**0**	**18**	**18.0**	**0**	**1**	**101**	**29**	**5**	**14**	**0**	**150**	**170.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**13**	**3**	**0**	**0**	**0**	**16**	**16.0**	**0**	**0**	**139**	**32**	**11**	**18**	**0**	**200**	**228.9**
TOTAL	**0**	**0**	**33**	**14**	**0**	**0**	**0**	**47**	**47.0**	**0**	**1**	**403**	**89**	**14**	**46**	**0**	**553**	**619.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**40**	**6**	**0**	**1**	**0**	**47**	**48.3**	**0**	**1**	**759**	**122**	**41**	**47**	**0**	**970**	**1051.0**
16:00 - 16:15	0	0	6	0	0	0	0	6	6.0	0	0	45	8	2	0	0	55	56.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	53	7	2	4	0	66	72.2
16:15 - 16:30	0	0	5	0	0	0	0	5	5.0	0	0	41	8	1	3	0	53	57.4	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	52	11	4	5	0	72	80.5
16:30 - 16:45	0	0	5	1	0	0	0	6	6.0	0	1	38	7	0	1	0	47	47.7	0	0	0	0	0	0	0	0	0.0	0	0	4	2	0	0	0	6	6.0	0	0	57	7	3	3	0	70	75.4
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	37	6	0	1	0	44	45.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	55	9	1	4	0	69	74.7
Hourly Total	**0**	**0**	**21**	**1**	**0**	**0**	**0**	**22**	**22.0**	**0**	**1**	**161**	**29**	**3**	**5**	**0**	**199**	**206.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**11**	**4**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**217**	**34**	**10**	**16**	**0**	**277**	**302.8**
17:00 - 17:15	0	0	4	2	0	0	0	6	6.0	0	1	31	7	1	1	0	41	42.2	0	0	0	0	0	0	0	0	0.0	0	0	4	0	0	0	0	4	4.0	0	0	74	8	4	3	0	89	94.9
17:15 - 17:30	0	1	4	0	0	0	0	5	4.4	0	1	41	7	0	2	0	51	53.0	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	63	10	0	2	0	75	77.6
17:30 - 17:45	0	0	5	0	0	0	0	5	5.0	0	0	50	7	0	1	0	58	59.3	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	2	95	4	1	2	0	104	105.9
17:45 - 18:00	0	0	4	0	0	0	0	4	4.0	0	0	36	6	0	1	0	43	44.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0	0	0	85	6	3	3	0	97	102.4
Hourly Total	**0**	**1**	**17**	**2**	**0**	**0**	**0**	**20**	**19.4**	**0**	**2**	**158**	**27**	**1**	**5**	**0**	**193**	**198.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**14**	**14.0**	**0**	**2**	**317**	**28**	**8**	**10**	**0**	**365**	**380.8**
18:00 - 18:15	0	0	6	1	0	0	0	7	7.0	0	0	43	4	0	2	0	49	51.6	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	3	67	4	0	2	0	76	76.8
18:15 - 18:30	0	0	3	0	0	0	0	3	3.0	0	0	25	2	2	0	0	29	30.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	2	62	4	0	0	0	68	66.8
18:30 - 18:45	0	0	5	0	0	0	0	5	5.0	0	2	31	1	0	1	0	35	35.1	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	58	3	0	3	0	64	67.9
18:45 - 19:00	0	0	6	0	0	0	0	6	6.0	0	1	18	2	0	0	0	21	20.4	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	49	2	0	0	0	51	51.0
Hourly Total	**0**	**0**	**20**	**1**	**0**	**0**	**0**	**21**	**21.0**	**0**	**3**	**117**	**9**	**2**	**3**	**0**	**134**	**137.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**	**0**	**5**	**236**	**13**	**0**	**5**	**0**	**259**	**262.5**
TOTAL	**0**	**1**	**58**	**4**	**0**	**0**	**0**	**63**	**62.4**	**0**	**6**	**436**	**65**	**6**	**13**	**0**	**526**	**542.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**29**	**6**	**0**	**0**	**0**	**35**	**35.0**	**0**	**7**	**770**	**75**	**18**	**31**	**0**	**901**	**946.1**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 13 – M1 Junction 25 Turning Count Results

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: M1 J25 Slip Road North

	To A52 (E)									To Bostocks Lane (E)									To M1 J25 Slip Road (S)									To A52 (W)									To Bostocks Lane (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	28	14	1	3	0	46	50.4	0	1	39	7	8	1	0	56	60.7	0	0	0	0	0	0	0	0	0.0	0	0	104	45	8	4	0	161	170.2	0	1	13	6	2	2	0	24	27.0
07:15 - 07:30	0	0	47	19	2	0	0	68	69.0	0	0	50	26	2	2	0	80	83.6	0	0	0	0	0	0	0	0	0.0	0	0	126	37	5	4	0	172	179.7	0	0	29	7	2	2	0	40	43.6
07:30 - 07:45	0	0	59	25	1	1	0	86	87.8	0	2	37	9	5	1	0	54	56.6	0	0	0	0	0	0	0	0	0.0	0	0	121	41	9	2	0	173	180.1	0	0	20	12	1	1	0	34	35.8
07:45 - 08:00	0	0	54	22	2	2	0	80	83.6	0	1	67	20	4	1	0	93	95.7	0	0	0	0	0	0	0	0	0.0	0	1	111	33	5	4	0	154	161.1	0	0	27	4	2	0	0	33	34.0
Hourly Total	**0**	**0**	**188**	**80**	**6**	**6**	**0**	**280**	**290.8**	**0**	**4**	**193**	**62**	**19**	**5**	**0**	**283**	**296.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**462**	**156**	**27**	**14**	**0**	**660**	**691.1**	**0**	**1**	**89**	**29**	**7**	**5**	**0**	**131**	**140.4**
08:00 - 08:15	0	0	58	18	2	2	0	80	83.6	0	0	66	14	6	0	0	86	89.0	0	0	0	0	0	0	0	0	0.0	0	1	111	28	6	0	0	146	148.4	0	0	28	9	6	0	0	43	46.0
08:15 - 08:30	0	0	73	14	4	3	0	94	99.9	0	1	36	15	1	2	0	55	57.5	0	0	0	0	0	0	0	0	0.0	0	0	98	31	5	2	0	136	141.1	0	0	29	9	1	0	0	39	39.5
08:30 - 08:45	0	1	78	16	4	2	0	101	105.0	0	1	60	19	4	5	0	89	96.9	0	0	0	0	0	0	0	0	0.0	0	0	100	20	5	1	0	126	129.8	0	0	30	5	2	1	0	38	40.3
08:45 - 09:00	0	0	35	7	4	3	0	49	54.9	0	0	22	6	0	0	0	28	28.0	0	0	0	0	0	0	0	0	0.0	0	0	52	17	1	2	0	72	75.1	0	0	17	4	1	4	0	26	31.7
Hourly Total	**0**	**1**	**244**	**55**	**14**	**10**	**0**	**324**	**343.4**	**0**	**2**	**184**	**54**	**11**	**7**	**0**	**258**	**271.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**361**	**96**	**17**	**5**	**0**	**480**	**494.4**	**0**	**0**	**104**	**27**	**10**	**5**	**0**	**146**	**157.5**
09:00 - 09:15	0	0	25	9	4	0	0	38	40.0	0	0	27	12	1	1	0	41	42.8	0	0	0	0	0	0	0	0	0.0	0	0	51	14	2	2	0	69	72.6	0	0	16	6	1	1	0	24	25.8
09:15 - 09:30	0	0	55	10	3	0	0	68	69.5	0	0	32	6	0	0	0	38	38.0	0	0	0	0	0	0	0	0	0.0	0	0	50	18	7	1	0	76	80.8	0	0	21	9	2	1	0	33	35.3
09:30 - 09:45	0	0	42	7	3	0	0	52	53.5	0	0	21	5	0	1	0	27	28.3	0	0	0	0	0	0	0	0	0.0	0	0	63	13	5	7	0	88	99.6	0	0	24	7	3	1	0	35	37.8
09:45 - 10:00	0	0	27	8	3	3	0	41	46.4	0	0	27	13	2	0	0	42	43.0	0	0	0	0	0	0	0	0	0.0	0	0	25	13	6	4	0	48	56.2	0	0	15	5	2	1	0	23	25.3
Hourly Total	**0**	**0**	**149**	**34**	**13**	**3**	**0**	**199**	**209.4**	**0**	**0**	**107**	**36**	**3**	**2**	**0**	**148**	**152.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**189**	**58**	**20**	**14**	**0**	**281**	**309.2**	**0**	**0**	**76**	**27**	**8**	**4**	**0**	**115**	**124.2**
TOTAL	**0**	**1**	**581**	**169**	**33**	**19**	**0**	**803**	**843.6**	**0**	**6**	**484**	**152**	**33**	**14**	**0**	**689**	**720.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**1012**	**310**	**64**	**33**	**0**	**1421**	**1494.7**	**0**	**1**	**269**	**83**	**25**	**14**	**0**	**392**	**422.1**
16:00 - 16:15	0	0	33	17	3	2	0	55	59.1	0	0	40	13	0	0	0	53	53.0	0	0	0	0	0	0	0	0	0.0	0	0	59	19	2	3	1	84	89.9	0	0	16	13	3	0	0	32	33.5
16:15 - 16:30	0	0	49	16	2	1	0	68	70.3	0	0	60	13	2	0	0	75	76.0	0	0	0	0	0	0	0	0	0.0	0	0	63	20	2	6	0	91	99.8	0	0	20	6	2	1	0	29	31.3
16:30 - 16:45	0	2	57	13	2	0	0	74	73.8	0	0	47	11	0	0	0	58	58.0	0	0	0	0	0	0	0	0	0.0	0	0	60	8	1	2	0	71	74.1	0	0	28	15	2	1	0	46	48.3
16:45 - 17:00	0	0	55	4	0	0	0	59	59.0	0	0	41	11	0	0	1	53	54.0	0	0	0	0	0	0	0	0	0.0	0	0	61	18	2	0	0	81	82.0	0	0	27	9	1	0	0	37	37.5
Hourly Total	**0**	**2**	**194**	**50**	**7**	**3**	**0**	**256**	**262.2**	**0**	**0**	**188**	**48**	**2**	**0**	**1**	**239**	**241.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**243**	**65**	**7**	**11**	**1**	**327**	**345.8**	**0**	**0**	**91**	**43**	**8**	**2**	**0**	**144**	**150.6**
17:00 - 17:15	0	1	38	14	3	0	0	56	56.9	0	0	42	15	2	0	0	59	60.0	0	0	0	0	0	0	0	0	0.0	0	0	54	12	2	2	0	70	73.6	0	0	24	12	0	2	0	38	40.6
17:15 - 17:30	0	0	62	5	2	0	0	69	70.0	0	0	67	12	0	0	0	79	79.0	0	0	0	0	0	0	0	0	0.0	0	0	73	7	1	4	0	85	90.7	0	0	32	10	4	2	0	48	52.6
17:30 - 17:45	0	0	57	10	0	1	0	68	69.3	0	0	52	8	0	0	0	60	60.0	0	0	0	0	0	0	0	0	0.0	0	0	45	6	2	2	0	55	58.6	0	0	26	7	2	1	0	36	38.3
17:45 - 18:00	0	1	63	10	1	1	0	76	77.2	0	1	48	8	1	0	0	58	57.9	0	0	0	0	0	0	0	0	0.0	0	0	54	8	1	0	1	64	65.5	0	1	23	4	1	0	0	29	28.9
Hourly Total	**0**	**2**	**220**	**39**	**6**	**2**	**0**	**269**	**273.4**	**0**	**1**	**209**	**43**	**3**	**0**	**0**	**256**	**256.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**226**	**33**	**6**	**8**	**1**	**274**	**288.4**	**0**	**1**	**105**	**33**	**7**	**5**	**0**	**151**	**160.4**
18:00 - 18:15	0	0	47	6	0	1	0	54	55.3	0	0	39	8	2	0	0	49	50.0	0	0	0	0	0	0	0	0	0.0	0	0	45	9	0	0	0	54	54.0	0	0	25	4	2	2	0	33	36.6
18:15 - 18:30	0	0	41	5	0	0	0	46	46.0	0	0	54	5	3	1	0	63	65.8	0	0	0	0	0	0	0	0	0.0	0	0	41	8	0	2	0	51	53.6	0	0	18	2	0	2	0	22	24.6
18:30 - 18:45	0	0	31	2	0	0	0	33	33.0	0	0	42	3	0	4	0	49	54.2	0	0	0	0	0	0	0	0	0.0	0	0	36	8	2	0	0	46	47.0	0	0	14	3	2	0	0	19	20.0
18:45 - 19:00	0	0	33	5	1	1	0	40	41.8	0	0	32	2	0	7	0	41	50.1	0	0	0	0	0	0	0	0	0.0	0	0	33	6	0	0	0	39	39.0	0	0	16	2	0	0	0	18	18.0
Hourly Total	**0**	**0**	**152**	**18**	**1**	**2**	**0**	**173**	**176.1**	**0**	**0**	**167**	**18**	**5**	**12**	**0**	**202**	**220.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**155**	**31**	**2**	**2**	**0**	**190**	**193.6**	**0**	**0**	**73**	**11**	**4**	**4**	**0**	**92**	**99.2**
TOTAL	**0**	**4**	**566**	**107**	**14**	**7**	**0**	**698**	**711.7**	**0**	**1**	**564**	**109**	**10**	**12**	**1**	**697**	**718.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**624**	**129**	**15**	**21**	**2**	**791**	**827.8**	**0**	**1**	**269**	**87**	**19**	**11**	**0**	**387**	**410.2**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: A52 East

	To Bostocks Lane (E)									To M1 J25 Slip Road (S)									To A52 (W)									To Bostocks Lane (W)									To M1 J25 Slip Road (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	12	3	0	0	0	15	15.0	0	0	123	21	2	2	0	148	151.6	0	0	0	0	0	0	0	0	0.0	0	0	9	2	0	0	1	12	13.0	0	0	40	12	2	1	0	55	57.3
07:15 - 07:30	0	0	35	9	0	0	0	44	44.0	0	1	94	20	2	1	0	118	119.7	0	0	0	0	0	0	0	0	0.0	0	0	16	2	1	1	0	20	21.8	0	0	73	10	5	0	0	88	90.5
07:30 - 07:45	0	0	36	0	0	1	0	37	38.3	0	0	97	20	3	0	1	121	123.5	0	0	0	0	0	0	0	0	0.0	0	0	22	4	1	0	0	27	27.5	0	0	90	15	2	2	0	109	112.6
07:45 - 08:00	0	0	36	5	0	0	0	41	41.0	0	0	99	27	6	3	2	137	145.9	0	0	0	0	0	0	0	0	0.0	0	0	17	2	1	0	0	20	20.5	0	1	59	9	5	0	0	74	75.9
Hourly Total	**0**	**0**	**119**	**17**	**0**	**1**	**0**	**137**	**138.3**	**0**	**1**	**413**	**88**	**13**	**6**	**3**	**524**	**540.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**64**	**10**	**3**	**1**	**1**	**79**	**82.8**	**0**	**1**	**262**	**46**	**14**	**3**	**0**	**326**	**336.3**
08:00 - 08:15	0	0	40	8	1	0	0	49	49.5	0	2	103	7	3	3	0	118	122.2	0	0	0	0	0	0	0	0	0.0	0	0	12	3	1	0	0	16	16.5	0	0	46	7	3	2	0	58	62.1
08:15 - 08:30	0	0	57	7	1	1	0	66	67.8	0	1	64	12	2	1	0	80	81.7	0	0	0	0	0	0	0	0	0.0	0	0	29	3	1	0	0	33	33.5	0	0	68	9	1	4	0	82	87.7
08:30 - 08:45	0	0	39	2	0	0	0	41	41.0	0	0	69	17	3	3	0	92	97.4	0	0	0	0	0	0	0	0	0.0	0	0	16	5	1	1	0	23	24.8	0	0	48	7	2	1	0	58	60.3
08:45 - 09:00	0	0	29	6	2	1	0	38	40.3	0	0	69	12	5	2	0	88	93.1	0	0	0	0	0	0	0	0	0.0	0	0	27	3	1	1	0	32	33.8	0	0	36	7	1	3	0	47	51.4
Hourly Total	**0**	**0**	**165**	**23**	**4**	**2**	**0**	**194**	**198.6**	**0**	**3**	**305**	**48**	**13**	**9**	**0**	**378**	**394.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**84**	**14**	**4**	**2**	**0**	**104**	**108.6**	**0**	**0**	**198**	**30**	**7**	**10**	**0**	**245**	**261.5**
09:00 - 09:15	0	0	25	2	1	0	0	28	28.5	0	1	46	10	2	6	2	67	77.2	0	0	0	0	0	0	0	0	0.0	0	0	14	3	1	1	0	19	20.8	0	0	39	8	4	1	1	53	57.3
09:15 - 09:30	0	0	20	11	1	0	0	32	32.5	0	0	60	9	4	1	0	74	77.3	0	0	0	0	0	0	0	0	0.0	0	0	13	3	1	1	0	18	19.8	0	0	33	7	3	1	0	44	46.8
09:30 - 09:45	0	0	28	4	0	0	0	32	32.0	0	0	39	10	6	2	0	57	62.6	0	0	0	0	0	0	0	0	0.0	0	0	20	5	1	1	0	27	28.8	0	0	41	7	2	1	1	52	55.3
09:45 - 10:00	0	0	26	5	0	0	0	31	31.0	0	0	38	6	2	2	0	48	51.6	0	0	0	0	0	0	0	0	0.0	0	0	12	2	1	1	0	16	17.8	0	0	18	4	1	1	0	24	25.8
Hourly Total	**0**	**0**	**99**	**22**	**2**	**0**	**0**	**123**	**124.0**	**0**	**1**	**183**	**35**	**14**	**11**	**2**	**246**	**268.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**59**	**13**	**4**	**4**	**0**	**80**	**87.2**	**0**	**0**	**131**	**26**	**10**	**4**	**2**	**173**	**185.2**
TOTAL	**0**	**0**	**383**	**62**	**6**	**3**	**0**	**454**	**460.9**	**0**	**5**	**901**	**171**	**40**	**26**	**5**	**1148**	**1203.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**207**	**37**	**11**	**7**	**1**	**263**	**278.6**	**0**	**1**	**591**	**102**	**31**	**17**	**2**	**744**	**783.0**
16:00 - 16:15	0	2	66	13	3	0	0	84	84.3	0	1	87	10	4	0	0	102	103.4	0	0	0	0	0	0	0	0	0.0	0	0	23	5	1	0	0	29	29.5	0	1	51	20	4	0	0	76	77.4
16:15 - 16:30	0	1	84	9	1	0	0	95	94.9	0	0	89	16	3	1	1	110	113.8	0	0	0	0	0	0	0	0	0.0	0	1	17	4	1	1	0	24	25.2	0	0	56	13	2	0	0	71	72.0
16:30 - 16:45	0	0	82	11	2	0	0	95	96.0	0	0	61	14	4	1	0	80	83.3	0	0	0	0	0	0	0	0	0.0	0	0	27	13	1	1	0	42	43.8	0	1	83	20	2	0	0	106	106.4
16:45 - 17:00	0	1	89	9	0	0	0	99	98.4	0	0	76	15	1	1	0	93	94.8	0	0	0	0	0	0	0	0	0.0	0	0	32	5	1	1	0	39	40.8	0	2	92	11	3	0	0	108	108.3
Hourly Total	**0**	**4**	**321**	**42**	**6**	**0**	**0**	**373**	**373.6**	**0**	**1**	**313**	**55**	**12**	**3**	**1**	**385**	**395.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**99**	**27**	**4**	**3**	**0**	**134**	**139.3**	**0**	**4**	**282**	**64**	**11**	**0**	**0**	**361**	**364.1**
17:00 - 17:15	0	0	88	8	2	0	0	98	99.0	0	0	88	13	2	3	0	106	110.9	0	0	0	0	0	0	0	0	0.0	0	0	29	6	0	1	0	36	37.3	0	0	84	18	3	3	1	109	115.4
17:15 - 17:30	0	0	98	9	1	0	0	108	108.5	0	0	103	14	0	1	0	118	119.3	0	0	0	0	0	0	0	0	0.0	0	0	22	6	0	0	0	28	28.0	0	0	70	11	0	1	0	82	83.3
17:30 - 17:45	0	1	87	10	0	0	0	98	97.4	0	0	79	7	1	1	0	88	89.8	0	0	0	0	0	0	0	0	0.0	0	0	26	4	1	1	0	32	33.8	0	0	60	12	1	0	0	73	73.6
17:45 - 18:00	0	0	97	9	0	0	0	106	106.0	0	0	95	6	0	0	1	102	103.0	0	0	0	0	0	0	0	0	0.0	0	0	28	3	0	0	0	31	31.0	0	0	58	5	0	0	0	63	63.0
Hourly Total	**0**	**1**	**370**	**36**	**3**	**0**	**0**	**410**	**410.9**	**0**	**0**	**365**	**40**	**3**	**5**	**1**	**414**	**423.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**105**	**19**	**1**	**2**	**0**	**127**	**130.1**	**0**	**0**	**272**	**46**	**4**	**4**	**1**	**327**	**335.2**
18:00 - 18:15	0	1	75	11	1	0	1	89	89.9	0	0	48	6	2	2	0	58	61.6	0	0	0	0	0	0	0	0	0.0	0	0	24	2	1	1	0	28	29.8	0	0	47	3	3	2	0	55	59.1
18:15 - 18:30	0	0	79	6	1	0	0	86	86.5	0	0	41	5	2	3	0	51	55.9	0	0	0	0	0	0	0	0	0.0	0	0	17	2	0	2	0	21	23.6	0	0	32	2	0	2	0	36	38.6
18:30 - 18:45	0	0	48	5	0	0	0	53	53.0	0	0	51	4	0	0	0	55	55.0	0	0	0	0	0	0	0	0	0.0	0	1	21	4	0	0	0	26	25.4	0	0	34	4	0	0	0	38	38.0
18:45 - 19:00	0	0	62	3	1	0	1	67	68.5	0	0	35	4	0	3	0	42	45.9	0	0	0	0	0	0	0	0	0.0	0	0	17	3	0	0	0	20	20.0	0	0	31	4	0	0	0	35	35.0
Hourly Total	**0**	**1**	**264**	**25**	**3**	**0**	**2**	**295**	**297.9**	**0**	**0**	**175**	**19**	**4**	**8**	**0**	**206**	**218.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**79**	**11**	**1**	**3**	**0**	**95**	**98.8**	**0**	**0**	**144**	**13**	**3**	**4**	**0**	**164**	**170.7**
TOTAL	**0**	**6**	**955**	**103**	**12**	**0**	**2**	**1078**	**1082.4**	**0**	**1**	**853**	**114**	**19**	**16**	**2**	**1005**	**1036.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**283**	**57**	**6**	**8**	**0**	**356**	**368.2**	**0**	**4**	**698**	**123**	**18**	**8**	**1**	**852**	**870.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: Bostocks Lane East

	To M1 J25 Slip Road (S)									To A52 (W)									To Bostocks Lane (W)									To M1 J25 Slip Road (N)									To A52 (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	43	9	0	2	0	54	56.6	0	0	62	9	2	0	0	73	74.0	0	0	9	2	0	0	0	11	11.0	0	0	38	21	2	0	0	61	62.0	0	0	21	3	0	0	0	24	24.0
07:15 - 07:30	0	0	52	8	3	0	0	63	64.5	0	1	38	8	1	0	0	48	47.9	0	0	8	3	0	0	0	11	11.0	0	0	46	15	1	0	0	62	62.5	0	1	35	1	0	0	0	37	36.4
07:30 - 07:45	0	1	34	8	2	2	0	47	50.0	0	0	49	6	1	0	0	56	56.5	0	0	9	2	0	0	0	11	11.0	0	0	37	7	1	0	0	45	45.5	0	0	35	5	0	0	0	40	40.0
07:45 - 08:00	0	0	54	8	0	1	0	63	64.3	0	1	50	6	1	0	0	58	57.9	0	0	11	2	1	0	0	14	14.5	0	0	41	11	1	0	0	53	53.5	0	0	29	2	1	0	0	32	32.5
Hourly Total	**0**	**1**	**183**	**33**	**5**	**5**	**0**	**227**	**235.4**	**0**	**2**	**199**	**29**	**5**	**0**	**0**	**235**	**236.3**	**0**	**0**	**37**	**9**	**1**	**0**	**0**	**47**	**47.5**	**0**	**0**	**162**	**54**	**5**	**0**	**0**	**221**	**223.5**	**0**	**1**	**120**	**11**	**1**	**0**	**0**	**133**	**132.9**
08:00 - 08:15	0	1	57	7	2	3	0	70	74.3	0	0	45	6	1	0	0	52	52.5	0	0	9	4	1	0	0	14	14.5	0	0	43	10	7	1	0	61	65.8	0	0	25	6	2	1	0	34	36.3
08:15 - 08:30	0	0	39	6	1	1	0	47	48.8	0	0	47	7	0	0	0	54	54.0	0	0	14	2	0	0	0	16	16.0	0	0	33	6	0	0	0	39	39.0	0	0	54	3	0	0	0	57	57.0
08:30 - 08:45	0	0	27	8	3	3	0	41	46.4	0	0	42	7	1	0	0	50	50.5	0	0	12	2	0	0	0	14	14.0	0	0	37	4	1	0	0	42	42.5	0	0	40	4	1	0	0	45	45.5
08:45 - 09:00	0	0	39	6	0	0	0	45	45.0	0	0	53	9	1	1	0	64	65.8	0	0	14	2	1	1	0	18	19.8	0	0	24	3	5	1	3	36	42.8	0	0	51	4	1	1	0	57	58.8
Hourly Total	**0**	**1**	**162**	**27**	**6**	**7**	**0**	**203**	**214.5**	**0**	**0**	**187**	**29**	**3**	**1**	**0**	**220**	**222.8**	**0**	**0**	**49**	**10**	**2**	**1**	**0**	**62**	**64.3**	**0**	**0**	**137**	**23**	**13**	**2**	**3**	**178**	**190.1**	**0**	**0**	**170**	**17**	**4**	**2**	**0**	**193**	**197.6**
09:00 - 09:15	0	0	33	5	2	0	0	40	41.0	0	0	41	7	1	0	0	49	49.5	0	0	14	4	1	0	0	19	19.5	0	0	36	14	4	1	1	56	60.3	0	0	51	3	2	0	0	56	57.0
09:15 - 09:30	0	0	19	4	6	2	0	31	36.6	0	0	43	6	1	0	0	50	50.5	0	0	16	4	0	1	0	21	22.3	0	0	42	13	2	1	3	61	66.3	0	0	40	5	1	0	0	46	46.5
09:30 - 09:45	0	0	16	5	1	3	0	25	29.4	0	0	36	6	2	0	0	44	45.0	0	0	13	3	1	0	0	17	17.5	0	0	27	7	2	0	3	39	43.0	0	0	37	3	1	0	0	41	41.5
09:45 - 10:00	0	0	16	3	0	1	0	20	21.3	0	0	32	9	2	0	0	43	44.0	0	0	16	3	1	0	0	20	20.5	0	0	26	13	2	0	0	41	42.0	0	1	45	5	2	0	0	53	53.4
Hourly Total	**0**	**0**	**84**	**17**	**9**	**6**	**0**	**116**	**128.3**	**0**	**0**	**152**	**28**	**6**	**0**	**0**	**186**	**189.0**	**0**	**0**	**59**	**14**	**3**	**1**	**0**	**77**	**79.8**	**0**	**0**	**131**	**47**	**10**	**2**	**7**	**197**	**211.6**	**0**	**1**	**173**	**16**	**6**	**0**	**0**	**196**	**198.4**
TOTAL	**0**	**2**	**429**	**77**	**20**	**18**	**0**	**546**	**578.2**	**0**	**2**	**538**	**86**	**14**	**1**	**0**	**641**	**648.1**	**0**	**0**	**145**	**33**	**6**	**2**	**0**	**186**	**191.6**	**0**	**0**	**430**	**124**	**28**	**4**	**10**	**596**	**625.2**	**0**	**2**	**463**	**44**	**11**	**2**	**0**	**522**	**528.9**
16:00 - 16:15	0	0	12	8	0	0	0	20	20.0	0	0	44	3	0	0	0	47	47.0	0	0	14	2	1	0	0	17	17.5	0	1	24	7	2	0	0	34	34.4	0	1	22	2	0	0	0	25	24.4
16:15 - 16:30	0	0	10	2	0	1	0	13	14.3	0	0	32	3	0	0	0	35	35.0	0	1	9	2	1	0	0	13	12.9	0	0	32	6	0	0	0	38	38.0	0	0	13	2	1	0	0	16	16.5
16:30 - 16:45	0	0	32	5	0	4	0	41	46.2	0	0	44	3	0	0	0	47	47.0	0	0	19	5	0	0	0	24	24.0	0	2	64	7	2	0	0	75	74.8	0	0	40	4	1	0	0	45	45.5
16:45 - 17:00	0	0	23	1	0	1	0	25	26.3	0	0	40	6	0	0	0	46	46.0	0	0	18	4	0	0	0	22	22.0	0	1	58	11	2	0	0	72	72.4	0	0	39	3	0	0	0	42	42.0
Hourly Total	**0**	**0**	**77**	**16**	**0**	**6**	**0**	**99**	**106.8**	**0**	**0**	**160**	**15**	**0**	**0**	**0**	**175**	**175.0**	**0**	**1**	**60**	**13**	**2**	**0**	**0**	**76**	**76.4**	**0**	**4**	**178**	**31**	**6**	**0**	**0**	**219**	**219.6**	**0**	**1**	**114**	**11**	**2**	**0**	**0**	**128**	**128.4**
17:00 - 17:15	0	0	48	6	0	1	0	55	56.3	0	0	49	3	0	0	0	52	52.0	0	0	18	3	0	0	0	21	21.0	0	0	57	8	1	0	0	66	66.5	0	0	38	3	1	0	0	42	42.5
17:15 - 17:30	0	0	39	7	1	0	0	47	47.5	0	0	46	2	0	0	0	48	48.0	0	0	19	3	0	0	0	22	22.0	0	0	70	5	0	0	0	75	75.0	0	0	45	7	0	0	0	52	52.0
17:30 - 17:45	0	0	29	4	0	1	0	34	35.3	0	2	49	5	0	0	0	56	54.8	0	0	29	5	1	0	0	35	35.5	0	0	65	12	1	0	0	78	78.5	0	1	53	5	0	0	0	59	58.4
17:45 - 18:00	0	0	24	2	0	0	1	27	28.0	0	0	48	6	0	0	1	55	56.0	0	0	22	2	0	0	0	24	24.0	0	0	44	3	0	0	1	48	49.0	0	0	39	2	0	0	2	43	45.0
Hourly Total	**0**	**0**	**140**	**19**	**1**	**2**	**1**	**163**	**167.1**	**0**	**2**	**192**	**16**	**0**	**0**	**1**	**211**	**210.8**	**0**	**0**	**88**	**13**	**1**	**0**	**0**	**102**	**102.5**	**0**	**0**	**236**	**28**	**2**	**0**	**1**	**267**	**269.0**	**0**	**1**	**175**	**17**	**1**	**0**	**2**	**196**	**197.9**
18:00 - 18:15	0	0	20	3	0	2	0	25	27.6	0	0	34	3	0	0	0	37	37.0	0	0	19	3	1	0	0	23	23.5	0	0	35	10	1	0	0	46	46.5	0	0	34	3	0	0	0	37	37.0
18:15 - 18:30	0	0	15	3	0	0	0	18	18.0	0	0	39	4	0	0	0	43	43.0	0	1	15	2	0	0	0	18	17.4	0	0	29	2	0	0	0	31	31.0	0	0	31	2	0	0	0	33	33.0
18:30 - 18:45	0	0	19	1	2	0	0	22	23.0	0	0	33	6	0	0	1	40	41.0	0	1	14	3	0	0	0	18	17.4	0	0	19	3	0	0	0	22	22.0	0	1	44	4	0	0	0	49	48.4
18:45 - 19:00	0	0	13	3	0	2	0	18	20.6	0	0	30	4	0	0	0	34	34.0	0	0	15	2	0	0	0	17	17.0	0	0	27	2	0	0	0	29	29.0	0	0	35	1	0	0	0	36	36.0
Hourly Total	**0**	**0**	**67**	**10**	**2**	**4**	**0**	**83**	**89.2**	**0**	**0**	**136**	**17**	**0**	**0**	**1**	**154**	**155.0**	**0**	**2**	**63**	**10**	**1**	**0**	**0**	**76**	**75.3**	**0**	**0**	**110**	**17**	**1**	**0**	**0**	**128**	**128.5**	**0**	**1**	**144**	**10**	**0**	**0**	**0**	**155**	**154.4**
TOTAL	**0**	**0**	**284**	**45**	**3**	**12**	**1**	**345**	**363.1**	**0**	**2**	**488**	**48**	**0**	**0**	**2**	**540**	**540.8**	**0**	**3**	**211**	**36**	**4**	**0**	**0**	**254**	**254.2**	**0**	**4**	**524**	**76**	**9**	**0**	**1**	**614**	**617.1**	**0**	**3**	**433**	**38**	**3**	**0**	**2**	**479**	**480.7**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: M1 J25 Slip Road South

	To A52 (W)									To Bostocks Lane (W)										To M1 J25 Slip Road (N)										To A52 (E)										To Bostocks Lane (E)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	14	4	4	0	58	65.2	0	0	15	6	0	2	0	23	25.6	0	0	0	0	0	0	0	0	0.0	0	0	51	10	2	4	0	67	73.2	0	0	11	5	3	1	0	20	22.8
07:15 - 07:30	0	0	48	15	0	4	0	67	72.2	0	0	15	13	2	4	0	34	40.2	0	0	0	0	0	0	0	0	0.0	0	0	62	12	3	1	0	78	80.8	0	0	27	4	2	1	0	34	36.3
07:30 - 07:45	0	0	50	16	2	5	0	73	80.5	0	0	18	11	5	4	0	38	45.7	0	0	0	0	0	0	0	0	0.0	0	0	64	18	5	6	0	93	103.3	0	0	41	7	4	2	0	54	58.6
07:45 - 08:00	0	1	50	18	2	2	0	73	76.0	0	0	31	10	2	7	0	50	60.1	0	0	0	0	0	0	0	0	0.0	0	0	83	17	7	2	1	110	117.1	0	0	40	4	3	2	0	49	53.1
Hourly Total	**0**	**1**	**184**	**63**	**8**	**15**	**0**	**271**	**293.9**	**0**	**0**	**79**	**40**	**9**	**17**	**0**	**145**	**171.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**260**	**57**	**17**	**13**	**1**	**348**	**374.4**	**0**	**0**	**119**	**20**	**12**	**6**	**0**	**157**	**170.8**
08:00 - 08:15	0	0	62	11	6	2	0	81	86.6	0	0	32	10	4	1	0	47	50.3	0	0	0	0	0	0	0	0	0.0	0	0	80	24	3	8	0	115	126.9	0	0	33	6	2	4	0	45	51.2
08:15 - 08:30	0	0	56	5	0	3	0	64	67.9	0	0	25	11	2	1	0	39	41.3	0	0	0	0	0	0	0	0	0.0	0	0	75	18	2	5	0	100	107.5	0	0	39	10	2	1	0	52	54.3
08:30 - 08:45	0	0	36	7	3	2	0	48	52.1	0	0	17	7	2	1	0	27	29.3	0	0	0	0	0	0	0	0	0.0	0	0	65	14	5	2	0	86	91.1	0	0	31	4	4	2	0	41	45.6
08:45 - 09:00	0	0	30	3	2	4	0	39	45.2	0	0	22	6	3	2	0	33	37.1	0	0	0	0	0	0	0	0	0.0	0	0	79	6	6	8	0	99	112.4	0	0	16	7	3	0	0	26	27.5
Hourly Total	**0**	**0**	**184**	**26**	**11**	**11**	**0**	**232**	**251.8**	**0**	**0**	**96**	**34**	**11**	**5**	**0**	**146**	**158.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**299**	**62**	**16**	**23**	**0**	**400**	**437.9**	**0**	**0**	**119**	**27**	**11**	**7**	**0**	**164**	**178.6**
09:00 - 09:15	0	0	34	3	2	1	0	40	42.3	0	0	13	13	2	3	0	31	35.9	0	0	0	0	0	0	0	0	0.0	0	0	51	11	5	1	0	68	71.8	0	0	23	4	1	3	0	31	35.4
09:15 - 09:30	0	0	27	4	1	3	0	35	39.4	0	0	16	8	2	7	0	33	43.1	0	0	0	0	0	0	0	0	0.0	0	0	47	15	5	3	0	70	76.4	0	0	16	4	2	0	0	22	23.0
09:30 - 09:45	0	0	27	7	2	4	0	40	46.2	0	0	18	12	7	3	0	40	47.4	0	0	0	0	0	0	0	0	0.0	0	0	51	9	3	8	0	71	82.9	0	0	22	9	3	2	0	36	40.1
09:45 - 10:00	0	0	19	4	3	1	0	27	29.8	0	0	17	10	1	4	0	32	37.7	0	0	0	0	0	0	0	0	0.0	0	0	45	13	4	6	0	68	77.8	0	0	15	4	2	1	0	22	24.3
Hourly Total	**0**	**0**	**107**	**18**	**8**	**9**	**0**	**142**	**157.7**	**0**	**0**	**64**	**43**	**12**	**17**	**0**	**136**	**164.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**194**	**48**	**17**	**18**	**0**	**277**	**308.9**	**0**	**0**	**76**	**21**	**8**	**6**	**0**	**111**	**122.8**
TOTAL	**0**	**1**	**475**	**107**	**27**	**35**	**0**	**645**	**703.4**	**0**	**0**	**239**	**117**	**32**	**39**	**0**	**427**	**493.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**753**	**167**	**50**	**54**	**1**	**1025**	**1121.2**	**0**	**0**	**314**	**68**	**31**	**19**	**0**	**432**	**472.2**
16:00 - 16:15	0	0	32	11	3	2	0	48	52.1	0	0	47	18	1	5	0	71	78.0	0	0	0	0	0	0	0	0	0.0	0	0	88	18	4	0	1	111	114.0	0	0	33	9	0	0	0	42	42.0
16:15 - 16:30	0	0	34	4	0	1	0	39	40.3	0	2	56	20	4	7	0	89	98.9	0	0	0	0	0	0	0	0	0.0	0	0	79	21	3	4	0	107	113.7	0	0	38	13	0	0	0	51	51.0
16:30 - 16:45	0	0	27	9	1	2	0	39	42.1	0	0	45	16	3	2	0	66	70.1	0	0	0	0	0	0	0	0	0.0	0	0	98	17	6	2	0	123	128.6	0	0	42	7	0	0	0	49	49.0
16:45 - 17:00	0	0	39	7	0	3	0	49	52.9	0	0	60	15	2	2	0	79	82.6	0	0	0	0	0	0	0	0	0.0	0	0	125	18	2	2	0	147	150.6	0	0	48	5	2	0	0	55	56.0
Hourly Total	**0**	**0**	**132**	**31**	**4**	**8**	**0**	**175**	**187.4**	**0**	**2**	**208**	**69**	**10**	**16**	**0**	**305**	**329.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**390**	**74**	**15**	**8**	**1**	**488**	**506.9**	**0**	**0**	**161**	**34**	**2**	**0**	**0**	**197**	**198.0**
17:00 - 17:15	0	0	34	2	1	0	0	37	37.5	0	1	51	15	3	2	0	72	75.5	0	0	0	0	0	0	0	0	0.0	0	1	110	15	7	2	1	136	142.5	0	1	52	8	1	0	1	63	63.9
17:15 - 17:30	0	0	30	1	0	1	0	32	33.3	0	0	37	5	1	1	0	44	45.8	0	0	0	0	0	0	0	0	0.0	0	1	87	11	1	0	0	100	99.9	0	0	36	4	0	0	0	40	40.0
17:30 - 17:45	0	0	24	6	1	0	0	31	31.5	0	0	53	10	2	4	0	69	75.2	0	0	0	0	0	0	0	0	0.0	0	0	104	13	2	0	0	119	120.0	0	0	47	5	1	0	0	53	53.5
17:45 - 18:00	0	0	26	1	1	3	0	31	35.4	0	0	73	9	2	2	0	86	89.6	0	0	0	0	0	0	0	0	0.0	0	0	130	11	0	2	0	143	145.6	0	0	50	6	1	0	0	57	57.5
Hourly Total	**0**	**0**	**114**	**10**	**3**	**4**	**0**	**131**	**137.7**	**0**	**1**	**214**	**39**	**8**	**9**	**0**	**271**	**286.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**431**	**50**	**10**	**4**	**1**	**498**	**508.0**	**0**	**1**	**185**	**23**	**3**	**0**	**1**	**213**	**214.9**
18:00 - 18:15	0	0	34	3	1	2	0	40	43.1	0	0	64	11	2	5	0	82	89.5	0	0	0	0	0	0	0	0	0.0	0	0	121	12	4	5	0	142	150.5	0	0	50	3	1	1	0	55	56.8
18:15 - 18:30	0	0	31	4	1	0	0	36	36.5	0	0	33	9	5	2	0	49	54.1	0	0	0	0	0	0	0	0	0.0	0	0	80	6	0	3	0	89	92.9	0	0	35	6	0	1	0	42	43.3
18:30 - 18:45	0	0	20	4	0	1	0	25	26.3	0	0	21	3	0	3	0	27	30.9	0	0	0	0	0	0	0	0	0.0	0	0	78	5	1	2	0	86	89.1	0	0	21	3	0	0	0	24	24.0
18:45 - 19:00	0	0	27	5	0	1	1	34	36.3	0	0	26	5	2	0	0	33	34.0	0	0	0	0	0	0	0	0	0.0	0	0	70	2	0	0	0	72	72.0	0	0	30	5	2	0	0	37	38.0
Hourly Total	**0**	**0**	**112**	**16**	**2**	**4**	**1**	**135**	**142.2**	**0**	**0**	**144**	**28**	**9**	**10**	**0**	**191**	**208.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**349**	**25**	**5**	**10**	**0**	**389**	**404.5**	**0**	**0**	**136**	**17**	**3**	**2**	**0**	**158**	**162.1**
TOTAL	**0**	**0**	**358**	**57**	**9**	**16**	**1**	**441**	**467.3**	**0**	**3**	**566**	**136**	**27**	**35**	**0**	**767**	**824.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**1170**	**149**	**30**	**22**	**2**	**1375**	**1419.4**	**0**	**1**	**482**	**74**	**8**	**2**	**1**	**568**	**575.0**

PCU Factors:
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: A52 West

	To Bostocks Lane (W)									To M1 J25 Slip Road (N)										To A52 (E)										To Bostocks Lane (E)										To M1 J25 Slip Road (S)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	9	4	4	1	0	18	21.3	0	0	61	16	2	3	0	82	86.9	0	0	0	0	0	0	0	0	0.0	0	0	9	2	2	1	0	14	16.3	0	0	43	15	6	2	0	66	71.6
07:15 - 07:30	0	0	21	4	1	1	0	27	28.8	0	0	48	30	2	3	1	84	89.9	0	0	0	0	0	0	0	0	0.0	0	0	19	2	1	1	1	24	26.8	0	0	59	8	3	1	0	71	73.8
07:30 - 07:45	0	0	13	3	4	2	0	22	26.6	0	0	53	12	6	2	0	73	78.6	0	0	0	0	0	0	0	0	0.0	0	0	33	3	1	1	0	38	39.8	0	0	81	12	4	2	0	99	103.6
07:45 - 08:00	0	0	29	9	1	0	0	39	39.5	0	1	79	28	5	5	0	118	126.4	0	0	0	0	0	0	0	0	0.0	0	1	26	2	1	1	0	31	32.2	0	0	57	6	6	1	0	70	74.3
Hourly Total	**0**	**0**	**72**	**20**	**10**	**4**	**0**	**106**	**116.2**	**0**	**1**	**241**	**86**	**15**	**13**	**1**	**357**	**381.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**87**	**9**	**5**	**4**	**1**	**107**	**115.1**	**0**	**0**	**240**	**41**	**19**	**6**	**0**	**306**	**323.3**
08:00 - 08:15	0	0	29	6	4	0	0	39	41.0	0	0	67	18	6	1	0	92	96.3	0	0	0	0	0	0	0	0	0.0	0	0	19	4	1	1	0	25	26.8	0	0	60	15	3	4	0	82	88.7
08:15 - 08:30	0	0	22	7	3	0	1	33	35.5	0	0	46	11	2	2	0	61	64.6	0	0	0	0	0	0	0	0	0.0	0	0	36	4	1	0	0	41	41.5	0	1	73	20	4	2	0	100	104.0
08:30 - 08:45	0	0	12	1	0	0	0	13	13.0	0	0	46	17	8	2	0	73	79.6	0	0	0	0	0	0	0	0	0.0	0	1	27	6	2	1	0	37	38.7	0	0	64	13	7	2	0	86	92.1
08:45 - 09:00	0	0	19	5	1	2	0	27	30.1	0	0	50	11	4	3	0	68	73.9	0	0	0	0	0	0	0	0	0.0	0	0	17	4	0	0	0	21	21.0	0	0	37	15	3	2	0	57	61.1
Hourly Total	**0**	**0**	**82**	**19**	**8**	**2**	**1**	**112**	**119.6**	**0**	**0**	**209**	**57**	**20**	**8**	**0**	**294**	**314.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**99**	**18**	**4**	**2**	**0**	**124**	**128.0**	**0**	**1**	**234**	**63**	**17**	**10**	**0**	**325**	**345.9**
09:00 - 09:15	0	0	11	4	0	0	0	15	15.0	0	0	35	15	3	7	0	60	70.6	0	0	0	0	0	0	0	0	0.0	0	0	22	3	1	1	0	27	28.8	0	0	43	11	2	4	0	60	66.2
09:15 - 09:30	0	0	11	6	3	2	0	22	26.1	0	0	35	16	3	5	0	59	67.0	0	0	0	0	0	0	0	0	0.0	0	0	14	4	0	0	0	18	18.0	0	0	44	9	4	2	0	59	63.6
09:30 - 09:45	0	1	13	3	4	1	0	22	24.7	0	0	30	9	5	4	0	48	55.7	0	0	0	0	0	0	0	0	0.0	0	0	17	4	0	1	0	22	23.3	0	0	44	7	4	2	0	57	61.6
09:45 - 10:00	0	0	9	6	0	2	0	17	19.6	0	0	24	10	2	0	0	36	37.0	0	0	0	0	0	0	0	0	0.0	0	0	14	3	2	0	0	19	20.0	0	0	24	8	4	0	0	36	38.0
Hourly Total	**0**	**1**	**44**	**19**	**7**	**5**	**0**	**76**	**85.4**	**0**	**0**	**124**	**50**	**13**	**16**	**0**	**203**	**230.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**67**	**14**	**3**	**2**	**0**	**86**	**90.1**	**0**	**0**	**155**	**35**	**14**	**8**	**0**	**212**	**229.4**
TOTAL	**0**	**1**	**198**	**58**	**25**	**11**	**1**	**294**	**321.2**	**0**	**1**	**574**	**193**	**48**	**37**	**1**	**854**	**926.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**253**	**41**	**12**	**8**	**1**	**317**	**333.2**	**0**	**1**	**629**	**139**	**50**	**24**	**0**	**843**	**898.6**
16:00 - 16:15	0	0	18	7	1	1	0	27	28.8	0	0	102	42	2	2	0	148	151.6	0	0	0	0	0	0	0	0	0.0	0	0	30	5	0	0	0	35	35.0	0	0	41	9	0	2	0	52	54.6
16:15 - 16:30	0	1	15	0	2	0	0	18	18.4	0	0	116	26	3	2	0	147	151.1	0	0	0	0	0	0	0	0	0.0	0	0	25	4	0	0	0	29	29.0	0	0	53	10	3	4	0	70	76.7
16:30 - 16:45	0	0	17	4	1	1	0	23	24.8	0	0	103	21	2	3	0	129	133.9	0	0	0	0	0	0	0	0	0.0	0	0	27	7	0	0	0	34	34.0	0	0	46	9	2	4	0	61	67.2
16:45 - 17:00	0	0	30	4	1	1	0	36	37.8	0	1	113	13	5	2	0	134	138.5	0	0	0	0	0	0	0	0	0.0	0	1	25	3	0	0	0	29	28.4	0	0	47	5	1	3	0	56	60.4
Hourly Total	**0**	**1**	**80**	**15**	**5**	**3**	**0**	**104**	**109.8**	**0**	**1**	**434**	**102**	**12**	**9**	**0**	**558**	**575.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**107**	**19**	**0**	**0**	**0**	**127**	**126.4**	**0**	**0**	**187**	**33**	**6**	**13**	**0**	**239**	**258.9**
17:00 - 17:15	0	0	26	3	1	0	0	30	30.5	0	0	98	22	3	2	0	125	129.1	0	0	0	0	0	0	0	0	0.0	0	1	33	5	1	0	0	40	39.9	0	0	59	8	1	2	0	70	73.1
17:15 - 17:30	0	0	20	2	0	0	0	22	22.0	0	0	114	12	1	1	0	128	129.8	0	0	0	0	0	0	0	0	0.0	0	0	31	4	0	0	0	35	35.0	0	0	73	8	1	1	0	83	84.8
17:30 - 17:45	0	0	21	4	2	1	0	28	30.3	0	0	113	13	1	0	0	127	127.5	0	0	0	0	0	0	0	0	0.0	0	0	35	4	0	0	0	39	39.0	0	0	64	5	1	0	0	70	70.5
17:45 - 18:00	0	0	32	2	2	0	0	36	37.0	0	0	96	15	2	3	0	116	120.9	0	0	0	0	0	0	0	0	0.0	0	0	30	3	1	0	0	34	34.5	0	0	58	6	1	3	2	70	76.4
Hourly Total	**0**	**0**	**99**	**11**	**5**	**1**	**0**	**116**	**119.8**	**0**	**0**	**421**	**62**	**7**	**6**	**0**	**496**	**507.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**129**	**16**	**2**	**0**	**0**	**148**	**148.4**	**0**	**0**	**254**	**27**	**4**	**6**	**2**	**293**	**304.8**
18:00 - 18:15	0	0	17	0	1	0	0	18	18.5	0	0	112	18	2	3	0	135	139.9	0	0	0	0	0	0	0	0	0.0	0	0	38	2	1	1	0	42	43.8	0	0	49	4	1	1	0	55	56.8
18:15 - 18:30	0	0	19	0	0	0	0	19	19.0	0	0	63	7	0	0	0	70	70.0	0	0	0	0	0	0	0	0	0.0	0	0	35	2	0	0	0	37	37.0	0	0	32	4	0	0	0	36	36.0
18:30 - 18:45	0	0	21	5	0	0	0	26	26.0	0	0	58	3	4	2	0	67	71.6	0	0	0	0	0	0	0	0	0.0	0	0	38	3	0	0	0	41	41.0	0	0	29	4	2	0	0	35	36.0
18:45 - 19:00	0	0	12	2	0	0	0	14	14.0	0	0	54	10	0	0	0	64	64.0	0	0	0	0	0	0	0	0	0.0	0	0	27	3	0	0	0	30	30.0	0	0	26	3	0	0	0	29	29.0
Hourly Total	**0**	**0**	**69**	**7**	**1**	**0**	**0**	**77**	**77.5**	**0**	**0**	**287**	**38**	**6**	**5**	**0**	**336**	**345.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**138**	**10**	**1**	**1**	**0**	**150**	**151.8**	**0**	**0**	**136**	**15**	**3**	**1**	**0**	**155**	**157.8**
TOTAL	**0**	**1**	**248**	**33**	**11**	**4**	**0**	**297**	**307.1**	**0**	**1**	**1142**	**202**	**25**	**20**	**0**	**1390**	**1427.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**2**	**374**	**45**	**3**	**1**	**0**	**425**	**426.6**	**0**	**0**	**577**	**75**	**13**	**20**	**2**	**687**	**721.5**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Tuesday 26th September 2023
Junction: 1
Approach: Bostocks Lane West

	To M1 J25 Slip Road (N)									To A52 (E)									To Bostocks Lane (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	26	9	1	0	0	36	36.5	0	0	31	3	2	1	0	37	39.3	0	0	6	3	2	0	0	11	12.0
07:15 - 07:30	0	0	34	12	1	0	0	47	47.5	0	0	24	5	1	2	0	32	35.1	0	0	12	3	1	1	0	17	18.8
07:30 - 07:45	0	0	35	8	3	1	0	47	49.8	0	0	23	6	1	1	0	31	32.8	0	0	14	2	1	0	0	17	17.5
07:45 - 08:00	0	0	48	9	2	3	0	62	66.9	0	0	29	4	3	1	0	37	39.8	0	0	15	3	2	0	0	20	21.0
Hourly Total	**0**	**0**	**143**	**38**	**7**	**4**	**0**	**192**	**200.7**	**0**	**0**	**107**	**18**	**7**	**5**	**0**	**137**	**147.0**	**0**	**0**	**47**	**11**	**6**	**1**	**0**	**65**	**69.3**
08:00 - 08:15	0	0	35	7	2	1	0	45	47.3	0	0	36	6	2	0	0	44	45.0	0	0	15	3	1	0	0	19	19.5
08:15 - 08:30	0	0	37	6	3	0	0	46	47.5	0	0	30	5	1	1	2	39	42.8	0	0	17	4	1	0	0	22	22.5
08:30 - 08:45	0	0	34	5	5	1	0	45	48.8	0	0	31	5	2	1	0	39	41.3	0	0	16	4	2	1	0	23	25.3
08:45 - 09:00	0	0	4	2	2	0	0	8	9.0	0	0	17	1	1	1	0	20	21.8	0	0	19	1	0	0	0	20	20.0
Hourly Total	**0**	**0**	**110**	**20**	**12**	**2**	**0**	**144**	**152.6**	**0**	**0**	**114**	**17**	**6**	**3**	**2**	**142**	**150.9**	**0**	**0**	**67**	**12**	**4**	**1**	**0**	**84**	**87.3**
09:00 - 09:15	0	0	24	4	2	2	0	32	35.6	0	0	21	3	3	1	0	28	30.8	0	0	10	2	1	1	0	14	15.8
09:15 - 09:30	0	0	21	7	1	0	0	29	29.5	0	0	11	3	1	0	0	15	15.5	0	0	5	1	0	0	0	6	6.0
09:30 - 09:45	0	0	10	4	3	1	0	18	20.8	0	0	18	4	1	0	0	23	23.5	0	0	8	3	0	0	0	11	11.0
09:45 - 10:00	0	0	9	5	5	2	0	21	26.1	0	0	20	3	1	2	0	26	29.1	0	0	12	2	1	0	0	15	15.5
Hourly Total	**0**	**0**	**64**	**20**	**11**	**5**	**0**	**100**	**112.0**	**0**	**0**	**70**	**13**	**6**	**3**	**0**	**92**	**98.9**	**0**	**0**	**35**	**8**	**2**	**1**	**0**	**46**	**48.3**
TOTAL	**0**	**0**	**317**	**78**	**30**	**11**	**0**	**436**	**465.3**	**0**	**0**	**291**	**48**	**19**	**11**	**2**	**371**	**396.8**	**0**	**0**	**149**	**31**	**12**	**3**	**0**	**195**	**204.9**
16:00 - 16:15	0	0	33	10	1	0	0	44	44.5	0	0	32	6	2	0	0	40	41.0	0	0	13	4	0	0	0	17	17.0
16:15 - 16:30	0	0	28	5	0	0	0	33	33.0	0	0	32	3	2	0	0	37	38.0	0	1	16	3	0	0	0	20	19.4
16:30 - 16:45	0	0	31	5	1	1	0	38	39.8	0	0	25	8	1	0	0	34	34.5	0	0	12	3	0	0	0	15	15.0
16:45 - 17:00	0	0	38	8	1	0	0	47	47.5	0	0	28	2	0	1	0	31	32.3	0	0	10	2	0	0	0	12	12.0
Hourly Total	**0**	**0**	**130**	**28**	**3**	**1**	**0**	**162**	**164.8**	**0**	**0**	**117**	**19**	**5**	**1**	**0**	**142**	**145.8**	**0**	**1**	**51**	**12**	**0**	**0**	**0**	**64**	**63.4**
17:00 - 17:15	0	0	56	12	1	1	0	70	71.8	0	0	24	5	0	0	0	29	29.0	0	0	11	2	0	0	1	14	15.0
17:15 - 17:30	0	0	42	8	0	1	0	51	52.3	0	0	25	7	0	0	0	32	32.0	0	0	10	2	0	0	0	12	12.0
17:30 - 17:45	0	0	26	3	2	0	0	31	32.0	0	0	28	3	0	0	0	31	31.0	0	0	14	2	0	0	0	16	16.0
17:45 - 18:00	0	0	24	4	0	1	0	29	30.3	0	0	21	2	0	0	0	23	23.0	0	0	8	2	0	0	0	10	10.0
Hourly Total	**0**	**0**	**148**	**27**	**3**	**3**	**0**	**181**	**186.4**	**0**	**0**	**98**	**17**	**0**	**0**	**0**	**115**	**115.0**	**0**	**0**	**43**	**8**	**0**	**0**	**1**	**52**	**53.0**
18:00 - 18:15	0	0	25	3	1	1	0	30	31.8	0	0	24	4	0	0	0	28	28.0	0	0	16	1	0	0	0	17	17.0
18:15 - 18:30	0	0	22	2	1	1	0	26	27.8	0	0	28	2	0	0	0	30	30.0	0	1	13	2	0	0	0	16	15.4
18:30 - 18:45	0	0	13	1	0	0	0	14	14.0	0	1	32	2	0	0	0	35	34.4	0	0	11	2	0	0	0	13	13.0
18:45 - 19:00	0	0	10	0	0	0	0	10	10.0	0	0	23	1	0	0	0	24	24.0	0	0	12	1	0	0	0	13	13.0
Hourly Total	**0**	**0**	**70**	**6**	**2**	**2**	**0**	**80**	**83.6**	**0**	**1**	**107**	**9**	**0**	**0**	**0**	**117**	**116.4**	**0**	**1**	**52**	**6**	**0**	**0**	**0**	**59**	**58.4**
TOTAL	**0**	**0**	**348**	**61**	**8**	**6**	**0**	**423**	**434.8**	**0**	**1**	**322**	**45**	**5**	**1**	**0**	**374**	**377.2**	**0**	**2**	**146**	**26**	**0**	**0**	**1**	**175**	**174.8**

	To M1 J25 Slip Road (S)									To A52 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	37	24	7	2	0	70	76.1	0	0	16	7	2	2	0	27	30.6
07:15 - 07:30	0	0	41	19	4	3	0	67	72.9	0	0	26	5	2	1	0	34	36.3
07:30 - 07:45	0	0	32	14	1	1	0	48	49.8	0	0	41	9	1	2	0	53	56.1
07:45 - 08:00	0	0	42	17	6	2	0	67	72.6	0	0	36	4	3	0	0	43	44.5
Hourly Total	**0**	**0**	**152**	**74**	**18**	**8**	**0**	**252**	**271.4**	**0**	**0**	**119**	**25**	**8**	**5**	**0**	**157**	**167.5**
08:00 - 08:15	0	1	61	11	6	0	0	79	81.4	0	0	29	6	1	0	1	37	38.5
08:15 - 08:30	0	0	32	12	6	7	0	57	69.1	0	0	43	7	2	0	0	52	53.0
08:30 - 08:45	0	0	38	9	8	2	0	57	63.6	0	0	27	8	2	1	1	39	42.3
08:45 - 09:00	0	0	27	8	2	3	0	40	44.9	0	0	22	3	1	1	0	27	28.8
Hourly Total	**0**	**1**	**158**	**40**	**22**	**12**	**0**	**233**	**259.0**	**0**	**0**	**121**	**24**	**6**	**2**	**2**	**155**	**162.6**
09:00 - 09:15	0	0	19	12	3	4	0	38	44.7	0	0	19	4	2	2	0	27	30.6
09:15 - 09:30	0	0	14	5	1	0	0	20	20.6	0	0	17	3	1	0	0	21	21.5
09:30 - 09:45	0	0	15	5	4	1	0	25	28.3	0	0	22	5	2	1	0	30	32.3
09:45 - 10:00	0	0	16	11	1	4	0	32	37.7	0	0	11	3	1	1	0	16	17.8
Hourly Total	**0**	**0**	**64**	**33**	**9**	**9**	**0**	**115**	**131.2**	**0**	**0**	**69**	**15**	**6**	**4**	**0**	**94**	**102.2**
TOTAL	**0**	**1**	**374**	**147**	**49**	**29**	**0**	**600**	**661.6**	**0**	**0**	**309**	**64**	**20**	**11**	**2**	**406**	**432.3**
16:00 - 16:15	0	0	19	8	3	0	0	30	31.5	0	0	20	4	0	0	0	24	24.0
16:15 - 16:30	0	0	28	10	4	0	0	42	44.0	0	0	16	4	0	0	0	20	20.0
16:30 - 16:45	0	0	22	4	2	1	0	29	31.3	0	0	20	4	1	2	0	27	30.1
16:45 - 17:00	0	0	21	4	1	3	0	29	33.4	0	0	16	2	1	1	0	20	21.8
Hourly Total	**0**	**0**	**90**	**26**	**10**	**4**	**0**	**130**	**140.2**	**0**	**0**	**72**	**14**	**2**	**3**	**0**	**91**	**95.9**
17:00 - 17:15	0	0	24	5	0	2	0	31	33.6	0	0	19	3	0	0	0	22	22.0
17:15 - 17:30	0	0	25	4	0	1	0	30	31.3	0	0	13	2	0	1	0	16	17.3
17:30 - 17:45	0	0	23	5	0	0	0	28	28.0	0	0	15	2	0	0	0	17	17.0
17:45 - 18:00	0	0	17	1	2	0	0	20	21.0	0	0	14	2	0	0	0	16	16.0
Hourly Total	**0**	**0**	**89**	**15**	**2**	**3**	**0**	**109**	**113.9**	**0**	**0**	**61**	**9**	**0**	**1**	**0**	**71**	**72.3**
18:00 - 18:15	0	0	19	5	0	0	0	24	24.0	0	0	19	1	0	0	0	20	20.0
18:15 - 18:30	0	0	16	2	0	0	0	18	18.0	0	0	14	2	0	0	0	16	16.0
18:30 - 18:45	0	0	9	2	0	0	0	11	11.0	0	0	12	3	0	0	0	15	15.0
18:45 - 19:00	0	0	13	1	0	0	0	14	14.0	0	0	14	2	0	0	0	16	16.0
Hourly Total	**0**	**0**	**57**	**10**	**0**	**0**	**0**	**67**	**67.0**	**0**	**0**	**59**	**8**	**0**	**0**	**0**	**67**	**67.0**
TOTAL	**0**	**0**	**236**	**51**	**12**	**7**	**0**	**306**	**321.1**	**0**	**0**	**192**	**31**	**2**	**4**	**0**	**229**	**235.2**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 14 – Station Road/Broad Rushes Roundabout Junction Turning Count Results

Road Data Services Ltd

East Midlands Airport
Wednesday 27th September 2023
Junction: 2
Approach: Station Road North

	Ahead to Station Road (S)									Right to Broad Rushes								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	1	50	23	3	1	2	80	84.2	0	0	44	13	6	4	0	67	75.2
07:15 - 07:30	0	0	85	19	4	1	3	112	118.3	0	1	67	7	4	11	0	90	105.7
07:30 - 07:45	0	2	102	24	6	0	1	135	137.8	0	0	78	11	2	4	0	95	101.2
07:45 - 08:00	1	2	120	13	9	3	4	152	162.4	0	0	98	11	5	7	0	121	132.6
Hourly Total	**1**	**5**	**357**	**79**	**22**	**5**	**10**	**479**	**502.7**	**0**	**1**	**287**	**42**	**17**	**26**	**0**	**373**	**414.7**
08:00 - 08:15	2	2	106	25	4	4	2	145	151.4	0	1	80	17	6	5	0	109	117.9
08:15 - 08:30	0	0	135	15	3	1	3	157	162.8	0	0	111	11	5	7	0	134	145.6
08:30 - 08:45	0	0	103	20	4	1	0	128	131.3	0	1	91	15	7	8	0	122	135.3
08:45 - 09:00	0	1	85	23	2	1	3	115	119.7	0	1	96	12	5	11	0	125	141.2
Hourly Total	**2**	**3**	**429**	**83**	**13**	**7**	**8**	**545**	**565.2**	**0**	**3**	**378**	**55**	**23**	**31**	**0**	**490**	**540.0**
09:00 - 09:15	0	3	74	20	3	2	2	104	108.3	0	2	47	12	6	9	0	76	89.5
09:15 - 09:30	0	1	76	19	2	1	3	102	106.7	0	0	28	10	4	8	0	50	62.4
09:30 - 09:45	0	0	67	19	6	4	0	96	104.2	0	0	35	6	5	12	0	58	76.1
09:45 - 10:00	0	1	73	12	4	0	3	93	97.4	0	2	39	5	6	10	0	62	76.8
Hourly Total	**0**	**5**	**290**	**70**	**15**	**7**	**8**	**395**	**416.6**	**0**	**4**	**149**	**33**	**21**	**39**	**0**	**246**	**304.8**
TOTAL	**3**	**13**	**1076**	**232**	**50**	**19**	**26**	**1419**	**1484.5**	**0**	**8**	**814**	**130**	**61**	**96**	**0**	**1109**	**1259.5**
16:00 - 16:15	0	0	95	12	5	1	2	115	120.8	0	0	36	15	5	5	0	61	70.0
16:15 - 16:30	0	0	97	12	4	1	1	115	119.3	0	0	46	7	2	7	0	62	72.1
16:30 - 16:45	0	1	91	11	5	1	2	111	116.2	0	3	50	16	0	9	0	78	87.9
16:45 - 17:00	0	2	104	13	1	2	3	125	129.9	0	0	60	7	2	8	0	77	88.4
Hourly Total	**0**	**3**	**387**	**48**	**15**	**5**	**8**	**466**	**486.2**	**0**	**3**	**192**	**45**	**9**	**29**	**0**	**278**	**318.4**
17:00 - 17:15	0	0	112	14	1	0	1	128	129.5	0	0	70	11	2	5	0	88	95.5
17:15 - 17:30	0	0	189	7	0	0	3	199	202.0	0	3	80	4	2	3	0	92	95.1
17:30 - 17:45	0	2	99	6	1	1	1	110	111.6	0	0	119	5	1	4	0	129	134.7
17:45 - 18:00	0	2	86	10	1	0	3	102	104.3	0	1	95	8	1	4	0	109	114.1
Hourly Total	**0**	**4**	**486**	**37**	**3**	**1**	**8**	**539**	**547.4**	**0**	**4**	**364**	**28**	**6**	**16**	**0**	**418**	**439.4**
18:00 - 18:15	0	4	80	7	0	0	1	92	90.6	0	1	85	3	3	2	0	94	97.5
18:15 - 18:30	0	1	74	9	3	0	3	90	93.9	0	0	57	9	1	4	0	71	76.7
18:30 - 18:45	0	0	103	6	1	0	1	111	112.5	0	0	49	4	0	11	0	64	78.3
18:45 - 19:00	0	0	68	6	1	1	1	77	79.8	0	0	32	4	0	2	0	38	40.6
Hourly Total	**0**	**5**	**325**	**28**	**5**	**1**	**6**	**370**	**376.8**	**0**	**1**	**223**	**20**	**4**	**19**	**0**	**267**	**293.1**
TOTAL	**0**	**12**	**1198**	**113**	**23**	**7**	**22**	**1375**	**1410.4**	**0**	**8**	**779**	**93**	**19**	**64**	**0**	**963**	**1050.9**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 27th September 2023
Junction: 2
Approach: Station Road South

	Left to Broad Rushes									Ahead to Station Road (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	1	0	0	0	3	3.0	0	0	40	10	2	3	0	55	59.9
07:15 - 07:30	0	0	2	1	0	0	0	3	3.0	0	0	33	13	4	0	2	52	56.0
07:30 - 07:45	0	0	4	0	0	0	0	4	4.0	0	0	73	14	3	0	2	92	95.5
07:45 - 08:00	0	0	2	2	0	0	0	4	4.0	0	0	53	15	4	0	1	73	76.0
Hourly Total	**0**	**0**	**10**	**4**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**199**	**52**	**13**	**3**	**5**	**272**	**287.4**
08:00 - 08:15	0	0	5	1	0	0	0	6	6.0	0	1	51	10	4	0	4	70	75.4
08:15 - 08:30	0	0	5	1	0	1	0	7	8.3	0	0	64	12	8	2	0	86	92.6
08:30 - 08:45	0	0	6	1	0	0	0	7	7.0	0	0	51	10	4	3	2	70	77.9
08:45 - 09:00	0	0	4	2	0	0	0	6	6.0	0	0	64	16	6	1	3	90	97.3
Hourly Total	**0**	**0**	**20**	**5**	**0**	**1**	**0**	**26**	**27.3**	**0**	**1**	**230**	**48**	**22**	**6**	**9**	**316**	**343.2**
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	51	13	2	2	1	69	73.6
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	5	0	56	19	3	4	2	89	93.7
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	1	56	17	2	0	4	80	84.4
09:45 - 10:00	0	0	2	2	0	0	0	4	4.0	0	0	59	11	6	0	0	76	79.0
Hourly Total	**0**	**0**	**4**	**3**	**0**	**0**	**0**	**7**	**7.0**	**5**	**1**	**222**	**60**	**13**	**6**	**7**	**314**	**330.7**
TOTAL	**0**	**0**	**34**	**12**	**0**	**1**	**0**	**47**	**48.3**	**5**	**2**	**651**	**160**	**48**	**15**	**21**	**902**	**961.3**
16:00 - 16:15	0	0	2	0	0	0	0	2	2.0	0	2	122	10	3	0	3	140	143.3
16:15 - 16:30	0	0	2	1	0	0	0	3	3.0	0	0	115	24	5	0	1	145	148.5
16:30 - 16:45	0	0	0	0	1	0	0	1	1.5	2	1	125	17	2	0	2	149	149.8
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	1	3	95	9	4	0	2	114	115.4
Hourly Total	**0**	**0**	**6**	**1**	**1**	**0**	**0**	**8**	**8.5**	**3**	**6**	**457**	**60**	**14**	**0**	**8**	**548**	**557.0**
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	1	2	195	23	1	0	2	224	224.5
17:15 - 17:30	0	0	4	1	0	0	0	5	5.0	0	0	119	10	1	1	2	133	136.8
17:30 - 17:45	0	1	1	2	0	0	0	4	3.4	1	3	97	11	0	0	3	115	115.4
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	2	99	13	0	0	1	115	114.8
Hourly Total	**0**	**1**	**8**	**3**	**0**	**0**	**0**	**12**	**11.4**	**2**	**7**	**510**	**57**	**2**	**1**	**8**	**587**	**591.5**
18:00 - 18:15	0	0	2	1	0	0	0	3	3.0	0	4	89	10	0	0	3	106	106.6
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	5	86	5	0	0	0	96	93.0
18:30 - 18:45	0	0	2	0	0	0	0	2	2.0	0	6	64	3	1	0	3	77	76.9
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	66	2	1	0	1	70	71.5
Hourly Total	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**7.0**	**0**	**15**	**305**	**20**	**2**	**0**	**7**	**349**	**348.0**
TOTAL	**0**	**1**	**20**	**5**	**1**	**0**	**0**	**27**	**26.9**	**5**	**28**	**1272**	**137**	**18**	**1**	**23**	**1484**	**1496.5**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 27th September 2023
Junction: 2
Approach: Broad Rushes

	Left to Station Road (N)									Right to Station Road (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	4	6	4	0	50	58.2	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	59	17	10	6	0	92	104.8	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	72	12	4	10	0	98	113.0	0	0	3	0	1	0	0	4	4.5
07:45 - 08:00	0	0	75	9	5	10	0	99	114.5	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**242**	**42**	**25**	**30**	**0**	**339**	**390.5**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**5**	**5.5**
08:00 - 08:15	0	0	79	8	1	10	0	98	111.5	0	0	2	1	0	0	0	3	3.0
08:15 - 08:30	0	0	42	11	9	4	0	66	75.7	0	0	3	0	0	0	0	3	3.0
08:30 - 08:45	0	0	54	7	1	9	0	71	83.2	0	0	4	1	0	0	0	5	5.0
08:45 - 09:00	0	0	51	13	6	6	0	76	86.8	0	0	5	1	1	0	0	7	7.5
Hourly Total	**0**	**0**	**226**	**39**	**17**	**29**	**0**	**311**	**357.2**	**0**	**0**	**14**	**3**	**1**	**0**	**0**	**18**	**18.5**
09:00 - 09:15	0	0	39	8	5	7	0	59	70.6	0	0	2	0	1	0	0	3	3.5
09:15 - 09:30	0	0	31	16	4	6	0	57	66.8	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	33	6	8	10	0	57	74.0	0	0	4	1	0	0	0	5	5.0
09:45 - 10:00	0	0	37	8	5	6	0	56	66.3	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**140**	**38**	**22**	**29**	**0**	**229**	**277.7**	**0**	**0**	**8**	**2**	**1**	**0**	**0**	**11**	**11.5**
TOTAL	**0**	**0**	**608**	**119**	**64**	**88**	**0**	**879**	**1025.4**	**0**	**0**	**26**	**5**	**3**	**0**	**0**	**34**	**35.5**
16:00 - 16:15	0	4	130	17	1	10	0	162	173.1	0	0	3	1	0	0	0	4	4.0
16:15 - 16:30	1	3	87	8	3	9	0	111	121.6	0	0	3	0	0	0	0	3	3.0
16:30 - 16:45	0	3	85	11	1	3	0	103	105.6	0	0	3	0	0	0	0	3	3.0
16:45 - 17:00	0	2	90	7	5	5	0	109	116.8	0	0	3	0	0	0	0	3	3.0
Hourly Total	**1**	**12**	**392**	**43**	**10**	**27**	**0**	**485**	**517.1**	**0**	**0**	**12**	**1**	**0**	**0**	**0**	**13**	**13.0**
17:00 - 17:15	0	2	132	12	0	3	0	149	151.7	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	1	90	3	2	2	0	98	101.0	0	0	3	1	0	0	0	4	4.0
17:30 - 17:45	0	0	130	7	2	5	0	144	151.5	0	0	10	0	0	0	0	10	10.0
17:45 - 18:00	0	0	73	6	1	2	0	82	85.1	0	0	4	0	0	0	0	4	4.0
Hourly Total	**0**	**3**	**425**	**28**	**5**	**12**	**0**	**473**	**489.3**	**0**	**0**	**20**	**1**	**0**	**0**	**0**	**21**	**21.0**
18:00 - 18:15	1	4	175	8	1	2	0	191	190.9	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	1	66	2	4	2	0	75	79.0	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	2	108	4	1	4	0	119	123.5	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	45	5	0	3	0	53	56.9	0	0	1	0	0	0	0	1	1.0
Hourly Total	**1**	**7**	**394**	**19**	**6**	**11**	**0**	**438**	**450.3**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**8.0**
TOTAL	**2**	**22**	**1211**	**90**	**21**	**50**	**0**	**1396**	**1456.7**	**0**	**0**	**40**	**2**	**0**	**0**	**0**	**42**	**42.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 15 – A453/Kegworth Road Roundabout Junction Turning Count Results

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 4
Approach: A453 Exit Slip Road

	To Kegworth Road (E)									To Kegworth Road (S)									To A453 Entry Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	14	4	0	0	0	18	18.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	11	2	0	0	0	13	13.0	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	11	0	0	0	0	11	11.0	0	0	7	0	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	10	1	0	0	0	11	11.0	0	0	4	2	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**46**	**7**	**0**	**0**	**0**	53	53.0	**0**	**0**	**17**	**3**	**0**	**1**	**0**	21	22.3	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
08:00 - 08:15	0	0	8	2	1	0	0	11	11.5	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	5	0	0	0	0	5	5.0	0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	4	0	0	1	0	5	6.3	0	0	2	3	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	5	0	0	0	0	5	5.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**22**	**2**	**1**	**1**	**0**	26	27.8	**0**	**0**	**14**	**6**	**2**	**0**	**0**	22	23.0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
09:00 - 09:15	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	1	3	4.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	5	2	0	0	0	7	7.0	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	2	3	0	0	0	5	5.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**12**	**5**	**0**	**0**	**0**	17	17.0	**0**	**0**	**5**	**1**	**0**	**1**	**1**	8	10.3	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
TOTAL	**0**	**0**	**80**	**14**	**1**	**1**	**0**	96	97.8	**0**	**0**	**36**	**10**	**2**	**2**	**1**	51	55.6	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
16:00 - 16:15	0	0	1	1	0	0	0	2	2.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	1	0	0	0	4	4.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	5	0	0	0	0	5	5.0	0	0	9	2	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	6	0	0	0	0	6	6.0	0	0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**15**	**2**	**0**	**0**	**0**	17	17.0	**0**	**0**	**28**	**6**	**1**	**0**	**0**	35	35.5	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
17:00 - 17:15	0	0	1	1	0	0	0	2	2.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	1	2	3.0	0	0	8	2	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	6	2	0	0	1	9	10.0	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**11**	**3**	**0**	**0**	**2**	16	18.0	**0**	**0**	**31**	**5**	**0**	**0**	**0**	36	36.0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
18:00 - 18:15	0	0	5	0	0	0	0	5	5.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	3	1	0	0	0	4	4.0	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**9**	**1**	**0**	**0**	**0**	10	10.0	**0**	**0**	**16**	**1**	**0**	**0**	**0**	17	17.0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0
TOTAL	**0**	**0**	**35**	**6**	**0**	**0**	**2**	43	45.0	**0**	**0**	**75**	**12**	**1**	**0**	**0**	88	88.5	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	0.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 4
Approach: Kegworth Road East

	To Kegworth Road (S)									To A453 Entry Slip Road									To A453 Exit Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	1	0	0	0	1	1.0	0	0	5	2	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	1	3	0	0	0	4	4.0	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	3	1	0	0	0	4	4.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	6	0	0	0	0	6	6.0	0	0	13	0	0	0	0	13	13.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**10**	**5**	**0**	**0**	**0**	**15**	**15.0**	**0**	**1**	**24**	**2**	**0**	**0**	**0**	**27**	**26.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	6	1	0	0	0	7	7.0	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	1	2	0	0	0	3	3.0	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	2	1	0	0	0	3	3.0	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	1	1	0	0	0	2	2.0	0	0	6	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**10**	**5**	**0**	**0**	**0**	**15**	**15.0**	**0**	**0**	**16**	**2**	**3**	**1**	**0**	**22**	**24.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	1	0	0	1	0	0	0	2	1.2	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	1	1	0	0	0	2	2.0	0	0	8	0	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**1**	**0**	**4**	**3**	**0**	**0**	**0**	**8**	**7.2**	**0**	**0**	**18**	**1**	**0**	**1**	**0**	**20**	**21.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**1**	**0**	**24**	**13**	**0**	**0**	**0**	**38**	**37.2**	**0**	**1**	**58**	**5**	**3**	**2**	**0**	**69**	**72.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	3	3	2	0	0	0	8	6.2	0	0	32	2	0	0	0	34	34.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	3	0	0	0	0	3	3.0	0	0	14	2	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	2	1	0	0	0	3	3.0	0	1	13	5	0	0	0	19	18.4	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	33	2	0	0	0	35	35.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**3**	**13**	**3**	**0**	**0**	**0**	**19**	**17.2**	**0**	**1**	**92**	**11**	**0**	**0**	**0**	**104**	**103.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	4	0	0	0	0	4	4.0	0	0	30	1	0	0	0	31	31.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	1	0	8	0	0	0	0	9	8.2	0	0	7	2	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	11	2	1	2	0	16	19.1	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	5	1	0	0	2	8	10.0	0	0	13	2	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**1**	**0**	**18**	**1**	**0**	**0**	**2**	**22**	**23.2**	**0**	**0**	**61**	**7**	**1**	**2**	**0**	**71**	**74.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	0	0	0	0	1	1	2.0	0	0	20	1	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	5	1	0	0	0	6	6.0	0	0	22	1	1	0	1	25	26.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	4	0	0	0	0	4	4.0	0	0	5	2	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	1	3	4.0	0	0	27	1	0	0	0	28	28.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**11**	**1**	**0**	**0**	**2**	**14**	**16.0**	**0**	**0**	**74**	**5**	**2**	**0**	**1**	**82**	**84.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**1**	**3**	**42**	**5**	**0**	**0**	**4**	**55**	**56.4**	**0**	**1**	**227**	**23**	**3**	**2**	**1**	**257**	**261.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 4
Approach: Kegworth Road South

	To A453 Entry Slip Road									To A453 Exit Slip Road									To Kegworth Road (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	9	3	0	0	0	12	12.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	7	1	0	0	0	8	8.0
07:30 - 07:45	0	1	3	1	0	0	0	5	4.4	0	0	0	0	0	0	0	0	0.0	0	0	11	3	0	0	1	15	16.0
07:45 - 08:00	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0.0	3	0	15	3	0	0	0	21	18.6
Hourly Total	**0**	**1**	**5**	**1**	**0**	**1**	**0**	**8**	**8.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**3**	**0**	**42**	**10**	**0**	**0**	**1**	**56**	**54.6**
08:00 - 08:15	0	0	1	1	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0.0	0	0	10	1	0	0	0	11	11.0
08:15 - 08:30	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	1	0	6	2	0	0	0	9	8.2
08:30 - 08:45	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	5	2	0	0	1	8	9.0
Hourly Total	**0**	**0**	**7**	**1**	**1**	**1**	**0**	**10**	**11.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**1**	**0**	**24**	**5**	**0**	**0**	**1**	**31**	**31.2**
09:00 - 09:15	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	10	0	0	0	0	10	10.0
09:30 - 09:45	0	0	1	1	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:45 - 10:00	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	6	1	0	0	0	7	7.0
Hourly Total	**0**	**0**	**3**	**1**	**1**	**0**	**0**	**5**	**5.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**19**	**2**	**0**	**0**	**0**	**21**	**21.0**
TOTAL	**0**	**1**	**15**	**3**	**2**	**2**	**0**	**23**	**26.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**4**	**0**	**85**	**17**	**0**	**0**	**2**	**108**	**106.8**
16:00 - 16:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	3	3	1	0	0	7	7.5
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	6	0	0	0	0	6	6.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	13	3	0	0	0	16	16.0
16:45 - 17:00	0	0	0	2	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	4	0	1	0	0	5	5.5
Hourly Total	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**5.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**26**	**6**	**2**	**0**	**0**	**34**	**35.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	10	1	0	0	0	11	11.0
17:15 - 17:30	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	1	0	4	2	0	0	0	7	6.2
17:30 - 17:45	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	9	3	0	0	0	12	12.0
17:45 - 18:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	0	0	6	6.0
Hourly Total	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**1**	**0**	**28**	**7**	**0**	**0**	**0**	**36**	**35.2**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	10	1	0	0	1	12	13.0
18:15 - 18:30	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	0	0	6	6.0
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	1	0	10	1	0	0	0	12	11.2
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	9	2	0	0	0	11	11.0
Hourly Total	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**3**	**3.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**1**	**0**	**34**	**5**	**0**	**0**	**1**	**41**	**41.2**
TOTAL	**0**	**0**	**10**	**4**	**0**	**0**	**0**	**14**	**14.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**2**	**0**	**88**	**18**	**2**	**0**	**1**	**111**	**111.4**

PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 16 – A453/Barton Lane/West Leake Lane Roundabouts Junction Turning Count Results

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: Barton Lane North

	To A453 Entry Slip Road									To Barton Lane (S)									To A453 Exit Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	0	0	0	0	**2**	**2.0**	0	0	5	1	0	0	0	**6**	**6.0**	0	0	0	0	0	0	0	**0**	**0.0**
07:15 - 07:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	1	2	0	0	1	**4**	**5.0**	0	0	0	0	0	0	0	**0**	**0.0**
07:30 - 07:45	0	0	0	0	0	0	0	**0**	**0.0**	0	0	9	4	1	2	0	**16**	**19.1**	0	0	0	0	0	0	0	**0**	**0.0**
07:45 - 08:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	6	5	1	1	0	**13**	**14.8**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**21**	**12**	**2**	**3**	**1**	**39**	**44.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	8	1	1	0	1	**11**	**12.5**	0	0	0	0	0	0	0	**0**	**0.0**
08:15 - 08:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	10	3	0	3	0	**16**	**19.9**	0	0	0	0	0	0	0	**0**	**0.0**
08:30 - 08:45	0	0	0	0	0	0	0	**0**	**0.0**	0	0	10	3	1	0	0	**14**	**14.5**	0	0	0	0	0	0	0	**0**	**0.0**
08:45 - 09:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	5	1	0	2	0	**8**	**10.6**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**33**	**8**	**2**	**5**	**1**	**49**	**57.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	1	1	1	1	0	**4**	**5.8**	0	0	0	0	0	0	0	**0**	**0.0**
09:15 - 09:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	4	2	0	0	0	**6**	**6.0**	0	0	0	0	0	0	0	**0**	**0.0**
09:30 - 09:45	0	0	0	0	0	0	0	**0**	**0.0**	0	0	5	2	0	0	1	**8**	**9.0**	0	0	0	0	0	0	0	**0**	**0.0**
09:45 - 10:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	3	1	0	0	0	**4**	**4.0**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**13**	**6**	**1**	**1**	**1**	**22**	**24.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**67**	**26**	**5**	**9**	**3**	**110**	**127.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	3	0	0	0	0	**3**	**3.0**	0	0	7	1	0	0	0	**8**	**8.0**	0	0	0	0	0	0	0	**0**	**0.0**
16:15 - 16:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	9	1	0	0	0	**10**	**10.0**	0	0	0	0	0	0	0	**0**	**0.0**
16:30 - 16:45	0	0	1	0	0	0	0	**1**	**1.0**	1	0	3	0	0	0	0	**4**	**3.2**	0	0	0	0	0	0	0	**0**	**0.0**
16:45 - 17:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	4	0	0	0	0	**4**	**4.0**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**	**1**	**0**	**23**	**2**	**0**	**0**	**0**	**26**	**25.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	0	0	0	0	0	**0**	**0.0**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	0	0	0	0	0	**0**	**0.0**
17:15 - 17:30	0	0	0	0	0	0	0	**0**	**0.0**	1	0	5	0	0	0	0	**6**	**5.2**	0	0	0	0	0	0	0	**0**	**0.0**
17:30 - 17:45	0	0	0	0	0	0	0	**0**	**0.0**	0	0	3	1	0	0	1	**5**	**6.0**	0	0	0	0	0	0	0	**0**	**0.0**
17:45 - 18:00	0	0	1	0	0	0	0	**1**	**1.0**	0	0	4	2	0	0	0	**6**	**6.0**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1.0**	**1**	**0**	**13**	**3**	**0**	**0**	**1**	**18**	**18.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	1	0	0	0	0	**1**	**1.0**	0	0	5	0	0	0	0	**5**	**5.0**	0	0	0	0	0	0	0	**0**	**0.0**
18:15 - 18:30	0	0	0	0	0	0	0	**0**	**0.0**	0	0	3	1	0	0	0	**4**	**4.0**	0	0	0	0	0	0	0	**0**	**0.0**
18:30 - 18:45	0	0	1	0	0	0	0	**1**	**1.0**	0	0	3	1	0	0	0	**4**	**4.0**	0	0	0	0	0	0	0	**0**	**0.0**
18:45 - 19:00	0	0	0	0	0	0	0	**0**	**0.0**	0	0	3	0	0	0	0	**3**	**3.0**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**	**0**	**0**	**14**	**2**	**0**	**0**	**0**	**16**	**16.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**7**	**7.0**	**2**	**0**	**50**	**7**	**0**	**0**	**1**	**60**	**59.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: A453 Entry Slip Road

	To Barton Lane (S)									To A453 Exit Slip Road									To Barton Lane (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: Barton Lane South

	To A453 Exit Slip Road									To Barton Lane (N)									To A453 Entry Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	5	1	1	0	0	7	7.5	0	0	2	0	2	1	0	5	7.3
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	1	1	1	0	9	10.8
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	13	1	0	2	1	17	20.6
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	11	1	0	4	0	16	21.2
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**9**	**2**	**1**	**0**	**0**	**12**	**12.5**	**0**	**0**	**32**	**3**	**3**	**8**	**1**	**47**	**59.9**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	2	0	3	5.6	0	0	15	3	0	0	0	18	18.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	13	0	0	0	1	14	15.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	10	0	0	0	0	10	10.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3	0	0	9	1	0	0	1	11	12.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**9**	**2**	**0**	**4**	**0**	**15**	**20.2**	**0**	**0**	**47**	**4**	**0**	**0**	**2**	**53**	**55.0**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	1	0	4	5.3	0	0	3	0	1	0	1	5	6.5
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	1	0	3	4.3	0	0	5	0	0	0	0	5	5.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	1	3	4.5	0	0	4	0	0	2	0	6	8.6
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**7**	**1**	**1**	**2**	**1**	**12**	**16.1**	**0**	**0**	**16**	**1**	**1**	**2**	**1**	**21**	**25.1**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**25**	**5**	**2**	**6**	**1**	**39**	**48.8**	**0**	**0**	**95**	**8**	**4**	**10**	**4**	**121**	**140.0**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	3	1	1	0	0	5	5.5	0	0	6	4	0	0	0	10	10.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	1	8	2	0	0	1	12	12.4
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0	0	1	7	0	0	1	0	9	9.7
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	7	1	0	0	0	8	8.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**7**	**2**	**1**	**0**	**0**	**10**	**10.5**	**0**	**2**	**28**	**7**	**0**	**1**	**1**	**39**	**40.1**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	2	0	0	0	2	2.0	0	0	13	1	0	1	1	16	18.3
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	2	1	0	0	0	3	3.0	0	0	15	2	0	0	1	18	19.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	13	1	0	0	0	14	14.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**5**	**3**	**0**	**0**	**0**	**8**	**8.0**	**0**	**0**	**47**	**4**	**0**	**1**	**2**	**54**	**57.3**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	5	1	0	1	1	8	10.3
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	4	1	0	1	0	6	7.3
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	5	1	0	0	0	6	6.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**9**	**9.0**	**0**	**0**	**15**	**3**	**0**	**2**	**1**	**21**	**24.6**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**21**	**5**	**1**	**0**	**0**	**27**	**27.5**	**0**	**2**	**90**	**14**	**0**	**4**	**4**	**114**	**122.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 6
Approach: A453 Exit Slip Road

	To Barton Lane (N)									To A453 Entry Slip Road									To Barton Lane (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	4	1	1	3	0	9	13.4	0	0	0	0	0	0	0	0	0.0	0	0	24	14	2	5	0	45	52.5
07:15 - 07:30	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	1	25	13	3	5	0	47	54.4
07:30 - 07:45	0	0	1	4	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	30	11	1	3	0	45	49.4
07:45 - 08:00	0	0	4	2	0	1	0	7	8.3	0	0	0	0	0	0	0	0	0.0	0	0	28	17	2	5	0	52	59.5
Hourly Total	**0**	**0**	**13**	**7**	**1**	**5**	**0**	**26**	**33.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**107**	**55**	**8**	**18**	**0**	**189**	**215.8**
08:00 - 08:15	0	0	3	2	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	39	11	1	5	0	56	63.0
08:15 - 08:30	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0	0	0	49	9	7	8	0	73	86.9
08:30 - 08:45	0	0	10	4	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0.0	0	0	42	6	3	7	0	58	68.6
08:45 - 09:00	0	0	8	5	2	1	0	16	18.3	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	3	0	61	67.4
Hourly Total	**0**	**0**	**25**	**11**	**4**	**1**	**0**	**41**	**44.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**170**	**39**	**16**	**23**	**0**	**248**	**285.9**
09:00 - 09:15	0	0	28	8	1	1	0	38	39.8	0	0	0	0	0	0	0	0	0.0	0	0	34	12	2	7	0	55	65.1
09:15 - 09:30	0	0	5	5	1	1	0	12	13.8	0	0	0	0	0	0	0	0	0.0	0	0	26	7	2	5	0	40	47.5
09:30 - 09:45	0	0	7	2	2	0	0	11	12.0	0	0	0	0	0	0	0	0	0.0	0	0	8	2	1	1	0	12	13.8
09:45 - 10:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	5	5	0	3	0	13	16.9
Hourly Total	**0**	**0**	**44**	**15**	**4**	**2**	**0**	**65**	**69.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**73**	**26**	**5**	**16**	**0**	**120**	**143.3**
TOTAL	**0**	**0**	**82**	**33**	**9**	**8**	**0**	**132**	**146.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**350**	**120**	**29**	**57**	**0**	**557**	**645.0**
16:00 - 16:15	0	0	2	1	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	17	5	0	5	1	28	35.5
16:15 - 16:30	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	1	30	4	0	3	0	38	41.3
16:30 - 16:45	0	0	4	1	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	0	36	2	1	4	0	43	48.7
16:45 - 17:00	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	50	8	0	4	0	62	67.2
Hourly Total	**0**	**1**	**9**	**4**	**0**	**0**	**0**	**14**	**13.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**133**	**19**	**1**	**16**	**1**	**171**	**192.7**
17:00 - 17:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	34	8	0	1	0	43	44.3
17:15 - 17:30	0	1	2	0	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0.0	0	0	47	5	1	1	0	54	55.8
17:30 - 17:45	0	0	2	1	0	0	1	4	5.0	0	0	0	0	0	0	0	0	0.0	0	0	45	2	0	2	0	49	51.6
17:45 - 18:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	38	3	0	0	0	41	41.0
Hourly Total	**0**	**1**	**9**	**1**	**0**	**0**	**1**	**12**	**12.4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**164**	**18**	**1**	**4**	**0**	**187**	**192.7**
18:00 - 18:15	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	23	3	0	0	0	26	26.0
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	27	2	0	1	0	30	31.3
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	13	3	1	2	0	19	22.1
18:45 - 19:00	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0	0	0	17	2	0	4	0	23	28.2
Hourly Total	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**9**	**9.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**80**	**10**	**1**	**7**	**0**	**98**	**107.6**
TOTAL	**0**	**2**	**27**	**5**	**0**	**0**	**1**	**35**	**34.8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**377**	**47**	**3**	**27**	**1**	**456**	**493.0**

PCU Factors	
CYCLE	0.2
M/CYCL	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: Barton Lane

	To A453 Exit Slip Road									To West Leake Lane									To A453 Entry Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	28	12	2	5	0	47	54.5	0	0	1	3	0	0	0	4	4.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	20	13	1	5	1	41	48.4	0	0	6	2	2	0	0	10	11.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	35	10	2	4	0	51	57.2	0	0	4	5	0	1	0	10	11.3
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	29	21	1	6	0	57	65.3	0	0	5	1	2	0	0	8	9.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**112**	**56**	**6**	**20**	**1**	**196**	**225.4**	**0**	**0**	**16**	**11**	**4**	**1**	**0**	**32**	**35.3**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	41	11	2	5	1	60	68.5	0	0	6	1	0	0	0	7	7.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	47	11	6	7	0	71	83.1	0	0	12	1	1	4	0	18	23.7
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	41	9	2	6	0	58	66.8	0	0	11	0	2	1	0	14	16.3
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	40	13	5	4	0	62	69.7	0	0	5	1	0	1	0	7	8.3
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**169**	**44**	**15**	**22**	**1**	**251**	**288.1**	**0**	**0**	**34**	**3**	**3**	**6**	**0**	**46**	**55.3**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	25	10	1	8	0	44	54.9	0	0	10	3	2	0	0	15	16.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	23	9	2	5	0	39	46.5	0	0	7	0	0	0	0	7	7.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	1	8	10.3	0	0	8	3	1	0	0	12	12.5
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	5	3	0	3	0	11	14.9	0	0	3	3	0	0	0	6	6.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**58**	**23**	**3**	**17**	**1**	**102**	**126.6**	**0**	**0**	**28**	**9**	**3**	**0**	**0**	**40**	**41.5**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**1**	**339**	**123**	**24**	**59**	**3**	**549**	**640.1**	**0**	**0**	**78**	**23**	**10**	**7**	**0**	**118**	**132.1**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	20	5	0	5	1	31	38.5	0	0	4	1	0	0	0	5	5.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	1	35	4	0	3	0	43	46.3	0	0	4	1	0	0	0	5	5.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	1	0	38	1	1	4	0	45	49.9	0	0	1	1	0	0	0	2	2.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	51	8	0	4	0	63	68.2	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**1**	**1**	**144**	**18**	**1**	**16**	**1**	**182**	**202.9**	**0**	**0**	**12**	**3**	**0**	**0**	**0**	**15**	**15.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	32	8	0	1	0	41	42.3	0	0	3	0	0	0	0	3	3.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	1	0	50	3	1	1	0	56	57.0	0	0	2	2	0	0	0	4	4.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	44	2	0	2	1	49	52.6	0	0	4	1	0	0	0	5	5.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	39	5	0	0	0	44	44.0	0	0	3	0	0	0	0	3	3.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**1**	**0**	**165**	**18**	**1**	**4**	**1**	**190**	**195.9**	**0**	**0**	**12**	**3**	**0**	**0**	**0**	**15**	**15.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	24	3	0	0	0	27	27.0	0	0	4	0	0	0	0	4	4.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	27	3	0	1	0	31	32.3	0	0	3	0	0	0	0	3	3.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	13	4	1	2	0	20	23.1	0	0	3	0	0	0	0	3	3.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	20	1	0	4	0	25	30.2	0	0	0	1	0	0	0	1	1.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**84**	**11**	**1**	**7**	**0**	**103**	**112.6**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**11**	**11.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**2**	**1**	**393**	**47**	**3**	**27**	**2**	**475**	**511.4**	**0**	**0**	**34**	**7**	**0**	**0**	**0**	**41**	**41.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Exit Slip Road

	To West Leake Lane									To A453 Entry Slip Road									To Barton Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	2	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	0	0	4	4.0
07:15 - 07:30	0	0	4	2	2	1	0	9	11.3	0	0	0	0	0	0	0	0	0.0	0	0	0	1	1	0	0	2	2.5
07:30 - 07:45	0	1	3	3	0	0	0	7	6.4	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0
07:45 - 08:00	0	0	8	4	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**1**	**16**	**11**	**2**	**2**	**0**	**32**	**35.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**8**	**2**	**1**	**0**	**0**	**11**	**11.5**
08:00 - 08:15	0	0	14	0	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	8	1	0	0	2	11	13.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	5	3	1	0	1	10	11.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**38**	**5**	**2**	**0**	**3**	**48**	**52.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**
09:00 - 09:15	0	0	12	2	0	1	0	15	16.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	6	3	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
09:30 - 09:45	0	0	7	4	1	2	0	14	17.1	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	4	2	1	0	1	8	9.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**29**	**11**	**3**	**4**	**2**	**49**	**57.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**2.0**
TOTAL	**0**	**1**	**83**	**27**	**7**	**6**	**5**	**129**	**144.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**12**	**2**	**1**	**0**	**0**	**15**	**15.5**
16:00 - 16:15	0	0	1	2	0	1	1	5	7.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
16:15 - 16:30	0	0	10	2	0	2	0	14	16.6	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
16:30 - 16:45	0	0	5	4	1	1	1	12	14.8	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	18	1	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**34**	**9**	**1**	**4**	**2**	**50**	**57.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**
17:00 - 17:15	0	0	13	1	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
17:15 - 17:30	0	0	13	0	0	0	1	14	15.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	11	1	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**47**	**3**	**0**	**1**	**1**	**52**	**54.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**
18:00 - 18:15	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	11	0	0	1	1	13	15.3	0	0	0	0	0	0	0	0	0.0	0	0	3	1	0	1	0	5	6.3
18:30 - 18:45	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0
18:45 - 19:00	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**30**	**1**	**0**	**3**	**1**	**35**	**39.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**5**	**1**	**0**	**1**	**0**	**7**	**8.3**
TOTAL	**0**	**0**	**111**	**13**	**1**	**8**	**4**	**137**	**151.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**11**	**2**	**0**	**1**	**0**	**14**	**15.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: West Leake Lane

	To A453 Entry Slip Road									To Barton Lane									To A453 Exit Slip Road								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	35	4	3	3	0	45	50.4	0	0	4	0	3	1	0	8	10.8	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	25	5	0	5	0	35	41.5	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	34	13	1	3	0	51	55.4	0	0	11	1	0	2	1	15	18.6	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	1	57	4	0	8	0	70	79.8	0	0	11	2	0	4	0	17	22.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**151**	**26**	**4**	**19**	**0**	**201**	**227.1**	**0**	**0**	**33**	**3**	**3**	**8**	**1**	**48**	**60.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	63	7	2	8	0	80	91.4	0	0	16	3	0	2	0	21	23.6	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	36	6	0	3	0	45	48.9	0	0	15	1	0	0	1	17	18.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	1	40	7	0	6	0	54	61.2	0	0	13	0	0	1	0	14	15.3	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	1	31	8	2	4	0	46	51.6	0	0	10	2	0	1	1	14	16.3	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**2**	**170**	**28**	**4**	**21**	**0**	**225**	**253.1**	**0**	**0**	**54**	**6**	**0**	**4**	**2**	**66**	**73.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	32	6	0	7	0	45	54.1	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	22	7	1	6	0	36	44.3	0	0	4	0	1	1	1	7	9.8	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	25	2	0	6	0	33	40.8	0	0	7	0	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	18	6	2	6	0	32	40.8	0	0	4	1	1	2	1	9	13.1	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**97**	**21**	**3**	**25**	**0**	**146**	**180.0**	**0**	**0**	**21**	**2**	**2**	**4**	**2**	**31**	**39.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**3**	**418**	**75**	**11**	**65**	**0**	**572**	**660.2**	**0**	**0**	**108**	**11**	**5**	**16**	**5**	**145**	**173.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	37	16	3	0	0	56	57.5	0	0	8	5	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	39	13	2	3	0	57	61.9	0	1	6	2	0	0	1	10	10.4	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	37	11	2	2	0	52	55.6	0	1	8	1	0	1	0	11	11.7	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	1	36	5	0	5	0	47	52.9	0	0	10	1	0	0	0	11	11.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**149**	**45**	**7**	**10**	**0**	**212**	**227.9**	**0**	**2**	**32**	**9**	**1**	**1**	**1**	**46**	**47.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	37	16	1	1	0	55	56.8	0	0	12	2	0	1	1	16	18.3	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	37	4	1	2	0	44	47.1	0	0	17	3	0	0	1	21	22.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	38	2	0	2	0	42	44.6	0	0	14	1	0	0	0	15	15.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	33	8	1	4	0	46	51.7	0	0	6	0	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**145**	**30**	**3**	**9**	**0**	**187**	**200.2**	**0**	**0**	**49**	**6**	**0**	**1**	**2**	**58**	**61.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	1	24	0	0	0	0	25	24.4	0	0	8	1	0	1	1	11	13.3	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	13	1	3	5	0	22	30.0	0	0	4	0	0	0	0	4	4.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	1	8	2	0	2	0	13	15.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	12	1	0	2	0	15	17.6	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**2**	**57**	**4**	**3**	**9**	**0**	**75**	**87.0**	**0**	**0**	**19**	**2**	**0**	**1**	**1**	**23**	**25.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**3**	**351**	**79**	**13**	**28**	**0**	**474**	**515.1**	**0**	**2**	**100**	**17**	**1**	**3**	**4**	**127**	**134.2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Airport
Wednesday 20th September 2023
Junction: 7
Approach: A453 Entry Slip Road

	To Barton Lane									To A453 Exit Slip Road									To West Leake Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 17 – GEH Comparison

J1 - A453 / Walton Hill

Junction Arm	
A	Northern Arm
B	A453
C	Walton Hill

2022 Observed Flows (Lights AM)

	A	B	C
A	0	430	241
B	165	0	133
C	284	340	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	721	337
B	131	0	228
C	399	320	0

GEH Comparison

	A	B	C
A	0	12	6
B	3	0	7
C	6	1	0

J2 - A453 / East Midland Airport Access

Junction Arm	
A	East Midlands Airport Access
B	A453 (E)
C	A453(W)

2022 Observed Flows (Lights AM)

	A	B	C
A	0	104	35
B	239	0	312
C	127	458	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	4	67
B	58	0	291
C	267	776	0

GEH Comparison

	A	B	C
A	0	14	4
B	15	0	1
C	10	13	0

J3 - A453 / Hunter Road

Junction Arm	
A	Hunter Road
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Lights AM)

	A	B	C
A	0	89	26
B	367	0	525
C	50	512	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	155	0
B	543	0	281
C	0	578	0

GEH Comparison

	A	B	C
A	0	6	7
B	8	0	12
C	10	3	0

J4 - A453 / M1 J23A Access / Donnington Services

Junction Arm	
A	A453 (N)
B	M1 J23A Access
C	Donnington Services Access
D	A453 (W)

2022 Observed Flows (Lights AM)

	A	B	C	D
A	0	486	57	395
B	828	0	102	448
C	41	89	0	50
D	368	213	21	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C	D
A	0	145	0	211
B	1276	0	0	608
C	0	0	0	0
D	351	381	0	0

GEH Comparison

	A	B	C	D
A	0	19	11	11
B	14	0	14	7
C	9	13	0	10
D	1	10	6	0

J5 - A453 / Derby Road / M1 J24 / A50

Junction Arm	
A	M1 J24 (N)
B	A453 (N)
C	Derby Road
D	M1 J24 (S)
E	A453 (S)
F	A50
G	Hilton Hotel Lane

2022 Observed Flows (Lights AM)

	A	B	C	D	E	F	G
A	0	820	505	0	491	287	14
B	162	0	59	423	381	212	14
C	61	73	0	49	173	94	2
D	5	661	87	0	3	957	21
E	204	211	27	38	0	846	6
F						0	
G	5	63	9	23	17	9	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C	D	E	F	G
A	0	440	521	0	87	0	0
B	136	0	1	660	68	507	64
C	183	0	0	122	0	370	20
D	0	802	84	0	4	545	75
E	163	84	1	0	0	1024	7
F	0	0	0	0	0	0	0
G	13	203	159	16	1	0	0

GEH Comparison

	A	B	C	D	E	F	G
A	0	15	1	0	24	24	5
B	2	0	11	10	21	16	8
C	11	12	0	8	19	18	5
D	3	5	0	0	1	15	8
E	3	10	7	9	0	6	0
F	0	0	0	0	0	0	0
G	3	12	16	2	5	4	0

J6 - A453 / Northon Arm

Junction Arm	
A	Northern Arm
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Lights AM)

	A	B	C
A	0	42	28
B	205	0	110
C	208	485	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	119	77
B	118	0	164
C	344	458	0

GEH Comparison

	A	B	C
A	0	9	7
B	7	0	5
C	8	1	0

J7 - A453 / The Green

Junction Arm	
A	A453 (E)
B	The Green
C	A453 (W)

2022 Observed Flows (Lights AM)

	A	B	C
A	0	10	230
B	16	0	85
C	458	69	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	33	172
B	200	0	177
C	560	219	0

GEH Comparison

	A	B	C
A	0	5	4
B	18	0	8
C	5	13	0

J8 - A453 / Grimes Gate

Junction Arm	
A	A453 (E)
B	Grimes Gate
C	A453 (W)

2022 Observed Flows (Lights AM)

	A	B	C
A	0	20	234
B	62	0	6
C	467	7	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C
A	0	36	205
B	43	0	0
C	760	0	0

GEH Comparison

	A	B	C
A	0	3	2
B	3	0	3
C	12	4	0

J9 - A453 / A6 Kegworth Bypass / Wilders Way

Junction Arm	
A	A453 (N)
B	A6 Kegworth Bypass
C	A453 (S)
D	Wilders Way

2022 Observed Flows (Lights AM)

	A	B	C	D
A	0	26	275	250
B	270	0	102	305
C	681	92	2	156
D	69	2	37	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C	D
A	0	4	145	3
B	179	0	186	269
C	1098	155	0	370
D	20	15	29	0

GEH Comparison

	A	B	C	D
A	0	6	9	22
B	6	0	7	2
C	14	6	0	13
D	7	4	1	0

J10 - M1 J23 Slip Road / A512 / Ashby Road East

Junction Arm	
A	M1 J23 Slip Road (N)
B	A512
C	M1 J23 Slip Road (S)
D	Ashby Road (E)

2022 Observed Flows (Lights AM)

	A	B	C	D
A	0	741	0	289
B	444	0	127	338
C	0	383	0	0
D	242	671	108	0

2022 Saturn Actual Flows (Lights AM)

	A	B	C	D
A	0	217	0	431
B	155	0	124	713
C	0	125	0	337
D	312	219	215	0

GEH Comparison

	A	B	C	D
A	0	24	0	7
B	17	0	0	16
C	0	16	0	26
D	4	21	8	0

J1 - A453 / Walton Hill

Junction Arm	
A	Northern Arm
B	A453
C	Walton Hill

2022 Observed Flows (Lights PM)

	A	B	C
A	0	208	277
B	325	0	270
C	213	181	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	245	353
B	382	0	284
C	322	193	0

GEH Comparison

	A	B	C
A	0	2	4
B	3	0	1
C	7	1	0

J2 - A453 / East Midland Airport Access

Junction Arm	
A	East Midlands Airport Access
B	A453 (E)
C	A453(W)

2022 Observed Flows (Lights PM)

	A	B	C
A	0	220	65
B	125	0	397
C	37	317	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	57	252
B	10	0	415
C	95	337	0

GEH Comparison

	A	B	C
A	0	14	15
B	14	0	1
C	7	1	0

J3 - A453 / Hunter Road

Junction Arm	
A	Hunter Road
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Lights PM)

	A	B	C
A	0	335	34
B	110	0	488
C	28	509	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	476	0
B	136	0	447
C	0	582	0

GEH Comparison

	A	B	C
A	0	7	8
B	2	0	2
C	7	3	0

J4 - A453 / M1 J23A Access / Donnington Services

Junction Arm	
A	A453 (N)
B	M1 J23A Access
C	Donnington Services Access
D	A453 (W)

2022 Observed Flows (Lights PM)

	A	B	C	D
A	0	332	62	154
B	700	0	111	402
C	76	109	0	52
D	568	239	47	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C	D
A	0	385	0	209
B	1201	0	0	338
C	0	0	0	0
D	491	566	0	0

GEH Comparison

	A	B	C	D
A	0	3	11	4
B	16	0	15	3
C	0	15	0	10
D	3	16	10	0

J5 - A453 / Derby Road / M1 J24 / A50

Junction Arm	
A	M1 J24 (N)
B	A453 (N)
C	Derby Road
D	M1 J24 (S)
E	A453 (S)
F	A50
G	Hilton Hotel Lane

2022 Observed Flows (Lights PM)

	A	B	C	D	E	F	G
A	0	857	530	4	160	218	10
B	247	0	73	777	270	379	11
C	87	56	0	50	86	129	2
D	0	489	67	0	4	978	14
E	309	242	40	35	0	926	5
F	0	0	0	0	0	0	0
G	15	20	10	8	4	11	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C	D	E	F	G
A	0	754	578	0	233	0	0
B	138	0	0	936	164	644	68
C	285	0	0	0	0	347	22
D	0	662	112	0	83	584	55
E	271	116	24	81	0	1156	19
F	0	0	0	0	0	0	0
G	39	58	21	27	8	0	0

GEH Comparison

	A	B	C	D	E	F	G
A	0	4	2	3	5	21	4
B	8	0	12	5	7	12	9
C	15	11	0	10	13	14	6
D	0	7	5	0	12	14	7
E	2	9	3	6	0	7	4
F	0	0	0	0	0	0	0
G	5	6	3	5	2	5	0

J6 - A453 / Northern Arm

Junction Arm	
A	Northern Arm
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Lights PM)

	A	B	C
A	0	144	207
B	67	0	342
C	110	246	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	46	309
B	110	0	273
C	332	116	0

GEH Comparison

	A	B	C
A	0	10	6
B	5	0	4
C	15	10	0

J7 - A453 / The Green

Junction Arm	
A	A453 (E)
B	The Green
C	A453 (W)

2022 Observed Flows (Lights PM)

	A	B	C
A	0	12	357
B	14	0	58
C	286	104	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	130	285
B	97	0	139
C	241	153	0

GEH Comparison

	A	B	C
A	0	14	4
B	11	0	8
C	3	4	0

J8 - A453 / Grimes Gate

Junction Arm	
A	A453 (E)
B	Grimes Gate
C	A453 (W)

2022 Observed Flows (Lights PM)

	A	B	C
A	0	70	360
B	28	0	9
C	288	12	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C
A	0	27	415
B	17	0	0
C	338	0	0

GEH Comparison

	A	B	C
A	0	6	3
B	2	0	4
C	3	5	0

J9 - A453 / A6 Kegworth Bypass / Wilders Way

Junction Arm	
A	A453 (N)
B	A6 Kegworth Bypass
C	A453 (S)
D	Wilders Way

2022 Observed Flows (Lights PM)

	A	B	C	D
A	5	57	209	193
B	288	0	95	294
C	665	146	0	42
D	149	15	73	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C	D
A	0	238	198	42
B	393	0	355	27
C	1516	61	0	87
D	373	126	173	0

GEH Comparison

	A	B	C	D
A	0	15	1	14
B	6	0	17	21
C	26	8	0	6
D	14	13	9	0

J10 - M1 J23 Slip Road / A512 / Ashby Road East

Junction Arm	
A	M1 J23 Slip Road (N)
B	A512
C	M1 J23 Slip Road (S)
D	Ashby Road (E)

2022 Observed Flows (Lights PM)

	A	B	C	D
A	0	394	0	155
B	469	0	341	496
C	0	185	0	122
D	204	373	114	0

2022 Saturn Actual Flows (Lights PM)

	A	B	C	D
A	0	305	0	348
B	258	0	119	401
C	0	182	0	243
D	311	467	340	0

GEH Comparison

	A	B	C	D
A	0	5	0	12
B	11	0	15	4
C	0	0	0	9
D	7	5	15	0

J1 - A453 / Walton Hill

Junction Arm	
A	Northern Arm
B	A453
C	Walton Hill

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	45	23
B	25	0	28
C	15	33	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	0	4
B	0	0	20
C	1	40	0

GEH Comparison

	A	B	C
A	0	9	5
B	7	0	2
C	5	1	0

J2 - A453 / East Midland Airport Access

Junction Arm	
A	East Midlands Airport Access
B	A453 (E)
C	A453(W)

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	5	2
B	1	0	39
C	1	1	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	0	3
B	0	0	17
C	8	32	0

GEH Comparison

	A	B	C
A	0	3	1
B	1	0	4
C	3	8	0

J3 - A453 / Hunter Road

Junction Arm	
A	Hunter Road
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	18	0
B	17	0	40
C	1	60	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	8	0
B	36	0	39
C	0	34	0

GEH Comparison

	A	B	C
A	0	3	####
B	4	0	0
C	1	4	0

J4 - A453 / M1 J23A Access / Donnington

Junction Arm	
A	A453 (N)
B	M1 J23A Access
C	Donnington Services Access
D	A453 (W)

2022 Observed Flows (Heavies AM)

	A	B	C	D
A	0	74	10	25
B	124	0	32	27
C	48	23	0	5
D	40	36	2	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C	D
A	0	65	0	20
B	362	0	0	54
C	0	0	0	0
D	39	3	0	0

GEH Comparison

	A	B	C	D
A	0	1	4	1
B	15	0	8	4
C	10	7	0	3
D	0	7	2	0

J5 - A453 / Derby Road / M1 J24 / A50

Junction Arm	
A	M1 J24 (N)
B	A453 (N)
C	Derby Road
D	M1 J24 (S)
E	A453 (S)
F	A50
G	Hilton Hotel Lane

2022 Observed Flows (Heavies AM)

	A	B	C	D	E	F	G
A	0	80	21	0	51	34	0
B	25	0	1	60	43	34	0
C	0	2	0	5	1	13	0
D	0	70	11	0	2	193	0
E	36	21	3	19	0	111	0
F						0	
G	0	0	0	0	0	0	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C	D	E	F	G
A	0	103	3	0	306	0	2
B	11	0	0	75	80	87	0
C	0	0	0	0	0	0	0
D	0	90	0	0	0	109	3
E	177	50	0	0	0	169	2
F	0	0	0	0	0	0	0
G	0	0	0	1	1	1	0

GEH Comparison

	A	B	C	D	E	F	G
A	0	2	5	0	19	8	2
B	3	0	1	2	5	7	0
C	0	2	0	3	1	5	0
D	0	2	5	0	2	7	2
E	14	5	2	6	0	5	2
F	0	0	0	0	0	0	0
G	0	0	0	1	1	1	0

J6 - A453 / Northan Arm

Junction Arm	
A	Northern Arm
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	11	16
B	7	0	23
C	16	30	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	3	29
B	0	0	5
C	17	22	0

GEH Comparison

	A	B	C
A	0	3	3
B	4	0	5
C	0	2	0

J7 - A453 / The Green

Junction Arm	
A	A453 (E)
B	The Green
C	A453 (W)

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	1	30
B	1	0	0
C	39	2	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	0	17
B	0	0	0
C	32	0	0

GEH Comparison

	A	B	C
A	0	1	3
B	1	0	0
C	1	2	0

J8 - A453 / Grimes Gate

Junction Arm	
A	A453 (E)
B	Grimes Gate
C	A453 (W)

2022 Observed Flows (Heavies AM)

	A	B	C
A	0	0	31
B	1	0	0
C	40	0	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C
A	0	0	17
B	0	0	0
C	32	0	0

GEH Comparison

	A	B	C
A	0	0	3
B	1	0	0
C	1	0	0

J9 - A453 / A6 Kegworth Bypass / Wilders Way

Junction Arm	
A	A453 (N)
B	A6 Kegworth Bypass
C	A453 (S)
D	Wilders Way

2022 Observed Flows (Heavies AM)

	A	B	C	D
A	3	20	17	26
B	11	0	3	16
C	65	7	0	28
D	21	2	21	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C	D
A	0	25	18	326
B	54	0	3	22
C	45	33	0	323
D	308	66	68	0

GEH Comparison

	A	B	C	D
A	0	1	0	23
B	8	0	0	1
C	3	6	0	22
D	22	11	7	0

J10 - M1 J23 Slip Road / A512 / Ashby Road East

Junction Arm	
A	M1 J23 Slip Road (N)
B	A512
C	M1 J23 Slip Road (S)
D	Ashby Road (E)

2022 Observed Flows (Heavies AM)

	A	B	C	D
A	0	27	0	44
B	25	0	17	20
C	0	20	0	22
D	24	32	12	0

2022 Saturn Actual Flows (Heavies AM)

	A	B	C	D
A	0	6	0	103
B	12	0	2	47
C	0	2	0	14
D	13	47	15	0

GEH Comparison

	A	B	C	D
A	0	5	0	7
B	3	0	5	5
C	0	5	0	2
D	3	2	1	0

J1 - A453 / Walton Hill

Junction Arm	
A	Northern Arm
B	A453
C	Walton Hill

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	10	6
B	9	0	9
C	7	3	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	0	0
B	0	0	20
C	0	11	0

GEH Comparison

	A	B	C
A	0	4	3
B	4	0	3
C	4	3	0

J2 - A453 / East Midland Airport Access

Junction Arm	
A	East Midlands Airport Access
B	A453 (E)
C	A453(W)

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	2	0
B	4	0	23
C	2	15	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	0	3
B	0	0	17
C	1	10	0

GEH Comparison

	A	B	C
A	0	2	2
B	3	0	1
C	1	1	0

J3 - A453 / Hunter Road

Junction Arm	
A	Hunter Road
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	19	1
B	16	1	26
C	0	17	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	7	0
B	4	0	20
C	0	24	0

GEH Comparison

	A	B	C
A	0	3	1
B	4	0	1
C	0	2	0

J4 - A453 / M1 J23A Access / Donnington

Junction Arm	
A	A453 (N)
B	M1 J23A Access
C	Donnington Services Access
D	A453 (W)

2022 Observed Flows (Heavies PM)

	A	B	C	D
A	0	35	26	24
B	71	0	27	18
C	12	15	0	1
D	19	14	4	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C	D
A	0	91	0	13
B	207	0	0	8
C	0	0	0	0
D	29	2	0	0

GEH Comparison

	A	B	C	D
A	0	7	7	3
B	12	0	7	3
C	5	5	0	1
D	2	4	3	0

J5 - A453 / Derby Road / M1 J24 / A50

Junction Arm	
A	M1 J24 (N)
B	A453 (N)
C	Derby Road
D	M1 J24 (S)
E	A453 (S)
F	A50
G	Hilton Hotel Lane

2022 Observed Flows (Heavies PM)

	A	B	C	D	E	F	G
A	0	50	15	0	22	22	0
B	16	0	1	36	24	26	0
C	0	1	0	1	2	6	0
D	0	39	9	0	1	111	0
E	14	14	1	7	0	73	0
F						0	
G	0	0	0	0	0	0	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C	D	E	F	G
A	0	54	0	0	167	0	1
B	4	0	0	65	52	52	0
C	0	0	0	0	0	0	0
D	0	45	0	0	0	48	1
E	121	70	0	0	0	162	1
F	0	0	0	0	0	0	0
G	0	0	0	1	1	0	0

GEH Comparison

	A	B	C	D	E	F	G
A	0	1	5	0	15	7	1
B	4	0	1	4	5	4	0
C	0	1	0	1	2	3	0
D	0	1	4	0	1	7	1
E	13	9	1	4	0	8	1
F	0	0	0	0	0	0	0
G	0	0	0	1	1	0	0

J6 - A453 / Northon Arm

Junction Arm	
A	Northern Arm
B	A453 (E)
C	A453 (W)

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	9	7
B	13	0	11
C	12	6	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	0	10
B	0	0	14
C	17	4	0

GEH Comparison

	A	B	C
A	0	4	1
B	5	0	1
C	1	1	0

J7 - A453 / The Green

Junction Arm	
A	A453 (E)
B	The Green
C	A453 (W)

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	0	24
B	0	0	0
C	15	0	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	0	17
B	0	0	0
C	10	0	0

GEH Comparison

	A	B	C
A	0	0	2
B	0	0	0
C	1	0	0

J8 - A453 / Grimes Gate

Junction Arm	
A	A453 (E)
B	Grimes Gate
C	A453 (W)

2022 Observed Flows (Heavies PM)

	A	B	C
A	0	2	24
B	0	0	0
C	15	0	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C
A	0	0	17
B	0	0	0
C	10	0	0

GEH Comparison

	A	B	C
A	0	2	2
B	0	0	0
C	1	0	0

J9 - A453 / A6 Kegworth Bypass / Wilders Way

Junction Arm	
A	A453 (N)
B	A6 Kegworth Bypass
C	A453 (S)
D	Wilders Way

2022 Observed Flows (Heavies PM)

	A	B	C	D
A	0	5	30	14
B	5	0	6	8
C	54	4	0	28
D	19	2	26	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C	D
A	0	27	14	176
B	46	0	1	46
C	26	13	0	192
D	420	118	114	0

GEH Comparison

	A	B	C	D
A	0	6	3	17
B	8	0	3	7
C	4	3	0	16
D	27	15	11	0

J10 - M1 J23 Slip Road / A512 / Ashby Road East

Junction Arm	
A	M1 J23 Slip Road (N)
B	A512
C	M1 J23 Slip Road (S)
D	Ashby Road (E)

2022 Observed Flows (Heavies PM)

	A	B	C	D
A	0	7	0	16
B	11	0	5	12
C	0	9	0	23
D	7	8	2	0

2022 Saturn Actual Flows (Heavies PM)

	A	B	C	D
A	0	5	0	17
B	9	0	0	26
C	0	3	0	5
D	16	22	4	0

GEH Comparison

	A	B	C	D
A	0	1	0	0
B	1	0	3	3
C	0	2	0	5
D	3	4	1	0

APPENDIX 3: Walking, Cycling and Horse-Riding Assessment and Review Assessment Report (document reference EMG2-BWB-GEN-XX-RP-TR-0005_S2-P6)

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TRANSPORT & INFRASTRUCTURE PLANNING

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EAST MIDLANDS GATEWAY 2 (EMG2)
North West Leicestershire
Walking, Cycling & Horse-riding Assessment Report

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CONTENTS

1. INTRODUCTION 1
Background and scope of assessment 1
Proposed Highway Scheme 1
Scope and Study Area 5
2. WALKING, CYCLING AND HORSE RIDING ASSESSMENT 7
Introduction 7
Review of Walking, Cycling and Horse Riding Policies and Strategies 7
Personal Injury Collision Data 7
Multi-modal transport services and interchange information 12
Key trip generators and local amenities 15
Site Visit 16
Liaison with key stakeholders 17
Existing walking, cycling and horse-riding facilities 18
3. USER OPPORTUNITIES 32
4. WALKING, CYCLING AND HORSE RIDING ASSESSMENT TEAM 34

FIGURES

Figure 1: Illustrative Masterplan EMG2
Figure 2: Components of the Proposed Development
Figure 3: Illustrative Masterplan EMG1
Figure 4: 5km Study Area
Figure 5: Personal Injury Collisions (2019 – 2024)
Figure 6: Non-Covid Period Personal Injury Collisions
Figure 7: Existing Bus Routes
Figure 8: Existing Bus Services
Figure 9: Bus Stop and Interchange Facilities EMG1
Figure 10: Trip Generators and Amenities
Figure 11: Site Visit Study Area
Figure 12: Footway / Cycleway and PROWs
Figure 13: Active Travel Infrastructure Context
Figure 14: Active Travel Infrastructure Wider Context
Figure 15: Cycle Routes
Figure 16: Survey Area
Figure 17: Link 1 - A453 Link (Between the Airport and Hunter Road Junctions)
Figure 18: Link 2 - Finger Farm Roundabout (A453 crossing)
Figure 19: Link 3 – East Midlands Gateway Phase 1 Signal Junction
Figure 20: Link 4 – Hyam's Lane
Figure 21: Link 3 – East Midlands Gateway Phase 1 signal junction– cyclist movements within carriageway
Figure 22: Link 2 – Finger Farm Roundabout - cyclist movements within carriageway
Figure 23: Link 5 Surveys along Footway at M1 Junction 24

TABLES

Table 1: Number of Personal Injury Collisions by year (2019 to 2024)
Table 2: Number of Personal Injury Collisions by year for non-Covid Period
Table 3: Existing Bus Services Routes and Frequencies
Table 4: Pedestrian Link 1 – Site 1 A453 Link (Wednesday 23rd November 2022)
Table 5: Pedestrian Link 1 - Site 1 A453 Link (Saturday 26th of November)
Table 6: Pedestrian Link 2 - Finger Farm Roundabout (Wednesday 23rd November 2022)
Table 7: Pedestrian Link 2 Finger Farm Roundabout (Saturday 26th November 2022)
Table 8: Site 3A East Midlands Gateway Crossing A453 (Wednesday 23rd November 2022)
Table 9: Pedestrian Link 3A - East Midlands Gateway Crossing A453 (Saturday 26th November 2022)
Table 10: Site 3B East Midlands Gateway Crossing A6 Kegworth Bypass (Wednesday 23rd November 2022)
Table 11: Pedestrian Link 3B - East Midlands Gateway Crossing A6 Kegworth Bypass (Saturday 26th November 2022)
Table 12: Pedestrian Link 4 Hyams Lane (Wednesday 23rd November 2022)
Table 13: Pedestrian Link 4 Hyams Lane (Saturday 26th November 2022)
Table 14: Location 1 – Thursday 30th January 2025
Table 15: Location 1 – Saturday 1st February 2025
Table 16: Pedestrian Link 2 Kegworth Interchange M1 J24 (Thursday 30th January 2025)
Table 17: Pedestrian Link 2 Kegworth Interchange M1 J24 (Saturday 1st February 2025)

Table 18: Pedestrian Link 3 Kegworth Interchange M1 J24 (Thursday 30th January 2025)
Table 19: Pedestrian Link 3 Kegworth Interchange M1 J24 (Saturday 1st February 2025)
Table 20: Identified user opportunities
Table 21: Walking, Cycling and Horse Riding Lead Assessor
Table 22: Walking, Cycling and Horse Riding Assessor
Table 23: Design Team Leader

APPENDICES

APPENDIX 1: Illustrative Masterplans and Components of the Proposed Development
APPENDIX 2: Personal Injury Collision Data
APPENDIX 3: NMU Survey Data
APPENDIX 4: Traffic Survey Data

1. INTRODUCTION

Background and scope of assessment

1.1 This report has been produced in accordance with the requirements of DMRB GG 142 Walking, Cycling and Horse-Riding Assessment Review (WCHAR) to inform the design of the proposed site and highway improvement works proposed as part of the proposed Phase 2 expansion of the East Midlands Gateway (EMG) site largely located to the south of the A453 and East Midlands Airport in Leicestershire. The purpose of GG 142 is to facilitate the inclusion of all walking, cycling & horse-riding modes in the scheme design process from the earliest stage, enabling the design team to identify opportunities for improved facilities and integration with the local and national network(s) throughout the design process.

1.2 The purpose of this report is to provide an assessment of the existing facilities and provision for pedestrians, cyclists and equestrians that will help inform decision making throughout the design process. It provides an update to the report produced in February 2023 and now covers all the area of the East Midlands Gateway 2 (EMG2) main site, the highway works and East Midlands Gateway 1 (EMG1) works.

1.3 In accordance GG 142, the scale of the highway works has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' Scheme, for the purpose of this assessment.

1.4 Where appropriate, opportunities for improvements have been identified which will be considered through the design process, and re-visited during the GG 142 process, through the production of the Review Reports at the appropriate stages.

Proposed Highway Scheme

EMG2 Main Site, Highway Works and EMG1 Works

1.5 The EMG2 Scheme forms a second phase of East Midlands Gateway, EMG2 is located to the south of the A453 and East Midlands Airport in Leicestershire (with the first East Midlands Gateway Scheme located north of the Airport)

1.6 EMG2 comprises the following components:

- EMG2 Main Site – a comprehensive multi-unit logistics and advanced manufacturing development located south of East Midlands Airport and the A453, and west of the M1 motorway;
- Highways Works – works to the highway network including significant improvements at Junction 24 of the M1 (referred to as J24 Improvements) and the road network interacting with that junction; and
- EMG1 Works – additional warehousing on Plot 16 together with works to increase the permitted height of the cranes at the rail-freight terminal, improvements to the public transport interchange and site management building.

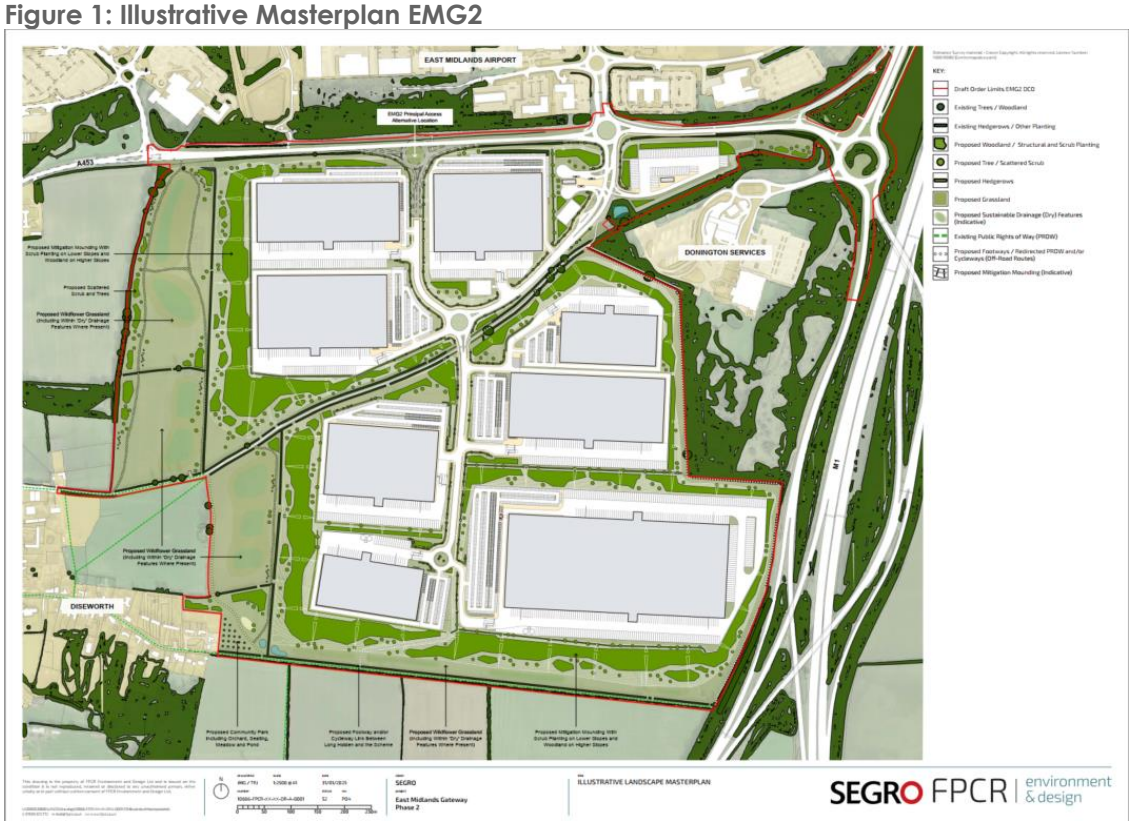
1.7 The following section provides more details on the proposals, focusing on the quantum of development, access to the EMG2 main site, sustainable and active travel improvements.

EMG2 Main Site

1.8 The illustrative masterplan for the EMG2 Main Site is shown in **Figure 1** and a copy is included at **Appendix 1**, In summary the EMG2 Main Site proposals include:

- A maximum of 300,000 sq.m. of employment floorspace (GIA) overall, with an additional allowance of 100,000 sq.m. in the form of internal mezzanines across the site. The development will primarily comprise logistics facilities (Use Class B8) with up to 20% of the floorspace capable of being used for general industrial uses (Use Class B2).
- Vehicular access would be from the A453 via a new arm off the Hunter Road roundabout (the EMG2 Access Works), with a possible alternative principal access (new roundabout) further to the west along the A453.
- Hyam's Lane is to be retained and its surface upgraded to provide enhanced pedestrian/cycle connectivity through the site.
- A bus interchange terminal at the site entrance which replicates and builds upon the successful sustainable travel strategy for the EMG1 site.

Figure 1: Illustrative Masterplan EMG2



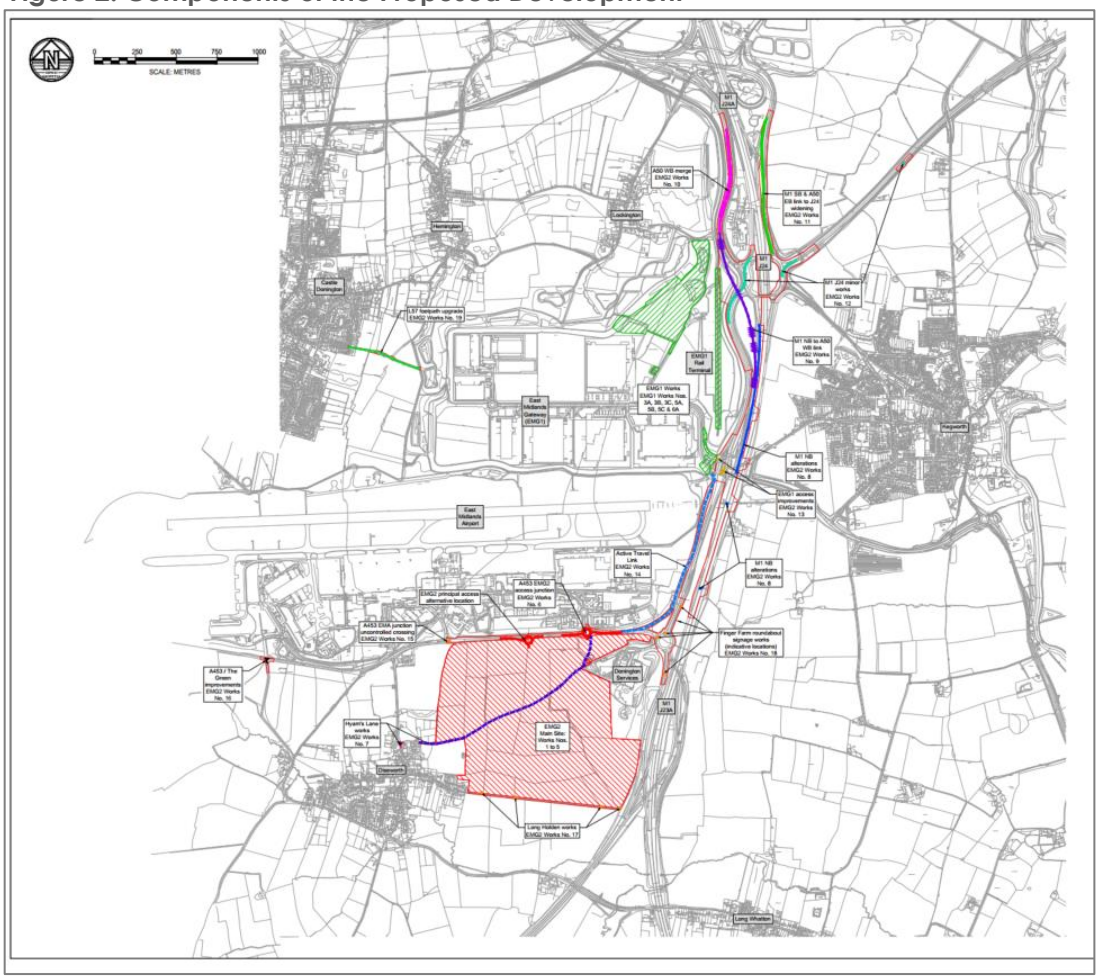
Highway Works

1.9 **Figure 2** shows a composite of the highway improvements associated with EMG1 and 2, this along with other relevant drawings are included at **Appendix 1**. A package of

highways works is proposed including site access, substantial improvements around J24 of the M1 as well as more minor works on the local highways network and pedestrian/cycle route enhancements. In additional to the EMG2 access junction (EMG2 Works No 6), these works will include:

- Junction 24 Improvements comprising:
    - M1 northbound to A50 westbound link (EMG2 Works No. 9), and will include the A50 westbound merge (EMG2 Works No. 10) alterations;
    - M1 southbound and A50 eastbound link to J24 widening (EMG2 Works No. 11)
    - M1 J24 minor works (EMG2 Works No.12
    - M1 northbound alterations (EMG2 Works No. 8)
- EMG1 Access Improvements (EMG2 Works No. 13)
- Active Travel works comprising:
    - Active Travel Link (EMG2 Works No. 14)
    - Hyam's Lane Works (EMG2 Works No. 7)
- A453/The Green Improvements (EMG2 Works No. 16)
- A453/East Midlands Airport (EMA) junction uncontrolled crossing (EMG2 Works No. 15).

Figure 2: Components of the Proposed Development



EMG1 Works

1.10 The illustrative masterplan for the EMG1 is shown in **Figure 3** and a copy also included at **Appendix 1.** In summary the EMG1 Works includes:

- the provision of a maximum of 26,500 sq.m (approximately 285,000 sq.ft) (GIA) of additional warehousing on Plot 16 which lies adjacent to the rail freight terminal, with an additional 3,500 sq.m allowance in the form of internal mezzanine space. In addition,
- the EMG1 Management Suite will be expanded and,
- enhancements to the Public Transport Interchange are proposed.

Figure 3: Illustrative Masterplan EMG1



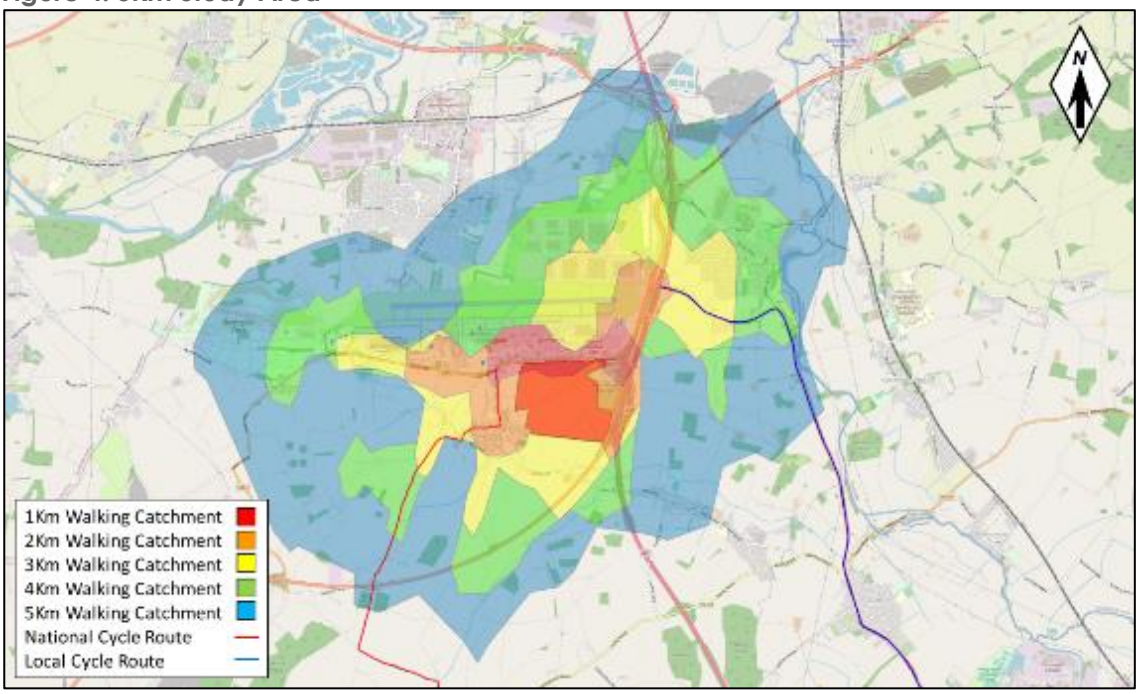
1.11 It is intended that the information within this WCHAR will help inform the design team as to the needs of, and issues faced by pedestrians, cyclists and equestrians as the Scheme progresses.

1.12 The process set out in this report is not influenced or constrained by the Scheme proposals – the information provided within it provides background information to assist the wider design team.

Scope and Study Area

1.13 **Figure 4** shows the broad study area for this WCHAR assessment. The assessment area has been set by the Lead Assessor and in line with the guidance contained in GG 142 has an approximate radius of 5km from the centre of the EMG2 Scheme. The study area covers the EMG1 and EMG2 sites, A453 and the surrounding areas and links to Diseworth and other areas in close proximity to the site.

Figure 4: 5km Study Area



2. WALKING, CYCLING AND HORSE RIDING ASSESSMENT

Introduction

2.1 This Chapter summarises the findings of the assessment set out in Section 4 of GG 142. The findings under each topic area are summarised in the subheadings below and any potential opportunities for improvements are summarised in Section 3 of this report.

Review of Walking, Cycling and Horse Riding Policies and Strategies

2.2 A variety of policies and strategies have been reviewed as part of this assessment, as detailed below:

- National Planning Policy Framework (Revised December 2024)
- Circular 01/2022 - The Strategic Road Network and the Delivery of Sustainable Development, Department for Transport
- Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision Making (2014)
- Moving the Nation (Bicycle Association, Cycling UK, the Ramblers, British Cycling, Living Streets and Sustrans June 2018)
- Cycling and Walking Investment Strategy (DfT 2017)
- Cycling and Walking Investment Strategy Review (DfT 2018)
- Gear Change – A bold vision for cycling and walking (DfT 2020)
- The Second Cycling and Walking Strategy Review (DfT 2022)
- Decarbonising Transport – Setting the Challenge (DfT 2020)
- Decarbonising Transport – A Better, Greener Britain
- Inclusive Mobility – A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (DfT 2021)
- Designing for Walking
- Planning and Cycling
- North West Leicestershire Local Plan
- North West Leicestershire Local Plan Substantive Review
- Leicestershire County Council Local Transport Plan
- North West Leicestershire Cycling Network Plan
- National Highways Cycling Strategy and Key Performance Indicators (KPIs)
- Cycle infrastructure design (LTN 1/20)

Personal Injury Collision Data

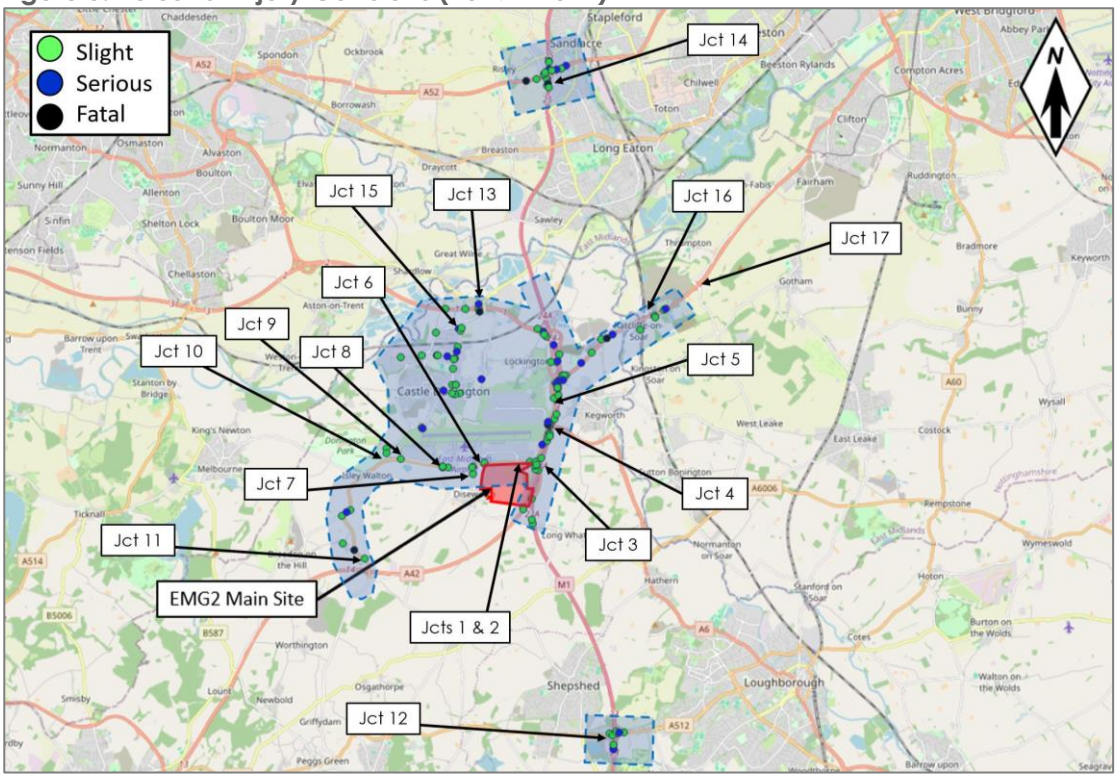
2.3 In line with paragraph 4.9 of GG 142, Personal Injury Collision (PIC) data for the latest available six-year period has been reviewed.

2.4 A broad analysis of the data was carried out, to identify any issues or trends that may affect pedestrians, cyclists, and equestrians.

2.5 **Figure 5** shows the study area of the highway network, which includes roads on both the Strategic Road Network and local road network. PIC data has been obtained for the latest six-year period between 1 January 2019 and 23 October 2024. A total of 175 PICs were recorded within the study area, of which 125 were classified as slight, 42 as serious and 8 as fatal.

2.6 A copy of the data is included within Highway Safety and Road Casualty Position Statement (document reference EMG2-BWB-GEN-XX-RP-TR-0015) included at **Appendix 2**.

Figure 5: Personal Injury Collisions (2019 – 2024)



2.7 **Table 1** summarises the number of PICs that have occurred for each year between 2019 and 2024.

Table 1: Number of Personal Injury Collisions by year (2019 to 2024)

	2019	2020	2021	2022	2023	2024
Slight	21	9	26	31	19	19
Serious	2	8	8	7	9	8
Fatal	0	2	0	0	3	3
Total	**23**	**19**	**34**	**38**	**31**	**30**

2.8 The details show that there has been a relatively consistent number of PICs during each of the years assessed, equating to 29 per annum on average. There was a slight

reduction in PICs during 2020 possibly due to the Covid-19 Pandemic and significant reductions in traffic flows and journeys during that time.

2.9 **Figure 5** shows that the following PICs have occurred at the study area junctions.

- Junctions 1 & 2, EMG2 Site frontage and A453/Hunter Road Roundabout - across the site frontage and at the A453/Hunter Road roundabout, the records confirm there have been no PICs within this location over the latest 6-year period.
- Junction 3, Finger Farm Roundabout - 11 PICs have been recorded over the latest 6-year period, 10 of which were classified as slight and one as serious, none of which involved vulnerable road users.
- Junction 4, A453/EMG1 access junction - there have been seven recorded PICs over the latest 6-year period. Of the seven recorded PICs, four were classified as slight, two were classified as serious and one was classified as fatal, none of which involved vulnerable road users.
- Junction 5, M1 Junctions 24 and 24A - there have been 22 recorded PICs over the latest 6-year period. Of these, 16 were classified as slight and 6 were classified as serious, with no fatal collisions. One serious PIC involved a motorcycle, which occurred in October 2023, when weather conditions were described as fine / dry. The proposed Scheme is proposing significant improvements at junction 24 which have the potential to improve safety for all road users.
- Junction 6, A453/East Midlands Airport Signal Junction - there have been three recorded PICs over the latest 6-year period. Two of the PICs were classified as slight and the remaining PIC was classified as fatal, fatal, none of which involved vulnerable road users.
- Junction 7, A453/Grimes Gate Priority Junction - there have been two recorded PICs over the latest 6-year period. Both the PICs were classified as slight, one of which involved a motorcycle. This occurred in May 2023, weather conditions were described as fine / dry. It is concluded that there are no significant highway issues at the junction.
- Junction 8, A453/The Green Priority Junction - there have been four recorded PICs over the latest 6-year period. All the four PICs were classified as slight, none of which involved vulnerable road users.
- Junction 9, A453/East Midlands Airport Roundabout - there has been a single recorded PIC over the latest 6-year period, which was classified as slight and did not involve vulnerable road users.
- Junction 10, A453/Walton Hill Signal Junction (Leicestershire) - there have been two recorded PICs over the latest 6-year period both of which were classified as slight, neither of which involved vulnerable road users.
- Junction 11, A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout - there have been three recorded PICs over the latest 6-year period with two PICs being slight and one as fatal in severity, none of which involved vulnerable road users.
- Junction 12, M1 Junction 23 - there have been nine recorded PICs over the latest 6-year period, seven of which were classified as slight and the remaining two as serious, none of which involved vulnerable road users.

- Junction 13, A50 Junction 1 - there have been five recorded PICs over the latest 6-year period, three of which were classified as slight, one as serious and one as fatal, none of which involved vulnerable road users.
- Junction 14, M1 Junction 25 - there have been 18 recorded PICs over the latest 6-year period, 12 of which were classified as slight, four were classified as serious and two fatal. One of the fatal PICs, which occurred in April 2023, when weather conditions were described as raining and wet, involved a pedestrian walking on the slip road during hours of darkness. Both fatal PICs appear to be isolated incidents and not related to any physical defects of the junction.
- Junction 15, Station Road/Broad Rushes Roundabout - there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one as serious. The PIC recorded as serious occurred in June 2020 and involved a pedal cyclist, weather conditions were recorded as fine / dry. The two PICs recorded as slight occurring in August 2021 and September 2022 both involved motorcycles. Weather conditions were recorded as other / dry and wet / damp respectively. It is concluded however that, there are no trends and these PICs were due to overtaking, and movements on the circulatory.
- Junction 16, A453/Kegworth Road dumbbell Roundabouts - there have been five recorded PICs over the latest 6-year period, four of which were classified as slight and one as serious, none of which involve vulnerable road users.
- Junction 17, A453/Barton Lane/West Leake dumbbell Roundabouts - there have been no recorded PICs at this junction over the latest six-year period.

2.10 In addition to the above the following links were also analysed:

- M1 Mainline between Junctions 23A and 24 - there have been five recorded PICs over the latest 6-year period, all of which were classified as slight, none of which involved vulnerable road users.
- A453/Moor Lane – there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one serious, none of which involved vulnerable road users.
- A453 Remembrance Way - there has been one fatal PIC recorded approximately 1.5km to the east of M1 Junction 24 and did not involve any vulnerable road users.

2.11 Analysis of the data has revealed that the road conditions were a mixture of wet and dry during the PICs. Additionally, of the PICs occurring within the study area, the majority were at the Finger Farm roundabout and M1 J24. Most PICs are determined to be shunts, head-on and side-swipe collisions.

2.12 The data gives no evidence of equestrian involvement, with a single PIC involving a pedestrian, which was recorded as fatal and occurred in the early hours (04:42 hours) on the 28 April 2023 on the M1 northbound off-slip. A single PIC involving a cyclist was also recorded on the 23 June 2020 at the Station Road/Broad Rushes roundabout in Castle Donington, this was recorded as serious. The data does not suggest that there are any specific safety concerns for such users.

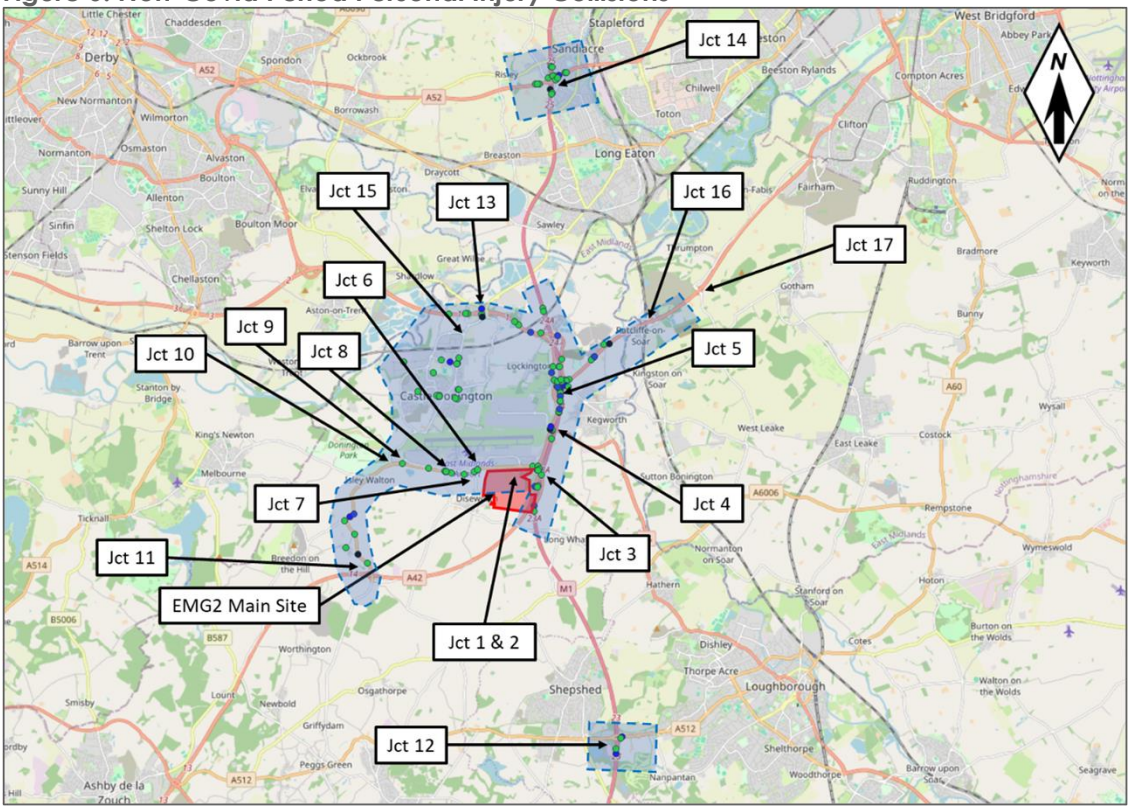
2.13 Due to the Covid restrictions a sensitivity test review has been undertaken for collisions occurring within 2017 and 2018 within the same study area (using data from the online Crashmap database) and removing the main Covid period years of 2020 - 2021. This is

summarised in **Table 2** and illustrated in **Figure 6**. A total of 187 PICs were recorded within the study area, of which 142 were classified as slight, 39 as serious and 6 as fatal.

Table 2: Number of Personal Injury Collisions by year for non-Covid Period

	2017	2018	2019	2022	2023	2024
Slight	23	29	21	31	19	19
Serious	7	6	2	7	9	8
Fatal	0	0	0	0	3	3
Total	**30**	**35**	**23**	**38**	**31**	**30**

Figure 6: Non-Covid Period Personal Injury Collisions



2.14 As shown above, the number of PICs that occurred during 2017 and 2018 is broadly similar to each year of the 5 year period shown in **Table 1**, with the exception of 2020 which is slightly lower (which is likely to be due to Covid). It is also noted the PICs in **Table 2** for the 2017 and 2018 years included:

- 2 pedestrian collisions (both slight), one on Park Lane in central Castle Donington and the other at junction 23 of the M1; and
- 2 pedal cycle collisions (both slight) one on the A453 south of the DHL aviation unit and one on Park Lane in central Castle Donington.

2.15 When comparing the non-Covid 6-year period with the most recently available 6-year period (as above), this demonstrates that there are no significant differences between the number/frequency of collisions between the two datasets. There is a slight reduction in the number of collisions in the non-Covid assessment at all of the junctions except for Junction 8 - A453/The Green Priority Junction, which has increased by two to six collisions with 4 slight and 2 serious.

Multi-modal transport services and interchange information

Bus Services

2.16 There are four existing bus services which pass by the site, the skylink Express, skylink Nottingham, skylink Derby and Airway 9. These services provide bus connectivity between key cities such as Nottingham, Derby and Leicester, EMA and EMG1. It is the intention for these services to call at the EMG2 Main Site bus interchange from first occupation. Discussions with the local bus operator, trentbarton, have already begun to ensure this comes to fruition.

2.17 In addition, there are further stops within the western part of East Midlands Airport approximately 850 metres from the EMG2 main site which are served by an additional route (My15).

2.18 **Table 3** provides a summary of the existing bus services close to the Scheme.

Table 3: Existing Bus Services Routes and Frequencies

Service	Route	Frequency
skylink Derby	Leicester – Loughborough - Kegworth – EMG – EMA1 – Castle Donington - Derby	4 buses per hour
skylink Express	Nottingham - Clifton - non-stop to EMG1	2 buses per hour
skylink Nottingham	Nottingham - Long Eaton - Castle Donington – EMA – EMG1	3 buses per hour (2 buses per hour at EMG)
	EMA – Diseworth – Long Whatton - Coalville	1 bus per hour
	EMG1 - Loughborough	1 bus per hour (at Loughborough, 08:00 – 19:00)
Airway 9	Horninglow – Burton – Ashby – Melbourne – EMA – EMG1	1 bus per hour
My15	Ilkeston – Stapleford – Old Sawley – Castle Donington - EMA	2 buses per hour

2.19 The above bus services travel to various settlements in the vicinity of the site, including Nottingham, Ilkeston, Stapleford, Long Eaton, Leicester, Loughborough, Coalville, Ashby-de-la-Zouch, Swadlincote, Burton-upon-Trent and Derby.

2.20 **Figure 7** illustrates the routes of the services described in **Table 3**, with **Figure 8** illustrating the routes of the services in relation to the Scheme.

Figure 7: Existing Bus Routes

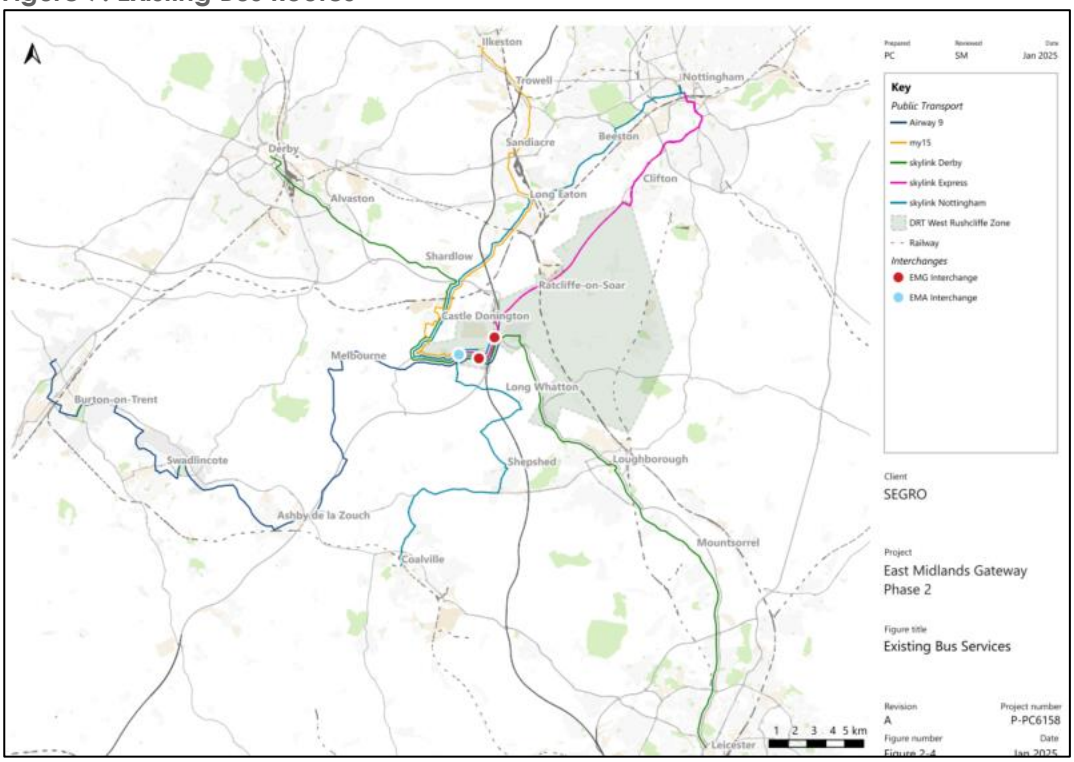
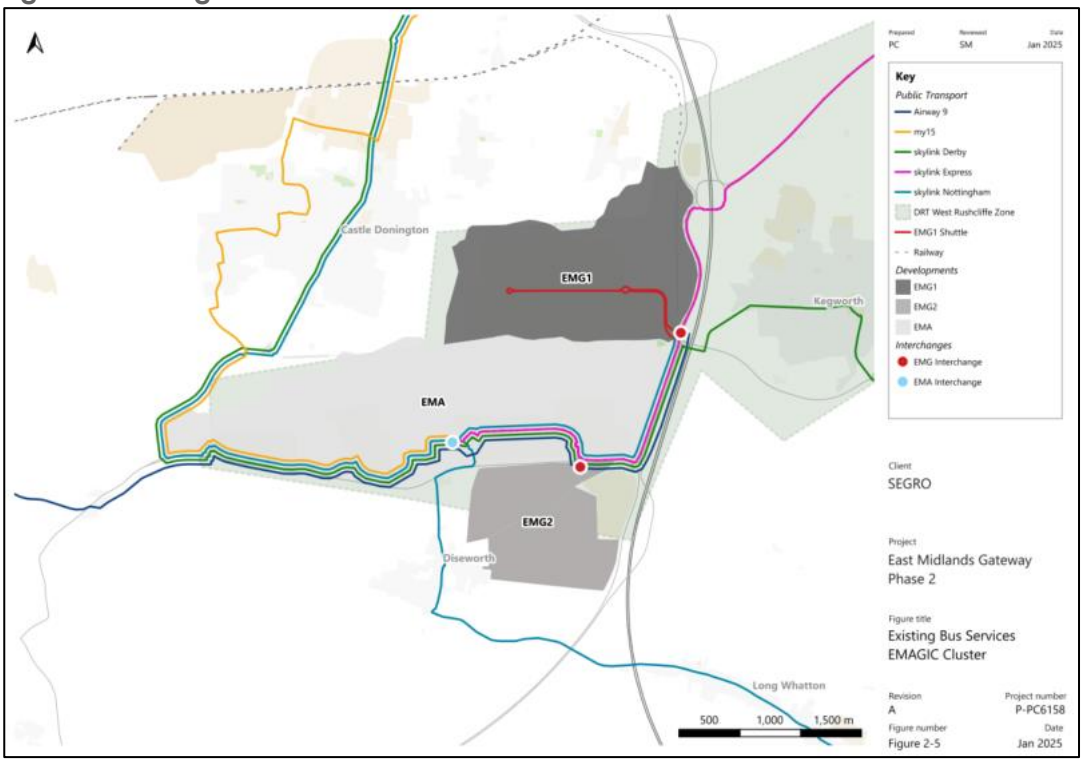


Figure 8: Existing Bus Services



2.21 The nearest current transport interchange to the EMG2 main site is located within the EMA Interchange, as indicated in **Figure 8.** Facilities include real-time bus information and seating.

2.22 In addition, to the above there is also a bus interchange within EMG1, this transport hub provides access to the free on-site shuttle service. The shuttle operates on a loop from the interchange and calling at each unit along the EMG1 estate road. A covered bus shelter is provided outside of each unit.

2.23 A purpose built bus interchange will be provided within the northeast part of the EMG2 main site accessed via the A453/Hunter Road roundabout, which is close to the proposed access from the existing roundabout on the A453 and Pegasus Business Park as shown in **Figure 7**. The location of the EMG2 Main Site bus interchange has been determined following discussions with key local bus operators (trentbarton) and Highway Development Management officers from the local highway authority. The location of this interchange allows for the interception of existing bus services travelling both along the A453 and via Pegasus Park.

2.24 The EMG2 Main Site bus interchange will act as the hub for a new EMG2 Gateway Shuttle service. The shuttle will connect employees arriving commercial bus services at the EMG2 Main Site bus interchange to their workplace. The hours of operation for the shuttle service will align with the occupier's shifts. Initially this is likely to be focused on the morning and afternoon shift changeover, however as the site is built out this will be extended to meet demand. During its hours of operation, the shuttle will operate on a continuous loop between the EMG2 Main Site bus interchange and the bus stops along the estate road, providing a 'turn up and go' service for employees on-site. Provision will be made for EV bus charging points at the interchange and at EMG1 through expanding the facilities there, to facilitate the use of an electric vehicle for the shuttle service.

2.25 The EMG2 Main Site bus interchange building will be equipped with real-time bus information, seating, lighting, heating, and toilets, to create a safe and comfortable waiting area for employees. This is similar to the provision of the EMG1 interchange. **Figure 9** shows the Bus Interchange at EMG1 and an EMG1 Bus stop,

Figure 9: Bus Stop and Interchange Facilities EMG1



Rail Services

2.26 The East Midlands Parkway Railway Station is located approximately 5.5 kilometres from the site to the west of the Ratcliffe on Soar Power Station on the section of the A453 to the east of M1 Junction 24 towards Nottingham. It lies on the East Midlands Railway line, which links London St Pancras with the East Midlands (Nottingham, Leicester, Lincoln, Derby) and Sheffield in South Yorkshire. East Midlands Parkway is served by three train lines, the East Midlands Railway Intercity, which travels between London St Pancras and

Sheffield (via Leicester) or London St Pancras and Nottingham (with limited services continuing to Lincoln). Generally, the above services operate at a combined frequency of one train every 10 minutes in any given direction.

Key trip generators and local amenities

2.27 In line with paragraph 4.12 of GG 142 the assessment includes an analysis of local trip generators and amenities in the WCHAR study area to identify likely desire lines for pedestrians, cyclists and equestrians.

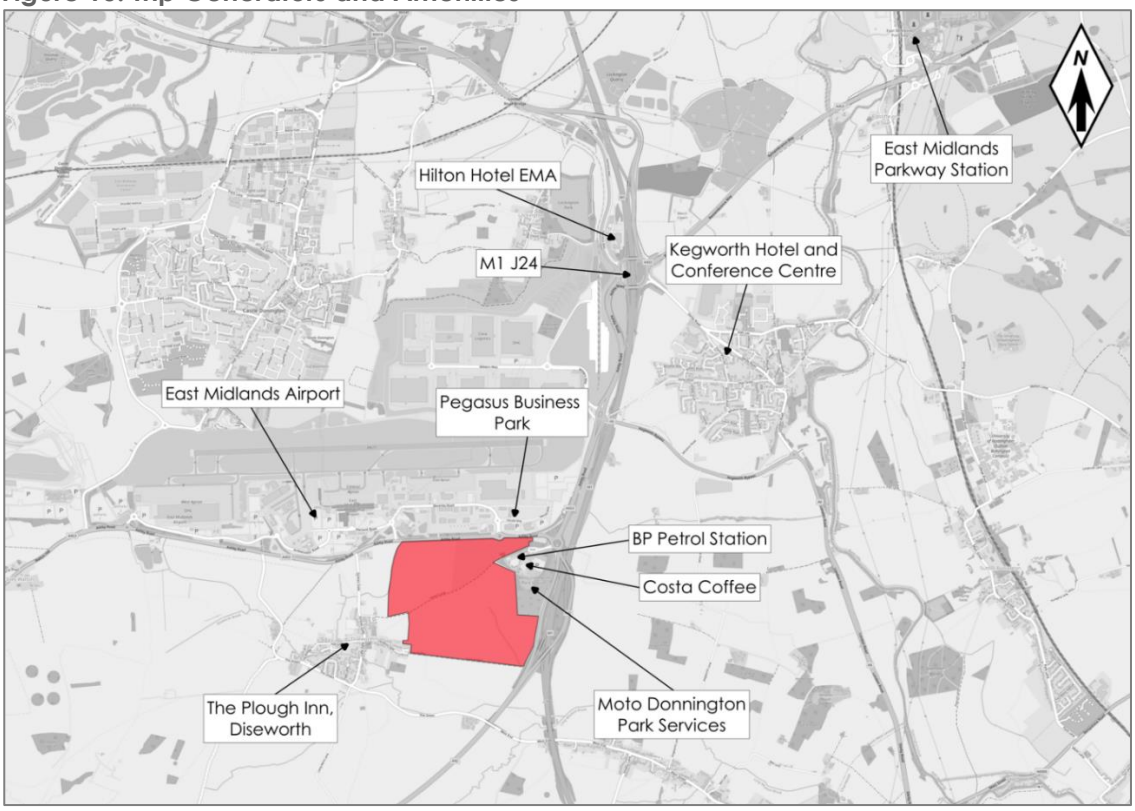
Existing Key Trip Generators

2.28 There are a variety of trip generators in the study area that could generate pedestrian, cyclist and/or equestrian trips, including:

- Pegasus Business Park
- Moto Donington Park Motorway Service Area (MSA) – which includes a BP petrol station and Costa Coffee
- East Midlands Airport
- Diseworth, including The Plough Inn
- Hilton Hotel East Midlands Airport
- Kegworth, including the Hotel and Conference Centre and other local amenities
- East Midlands Parkway Station

2.29 The locations of these trip generators in relation to the proposed Scheme are included in **Figure 10**.

Figure 10: Trip Generators and Amenities



Future Trip Generators

2.30 It is considered that the following key developments may generate pedestrian and cycle trips within the same part of the network as the EMG2 site. These are referred to as:

- EM Point near Finger Farm (22/01116/FULM)- three proposed industrial units with a combined floor area of 3,846 sqm – modal split information was not included within the Transport Assessment, but a development of this size would generate minimal pedestrian and cycle trips if ultimately built out.
- Land south of A50 J1 (19/01496/OUTM) - 92,500 sqm of development land for employment (B1 / B2 / B8) use) – the Transport Assessment shows that the development would potentially generate 223 daily pedestrian trips in the (including bus and train trips) 43 daily cycle trips. In the peak periods a maximum of 20 pedestrian trips
- The Isley Woodhouse new sustainable settlement located to the south of East Midlands Airport and Donington Park for which a planning application is expected during 2025.

Site Visit

2.31 In line with Paragraph 4.12 of GG 142, a site visit was conducted on 6 September 2022 between 10:00 and 12:00 hours when the weather conditions were dry to consider any weekday leisure trips. The site visit consisted of walking along the site frontage on the A453 and along Hyams Lane between Diseworth village and the Moto Donington MSA. **Figure 11** shows the study area. In addition, a drive by up to EMG1 was also undertaken.

2.32 The primary findings of the site visit were:

- A footway exists along the northern side of the A453 between the signal controlled junction to East Midlands Airport and Finger Farm roundabout.
- There is an existing uncontrolled crossing across the A453 at Finger Farm which connects to a footway along the eastern side of the carriageway up to EMG1 where various signal-controlled crossings exist leading into EMG1 itself and Kegworth village.
- Hyams Lane comprises a public footpath and is an informal track that extends from Diseworth to the Moto Donington Services. Hyams Lane also provides a pedestrian connection onto the A453 in between the A453/Hunter Road and Finger Farm roundabouts. During the site visit no pedestrians were observed using the footpath and because of overgrown vegetation at its eastern end close to the service station, it appeared to be lightly used.

Figure 11: Site Visit Study Area



2.33 In addition, to the above the following site visits have also been carried out:

- EMG2 Site visit Hyam's Lane, Moto services area and footpath L45: 7th May 2024 between 1300 and 1500 hours; and
- EMG1 site visit, 9th July 2024 at a similar time, but purposefully aligned with some of the shift changeovers.

Liaison with key stakeholders

2.34 A Transport Working Group (TWG) has been established to oversee the transport and highway matters associated with the Scheme.

2.35 Regular, typically monthly Transport Working Group meetings have taken place with key highway authorities since April 2022. This includes National Highways (NH), Leicestershire

County Council (LCountyC), Leicester City Council (LCityC), Nottinghamshire County Council (NCountyC), Nottingham City Council (NCityC), Derbyshire County Council (DCountyC), Derby City Council (DCityC) and NH representatives from Jacobs, and ITP (Travel Planners).

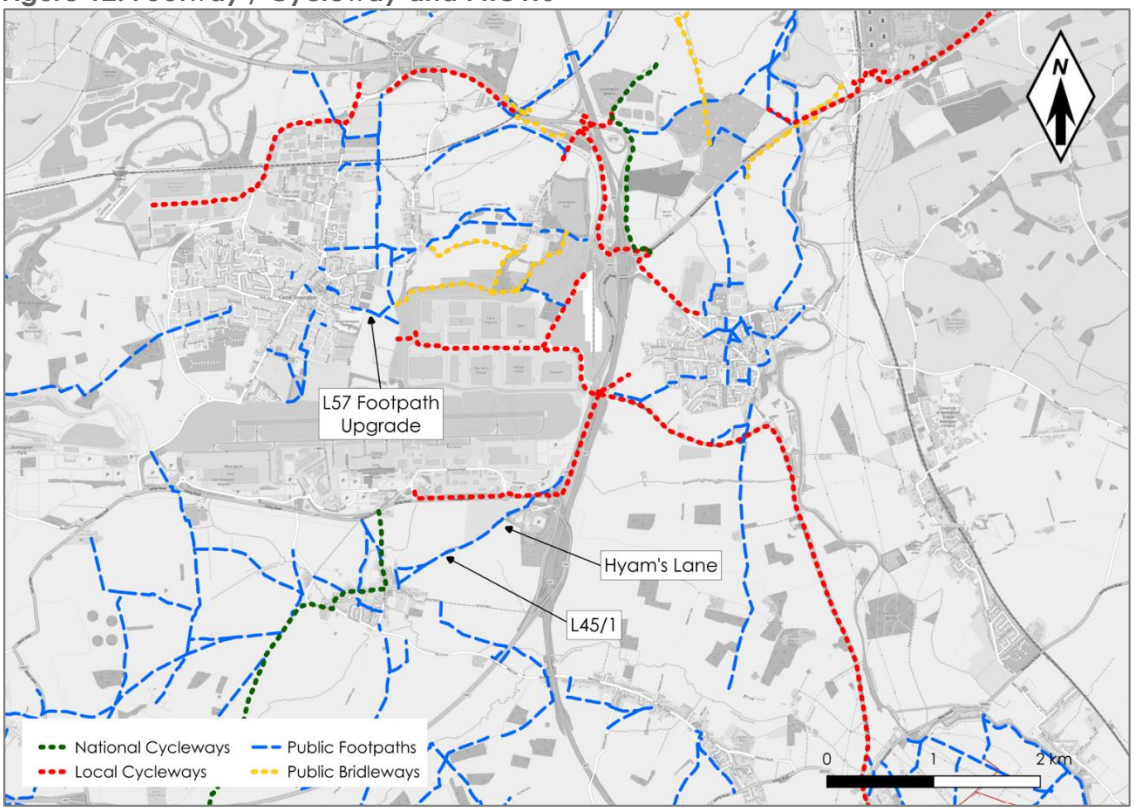
2.36 This has included agenda items on sustainable travel improvements including access designs, pedestrian/cycle infrastructure improvements and bus interchange/shuttle service. This includes the improvements to Hyams Lane (low level lighting, better surfacing etc and discussions on improvements to Long Holden (footpath to south of site) and providing a connection to Long Whatton.

Existing walking, cycling and horse-riding facilities

2.37 In line with paragraph 4.15 of GG 142, an assessment of existing walking, cycling and equestrian links has been undertaken. The assessment includes the current condition and effectiveness of those facilities deemed to be relevant to the highway Scheme. It also provides detail as to how they link into the County and Strategic Road Networks.

2.38 **Figure 12** shows the locations of all Public Rights of Way in the vicinity of the site including the alignment of Hyam's Lane which bisects the site. This link extends into Diseworth to the west of the site where it connects to an existing footway on Grimes Gate within Diseworth village.

Figure 12: Footway / Cycleway and PROWs



2.39 As part of the package of improvements associated with EMG2 Main Site, there will be multiple pedestrian and cyclist access points. Consideration has also been given to

ensuring the EMG2 Main Site connects with EMG1, EMA and residential areas surrounding the development. These access points are described below:

- A new shared use footway/cycleway along the length of the EMG2 Main Site estate road providing pedestrian and cyclist access to each employment unit and ensuring they are separated from the vehicle and HGV traffic.
- The existing Public Right of Way (PRoW) (L45) which bisects the EMG2 Main Site with a north-east to south-west alignment, and currently follows the southern boundary of Hyam's Lane, will become integrated into Hyam's Lane. This will be surfaced as part of the works to improve cyclist access. This route provides connectivity towards Kegworth and EMG1 to the north-east and Diseworth to the south-west.
- A new Toucan crossing point will be installed for pedestrians and cyclists to safely cross the A453 to/from the EMG2 Main Site, unlocking connections to EMG1, Kegworth and beyond.
- A new shared use cycle track from the EMG2 Main Site bus interchange to the proposed A453 toucan crossing.
- A new dedicated shared use cycle track north of the new toucan crossing alongside the A453 will connect the EMG2 Main Site to EMG1 for pedestrians and cyclists and provide an improved route for cyclists in the wider area such as between Kegworth and EMA.

2.40 Wider improvements to Public Rights of Way in the area surrounding the Scheme, include:

- A new footpath from the western end of Hyam's Lane and PRoW L45/L46 northwards through the proposed community park connecting to the A453 Ashby Road by the Airport entrance junction via the western edge of the EMG2 Main Site. Currently there is no off-road pedestrian access for this route;
- A new footpath from the western end of Hyam's Lane and PRoW L45/46 southwards through the proposed community park connecting to Long Holden and PRoW L48 via the western edge of the EMG2 Main Site, connecting these two PRoWs and creating a valuable new publicly accessible route all the way from PRoW L48 to the airport via an uncontrolled crossing of the A453 at the Airport access junction;
- A new footpath from the eastern end of Hyam's Lane, and PRoW L45 southwards connecting to Long Holden via the eastern edge of the EMG2 Main Site, creating a further valuable new publicly accessible route and a circular walk around the southern part of the EMG2 Main Site; and
- In addition to the active travel improvements to/from the EMG2 Main Site, proposals within the DCO boundary also include surfacing the L57 PRoW which connects Diseworth Lane, to the west of EMG1 and Castle Donington, for improved connectivity for cyclists to link Castle Donington to both EMG1 and EMG2.

2.41 **Figures 13** and **14** provide details of the above improvements.

Figure 13: Active Travel Infrastructure Context

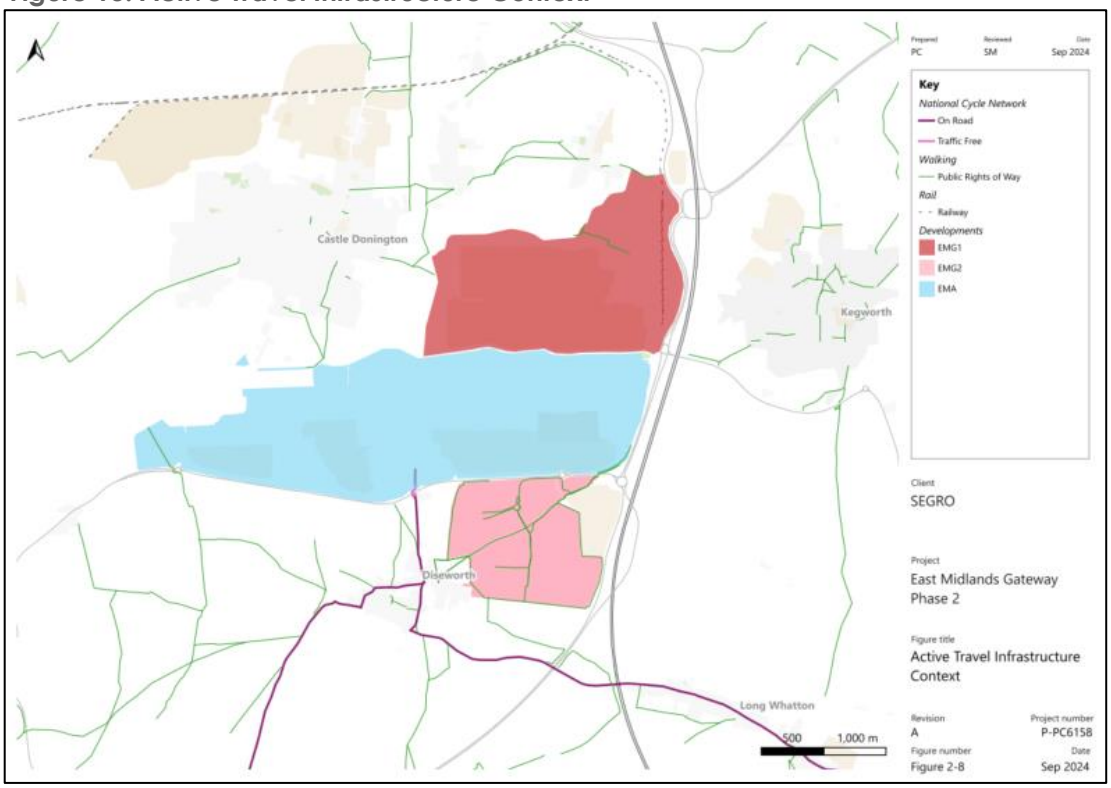
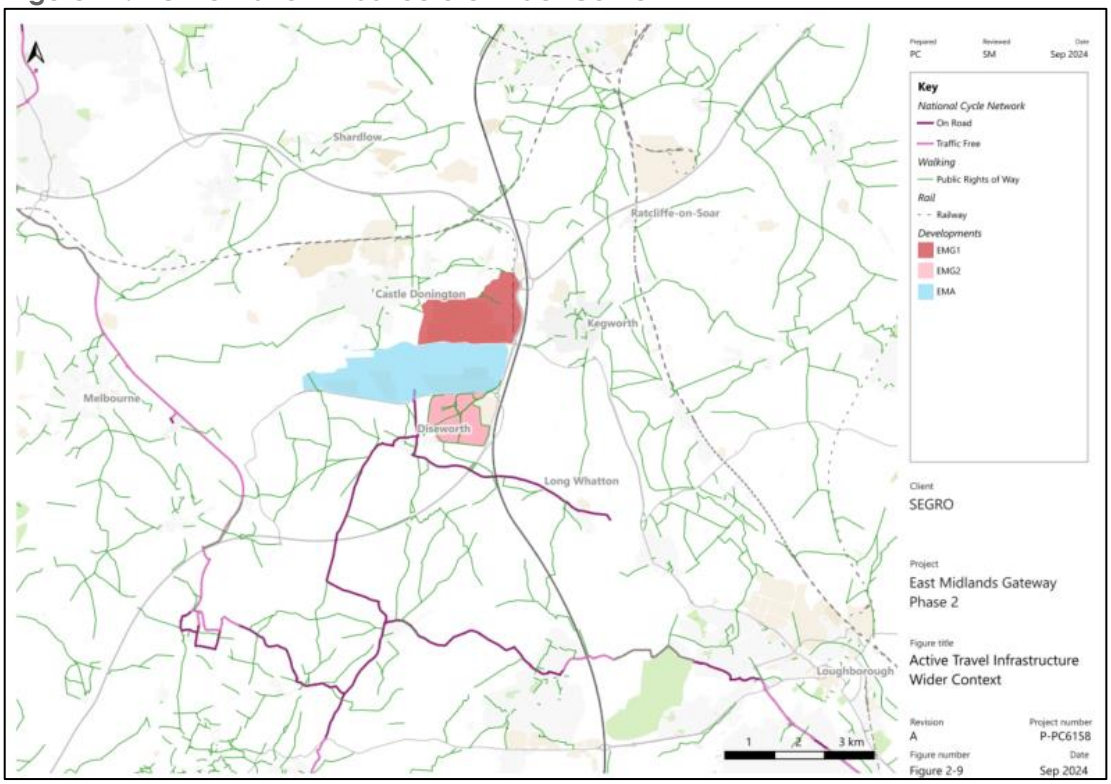


Figure 14: Active Travel Infrastructure Wider Context

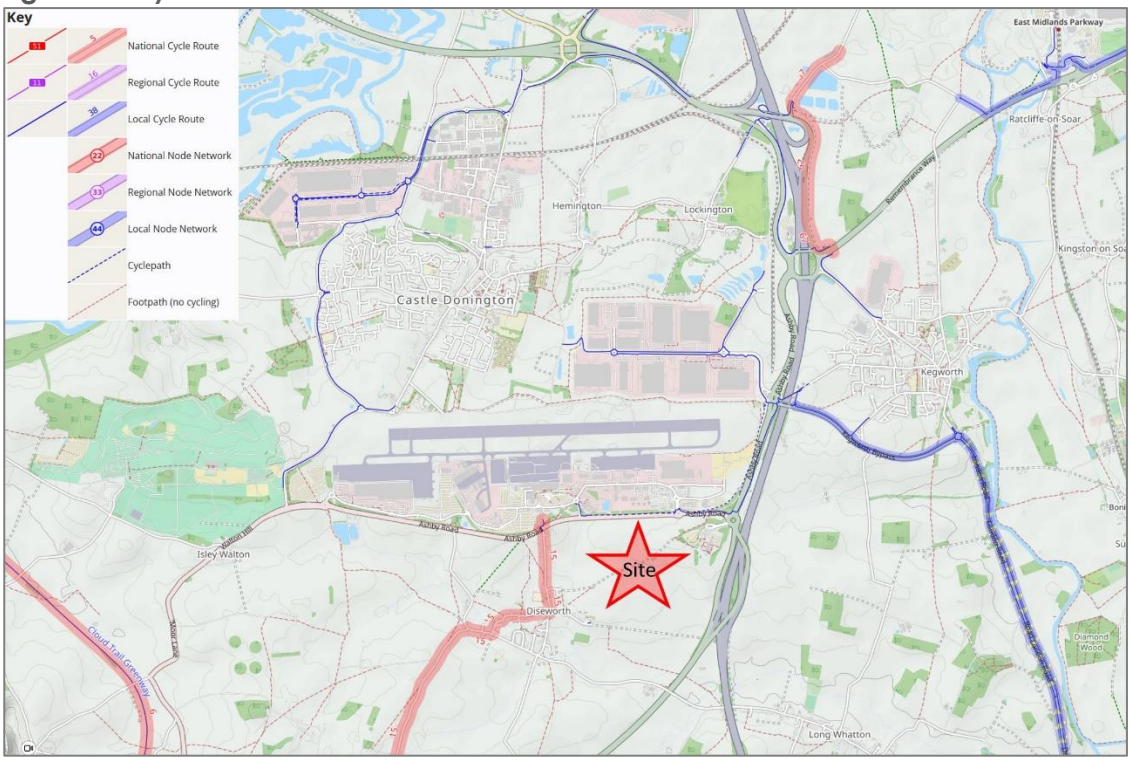


Cyclist Facilities

2.42 **Figure 15** shows the local cycle routes and the National Cycle Network, which includes a cycle link along the A453 between the site frontage and EMG1/Kegworth. It also shows how this link connects to roads recommended for cycling (quieter routes) which are predominantly on-road routes that extend to villages further afield. It also shows the start of Route 15 of the National Cycle Network which commences on Grimes Gate to the south of the A453 and extends south through and out past Diseworth village. Furthermore, a shared cycle/footway routes from the Willow Farm Business Park, Trent Lane Industrial Estate and East Midlands Distribution Centre to the A453 (circa 2km west of the EMG2 site) via the western side of Castle Donington.

2.43 Further afield, Route 15 of the National Cycle Network continues south through Diseworth over the A42 towards Belton village before connecting to Route 6 of the National Cycle Network that extends east towards Shepshed and Loughborough or west to smaller villages such as Osgathorpe. Alternatively, Route 15 connects to Route 52 of the National Cycle Network that extends to the south towards Thringstone.

Figure 15: Cycle Routes



Equestrian Facilities

2.44 The are a number of bridleways within 2 to 3 kilometres, including L31/1 and L30/4 to the south of the A42 and L106/1 and L103/3 to the north both of which run through EMG1. There are no bridleways that provide a direct uninterrupted link to the development site. It is understood that the nearest stable to the site is Hemington House Farm, Hemington, Nr Castle Donington, Derbyshire, DE74 2NA, which is listed as a livery yard in the British Equestrian Directory. Further facilities, such as Breaston Equestrian Centre and Elvaston Castle Riding Centre are located circa 8 kilometres from the site.

Existing Walking, Cycling and Equestrian Provision Summary

2.45 There is a reasonable level of existing high quality pedestrian and cycle provision to the north of the site along the eastern side of the A453, though the crossing facility across the northern arm of the Finger Farm Roundabout is uncontrolled and potentially less suitable for less able bodied persons given two lanes of traffic are required to be crossed on either side of the carriageway. Also, there is no equivalent high quality provision on the western side of the A453, which provides the most direct desire line between the site and EMG1.

2.46 There is also no current crossing provision from the site over the A453. Pedestrian/cycle provision through the site is currently limited to Hyman's Lane which has not dedicated/surfaced pedestrian/cycle provision.

2.47 Connections to the south, towards Long Whatton and onwards to the Loughborough area are limited, i.e. users must route on carriageway as there are no dedicated facilities without first routing north to the Kegworth bypass before routing south again (i.e. does not follow the more direct route).

2.48 There are no equestrian facilities in the immediate vicinity of the site.

Walking, cycling and horse-riding survey

2.49 It was determined by the Lead Assessor that there was no existing walking, cycling or equestrian survey data available within the vicinity of the site. As such, in line with paragraph 4.19 of GG 142 survey data has been collected, which includes current usage figures for pedestrians, cyclists and equestrians and are likely to comprise movements from people travelling from nearby villages (Diseworth, Kegworth, Long Whatton and Castle Donington, as well as trips to/from East Midland Airport and EMG1.

2.50 The original surveys were carried out on Wednesday 23 November 2022 and Saturday 26 November 2022. They were carried out over a 12 hour (0700 to 1900 hours) period. Surveys were carried out along the A453 between the site and EMGP1 (Link 1) plus along Hyams Lane (Link 4). Whilst just over 2 years have passed since said surveys were undertaken nothing has changed on the ground which would prejudice the results. The results of the survey are included at **Appendix 3**.

2.51 In addition, to the above, a copy of the classified turning counts carried out at the East Midlands Gateway Phase 1 signal junction and the Finger Farm Roundabout carried out on 3 November 2022 which picks up cyclists within the carriageway is included at **Appendix 4**.

2.52 To inform the updated report, surveys were also carried out on Thursday 30th January 2025 and Saturday 1st February 2025. They were carried out over a 12 hour (0700 to 1900 hours) period. Surveys were carried out along the northern footway/cycleway at the M1 Junction 24 roundabout. The results of this survey are also included at **Appendix 3**.

2.53 **Figure 16** shows the areas surveyed, with **Figures 17** to **23** showing the details of the surveyed routes at each location. **Tables 4** to **19** provide a summary of the survey results for the traditional network peak periods and daily totals. It should be noted that the tables summarise the total movements recorded, not necessarily the total number of individual pedestrians, cyclists and equestrians.

Figure 16: Survey Area

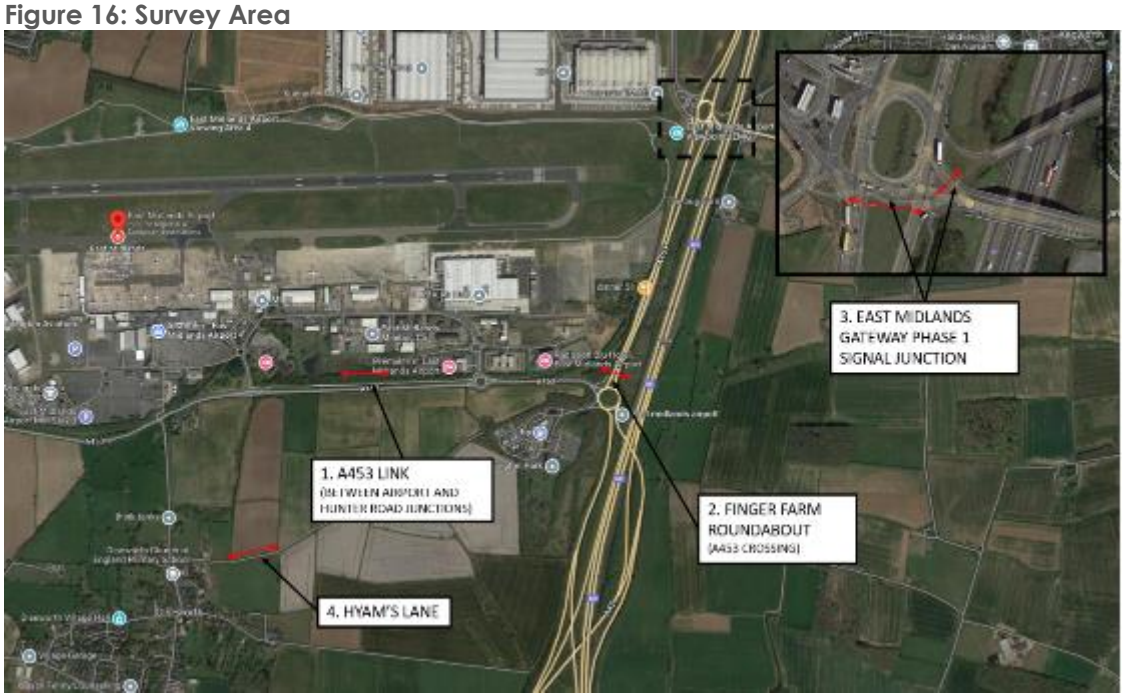


Figure 17: Link 1 - A453 Link (Between the Airport and Hunter Road Junctions)



Table 4: Pedestrian Link 1 – Site 1 A453 Link (Wednesday 23rd November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	0	1	0	0	1
12:00 - 14:00	22	0	0	0	22	3	0	0	0	3
17:00 - 18:00	0	0	0	0	0	2	0	0	0	2
Daily	27	0	0	0	27	21	1	0	0	22

Table 5: Pedestrian Link 1 - Site 1 A453 Link (Saturday 26th of November)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	0	0	0	0	0
12:00 - 14:00	3	0	0	0	3	1	0	0	0	1
17:00 - 18:00	2	0	0	0	2	2	0	0	0	2
Daily	12	1	0	0	13	10	0	0	0	10

2.54 It can be seen from **Tables 4** and **5** that during the traditional peak periods there were limited pedestrian and cyclist activity, with no horse riders being observed.

2.55 During the average weekday a total of 27 pedestrian movements and no cyclist movements were observed eastbound and 22 pedestrian movements and 1 cyclist and movement observed westbound.

2.56 During the average weekend a total of 12 pedestrian movements and 1 cyclist movement were observed eastbound and 10 pedestrian movements and 0 cyclist movements observed westbound.

Figure 18: Link 2 - Finger Farm Roundabout (A453 crossing)



Table 6: Pedestrian Link 2 - Finger Farm Roundabout (Wednesday 23rd November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E – Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	1	0	0	1	0	0	0	0	0
12:00 - 14:00	2	0	0	0	2	0	0	0	0	0
17:00 - 18:00	0	0	0	0	0	0	1	0	0	1
Daily	2	3	0	0	5	2	2	0	0	4

Table 7: Pedestrian Link 2 Finger Farm Roundabout (Saturday 26th November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E – Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	4	0	0	0	4
12:00 - 14:00	0	0	0	0	0	0	0	0	0	0
17:00 - 18:00	0	0	0	0	0	12	0	0	0	12
Daily	1	0	0	0	1	1	4	0	0	5

2.57 It can be seen from **Tables 6** and **7** that during the traditional peak periods there were limited pedestrian and cyclist activity, with no horse riders being observed.

2.58 During the average weekday a total of 2 pedestrian movements and 3 cyclist movements were observed eastbound and 2 pedestrian movements and 2 cyclist movements observed westbound.

2.59 During the average weekend a single pedestrian movement was observed eastbound and 1 pedestrian movement and 4 cyclist movements observed westbound.

Figure 19: Link 3 – East Midlands Gateway Phase 1 Signal Junction



Table 8: Site 3A East Midlands Gateway Crossing A453 (Wednesday 23rd November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	1	0	0	0	1	2	0	0	0	2
12:00 - 14:00	3	3	0	0	6	3	0	0	0	3
17:00 - 18:00	1	0	0	0	1	1	1	0	0	2
Daily	7	5	0	0	12	6	1	0	0	7

Table 9: Pedestrian Link 3A - East Midlands Gateway Crossing A453 (Saturday 26th November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	1	1	0	0	2	2	0	0	0	2
12:00 - 14:00	1	3	0	0	4	0	0	0	0	0
17:00 - 18:00	1	1	0	0	2	0	0	0	0	0
Daily	11	6	1	0	18	16	11	1	0	28

2.60 It can be seen from **Tables 8** and **9** that during the traditional peak periods there were limited pedestrian and cyclist activity, with no horse riders observed.

2.61 During the average weekday a total of 7 pedestrian movements and 5 cyclist movements were observed eastbound and 6 pedestrian movements and one cyclist movement observed westbound.

2.62 During the average weekend a total of 11 pedestrian movements, 6 cyclist and 1 E-scooter movements were observed eastbound and 16 pedestrian movements, 11 cyclist and 1 E-scooter movement were observed westbound.

Table 10: Site 3B East Midlands Gateway Crossing A6 Kegworth Bypass (Wednesday 23rd November 2022)

Time Period	Northbound					Southbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	1	1	0	0	2	2	0	0	0	2
12:00 - 14:00	1	3	0	0	4	4	0	0	0	4
17:00 - 18:00	1	1	0	0	2	1	0	0	0	1
Daily	5	10	0	0	15	9	4	0	0	13

Table 11: Pedestrian Link 3B - East Midlands Gateway Crossing A6 Kegworth Bypass (Saturday 26th November 2022)

Time Period	Northbound					Southbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	0	0	0	0	0
12:00 - 14:00	3	0	0	0	3	7	0	0	0	7
17:00 - 18:00	1	0	0	0	1	0	0	0	0	0
Daily	9	5	1	0	15	8	14	1	0	23

2.63 It can be seen from **Tables 10** and **11** that during the traditional peak periods there were limited pedestrian and cyclist activity, with no horse riders observed.

2.64 During the average weekday a total of 5 pedestrian movements and 10 cyclist movements were observed northbound and 9 pedestrian movements and 4 cyclist movement observed southbound.

2.65 During the average weekend a total of 9 pedestrian movements, 5 cyclist and 1 E-scooter movements were observed northbound and 8 pedestrian movements, 14 cyclist and two E-scooter movements were observed southbound.

Figure 20: Link 4 – Hyam's Lane



Table 12: Pedestrian Link 4 Hyams Lane (Wednesday 23rd November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	0	0	0	0	0
12:00 - 14:00	1	0	0	0	1	1	0	0	0	1
17:00 - 18:00	0	0	0	0	0	0	0	0	0	0
Daily	2	0	0	0	2	2	0	0	0	2

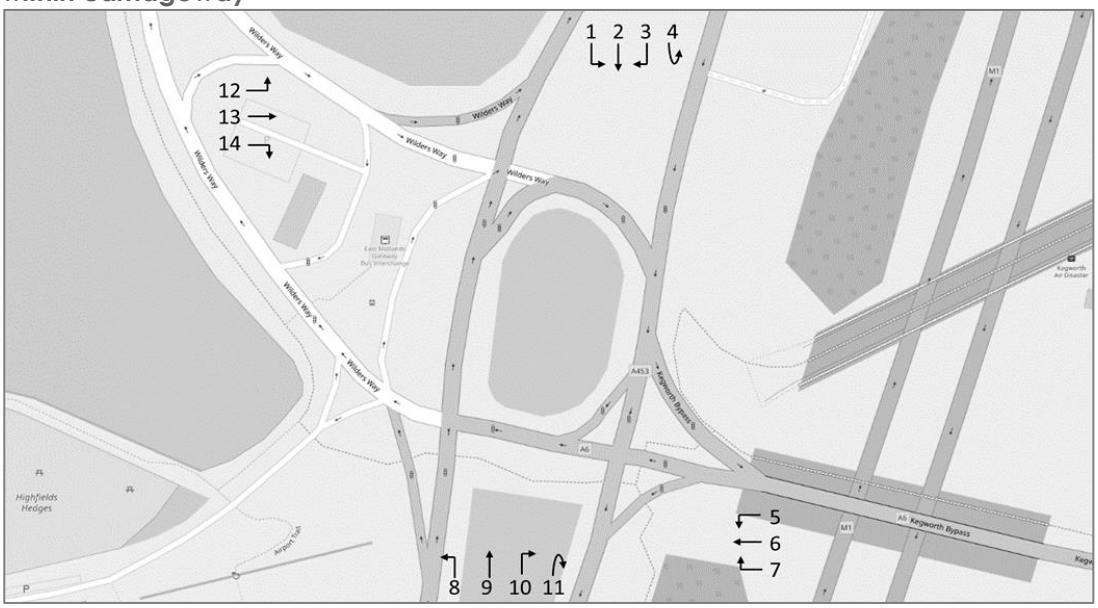
Table 13: Pedestrian Link 4 Hyams Lane (Saturday 26th November 2022)

Time Period	Eastbound					Westbound				
	Pedestrian	Cyclist	E - Scooter	Equestrian	Total	Pedestrian	Cyclist	E - Scooter	Equestrian	Total
08:00 - 09:00	0	0	0	0	0	0	0	0	0	0
12:00 - 14:00	1	0	0	0	1	3	0	0	0	3
17:00 - 18:00	0	0	0	0	0	0	0	0	0	0
Daily	8	0	0	0	8	6	0	0	0	6

2.66 It can be seen from **Tables 12** and **13** that during the traditional peak periods there were no pedestrian, cyclist or equestrian movements observed.

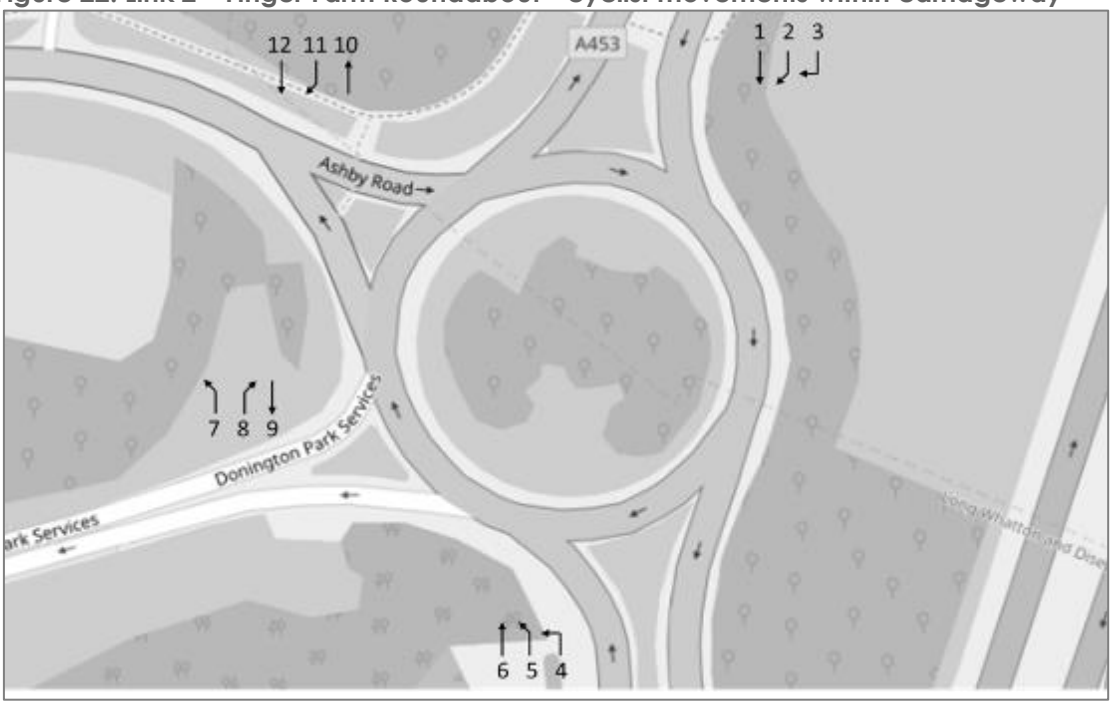
2.67 During the average weekday there were 2 pedestrian movements recorded in each direction. During the average weekend a total of 8 pedestrians were observed eastbound and 6 pedestrian movements were observed westbound.

Figure 21: Link 3 – East Midlands Gateway Phase 1 signal junction– cyclist movements within carriageway



2.68 The survey results included at **Appendix 4**, indicate that a single cyclist movement was recorded within the carriageway at this junction in the morning peak; the cyclist was travelling straight ahead from the A6 Kegworth Bypass to Wilders Way (Movement 6).

Figure 22: Link 2 – Finger Farm Roundabout - cyclist movements within carriageway



2.69 The survey results included at **Appendix 4**, indicate that no cyclist movements were recorded within the carriageway at this junction.

Figure 23: Link 5 Surveys along Footway at M1 Junction 24

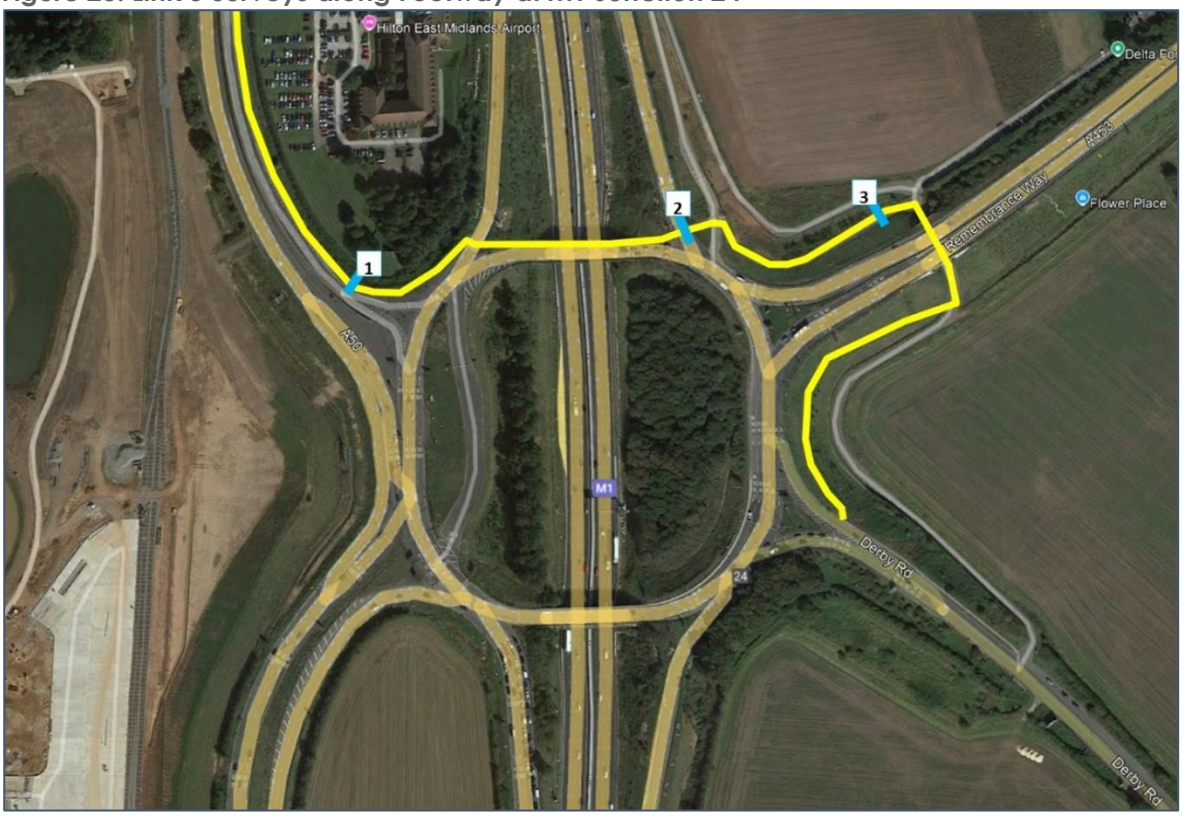


Table 14: Location 1 – Thursday 30th January 2025

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	1	1
12:00 - 14:00	1	2	3	1	0	1
17:00 - 18:00	0	2	2	0	0	0
Daily	2	11	13	2	4	6

Table 15: Location 1 – Saturday 1st February 2025

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	0	0
12:00 - 14:00	0	2	2	0	2	2
17:00 - 18:00	2	0	2	4	0	4
Daily	3	10	13	6	4	10

2.70 It can be seen from **Table 14** and **Table 15** that during the traditional peak periods there were limited pedestrian and cyclist activity, During the average weekday a total of 2 pedestrian movements and 11 cyclist movements were observed eastbound and 2 pedestrian movements and 4 cyclist movements observed westbound. During the average weekend a total of 3 pedestrian movements and 10 cyclist movement were observed eastbound and 6 pedestrian movements and 4 cyclist movements observed westbound.

Table 16: Pedestrian Link 2 Kegworth Interchange M1 J24 (Thursday 30th January 2025)

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	1	1

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
12:00 - 14:00	1	2	3	1	0	1
17:00 - 18:00	0	2	2	0	0	0
Daily	1	31	32	1	23	24

Table 17: Pedestrian Link 2 Kegworth Interchange M1 J24 (Saturday 1st February 2025)

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	0	0
12:00 - 14:00	0	1	1	0	2	2
17:00 - 18:00	2	0	2	4	0	4
Daily	3	31	34	6	25	31

2.71 It can be seen from **Table 16** and **17** that during the traditional peak periods there were limited pedestrian and cyclist activity, During the average weekday a total of 1 pedestrian movement and 31 cyclist movements were observed eastbound and 1 pedestrian movement and 23 cyclist movements observed westbound. During the average weekend a total of 3 pedestrian movements and 31 cyclist movement were observed eastbound and 6 pedestrian movements and 25 cyclist movements observed westbound.

Table 18: Pedestrian Link 3 Kegworth Interchange M1 J24 (Thursday 30th January 2025)

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	1	1
12:00 - 14:00	1	2	3	1	0	1
17:00 - 18:00	0	2	2	0	0	0
Daily	1	31	32	1	23	24

Table 19: Pedestrian Link 3 Kegworth Interchange M1 J24 (Saturday 1st February 2025)

Time Period	Eastbound			Westbound		
	Pedestrian	Cyclist	Total	Pedestrian	Cyclist	Total
08:00 - 09:00	0	0	0	0	0	0
12:00 - 14:00	0	1	1	0	2	2
17:00 - 18:00	2	0	2	4	0	4
Daily	3	31	34	6	25	31

2.72 It can be seen from **Table 18** and **19** that during the traditional peak periods there were limited pedestrian and cyclist activity, During the average weekday no pedestrian movements and 12 cyclist movements were observed eastbound and 1 pedestrian movement and 5 cyclist movements observed westbound. During the average weekend a total of 3 pedestrian movements and 10 cyclist movement were observed eastbound and 5 pedestrian movements and 4 cyclist movements observed westbound.

Liaison with local user groups and wider public

2.73 In line with the requirements of GG 142 paragraph 4.20, discussions with local user groups have either been held, or will continue to be held by the Project team, including LCountyC, NCountyC, DCountyC Transforming Cities Team, Sustrans, Long Whatton and

Diseworth Parish Council, Kegworth Parish Council, Castle Donington Parish Council and Trent Barton with regards to bus improvements.

2.74 A public consultation event has been held between 3 February and 17 March 2025, with two public exhibitions and an online webinar held during this period, details of which are set out below:

- Exhibition One – 10 February 15:00 to 19:00 – Diseworth Village Hall
- Exhibition Two – 25 February 15:00 to 19:00 – Hilton East Midlands Airport
- Webinar – 4 March 18:00 to 19:30

2.75 In terms of pedestrian and cycle links during the public consultation event a query was raised with regards to the quality of the pedestrian / cycle routes south from Diseworth – It was highlighted by a number of residents that the pedestrian / cycle connection between EMG2, Diseworth and Long Whatton south to Loughborough despite being named as part of the National Cycle Network, is considered to be of poor quality. There is no path or off-road cycle facilities and for a 60mph road it was felt that there would be few people who could use active travel along the route safely.

2.76 Feedback from the Diseworth exhibition was that there are a number of local individuals in Diseworth who ride horses along both Hyam's Lane and Long Holden.

3. USER OPPORTUNITIES

3.1 The opportunities highlighted in **Table 20** are deemed relevant to the Scheme and should be considered by the Design Team Leader throughout the progression of the Scheme design, together with any further opportunities that may arise through the ongoing development of the design phases. The Lead Assessor confirms that all relevant opportunities for the highway Scheme have been fully considered.

Table 20: Identified user opportunities

General Opportunities
Opportunity 1 Consider the provision of a shared footway /cycleway within the site.
Opportunity 2 Consider providing a footway/cycleway along the western side of the A453 to provide a connection between EMG2 and EMG1 which would provide wider connectivity between the surrounding areas such as EMA and Kegworth.
Opportunity 3 Consider providing appropriate pedestrian and cyclist crossing facilities along the access roads within EMG2 to provide safe crossing opportunities.
Opportunity 4 Consider providing appropriate pedestrian and cyclist crossing points on the A453 at the EMA junction and to east of the proposed site access, to enhance

connectivity to EMG1 and EMA to provide a safe crossing facility for pedestrians and cyclists.
Opportunity 5 Consider upgrading Footpath Link 57 to connect Castle Donington to EMG1 and then onto EMG2 via EMG1 and the new A453 link.
Strategic Opportunities
Opportunity 6 Consideration should be given to ensuring that the proposals take into consideration the existing PROWs including Hyam's Lane and National and local cycle links and how the development proposals can tie into them to enhance connectivity to Long Holden.
Opportunity 7 Consideration should be given to making Hyam's Lane part of NCN15 and then extending the link through the site, up the A453 to EMG1 and to Kegworth (see opportunity 2).
Opportunity 8 Consideration should be given to whether any improvements could be made to the pedestrian / cycle routes south from Diseworth that would provide a shorter connection to Loughborough for employees (as well as benefits for residents).
Pedestrian Specific Opportunities
Opportunity 9 Consider how wider connectivity of Hyam's Lane (which is being retained within the site) can be enhanced, this could include: - additional south-easterly connection from Hyam's Lane to the Country Park (adjacent to the Moto Donington Services). - an additional northerly connection from Hyam's Lane to the proposed EMG2 Bus Interchange. - an additional southerly connection from Hyam's Lane to Long Holden, this connection provides access directly into the EMG2 estate.
Cyclist Specific Opportunities
Opportunity 10 Consider whether existing footways in the vicinity of the site can be upgraded to shared cycleway / footways to enhance connectivity.
Equestrian Specific Opportunities
In terms of equestrian specific opportunities, no such opportunities have been identified.

4. WALKING, CYCLING AND HORSE RIDING ASSESSMENT TEAM

4.1 As Lead Assessor, I confirm that this Walking, Cycling and Horse-Riding Assessment Report has been compiled in accordance with DMRB HD GG 142 and thus contains the appropriate information for the wider design team.

4.2 The Walking, Cycling and Horse-Riding Assessment was undertaken by the following assessment and review Team:

Table 21: Walking, Cycling and Horse Riding Lead Assessor

Name	**Paul Wilson**
Position	Director
Organisation	BWB Consulting Limited
Signed	[redacted]
Date	28 July 2025

Table 22: Walking, Cycling and Horse Riding Assessor

Name	**Sara Terrey**
Position	Associate Director
Organisation	BWB Consulting Limited
Signed	[redacted]
Date	21 March 2025

Design Team Leader

4.3 As Design Team Leader, I confirm that the assessment has been undertaken at the appropriate stage of the Scheme development.

4.4 I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Table 23: Design Team Leader

Name	**Simon Hilditch**
Position	Director (Infrastructure Design
Organisation	BWB Consulting Limited
Signed & dated	28 July 2025

APPENDICES

APPENDIX 1: Illustrative Masterplans and Components of the Proposed Development



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KEY:

- Draft Order Limits EMG2 DCO
- Existing Trees / Woodland
- Existing Hedgerows / Other Planting
- Proposed Woodland / Structural and Scrub Planting
- Proposed Tree / Scattered Scrub
- Proposed Hedgerows
- Proposed Grassland
- Proposed Sustainable Drainage (Dry) Features (Indicative)
- Existing Public Rights of Way (PROW)
- Proposed Footways / Redirected PROW and/or Cycleways (Off-Road Routes)
- Proposed Mitigation Mounding (Indicative)

This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.

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t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk

N

drwn/chkd	scale	date
JMG / TRJ	1:2500 @ A1	31/01/2025
number	status	rev
10666-FPCR-XX-XX-DR-A-0001	S2	P04

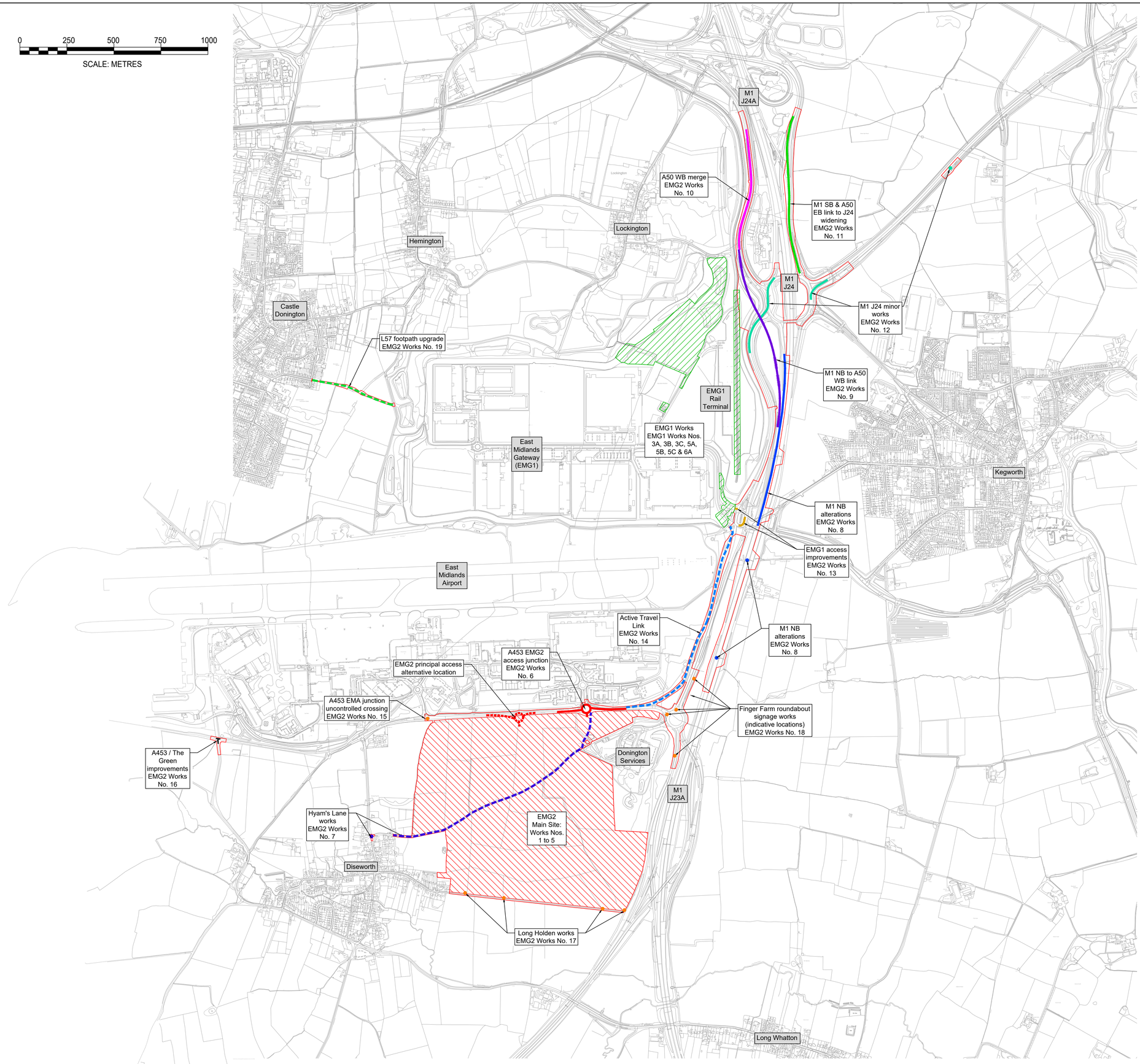
0 50 100 150 200 250m

client
SEGRO

project
East Midlands Gateway Phase 2

title
ILLUSTRATIVE LANDSCAPE MASTERPLAN

SEGRO FPCR | environment & design



Legend

- DRAFT EMG2 DCO order limits
- DRAFT EMG1 MCO order limits

The Scheme is comprised of components (1) to (7):

The Highway Works are comprised of components (3) to (7)

(1) "EMG2 Main Site"

- The Commercial and Employment
- A453 EMG2 access junction works

(2) "EMG1 works"

- Changes to EMG1

(3) "J24 improvements"

- M1 NB works
- M1 NB to A50 WB link
- A50 WB merge
- M1 SB & A50 EB to J24 link widening
- Minor works (signing and lining)

(4) "Active travel works"

- Active Travel link
- Hyam's Lane works
- L57 footpath upgrade

(5) "A453 / The Green improvements"

(6) "EMG1 access improvements"

(7) Other works as described

Rev	Date	Details of issue / revision	Drw	Rev
P05	28.01.25	Minor Amendment	SRH	SRH
P04	10.01.25	Works 18 & 19 added	SRH	SRH
P03	05.12.24	Various updates	SRH	SRH
P02	02.12.24	Works nos. added	SRH	SRH
P01	15.11.24	Issued for comment	SRH	SRH

ISSUES & REVISIONS

SEGRO

THE EAST MIDLANDS GATEWAY PHASE 2 AND HIGHWAY ORDER 202[ ] AND THE EAST MIDLANDS GATEWAY RAIL FREIGHT INTERCHANGE AND HIGHWAY (AMENDMENT) ORDER 202[ ]

Drawing Title

COMPONENTS OF THE PROPOSED DEVELOPMENT

Scale	1:10,000	Drawn	S. Hilditch
Size	A1	Reviewed	S. Hilditch

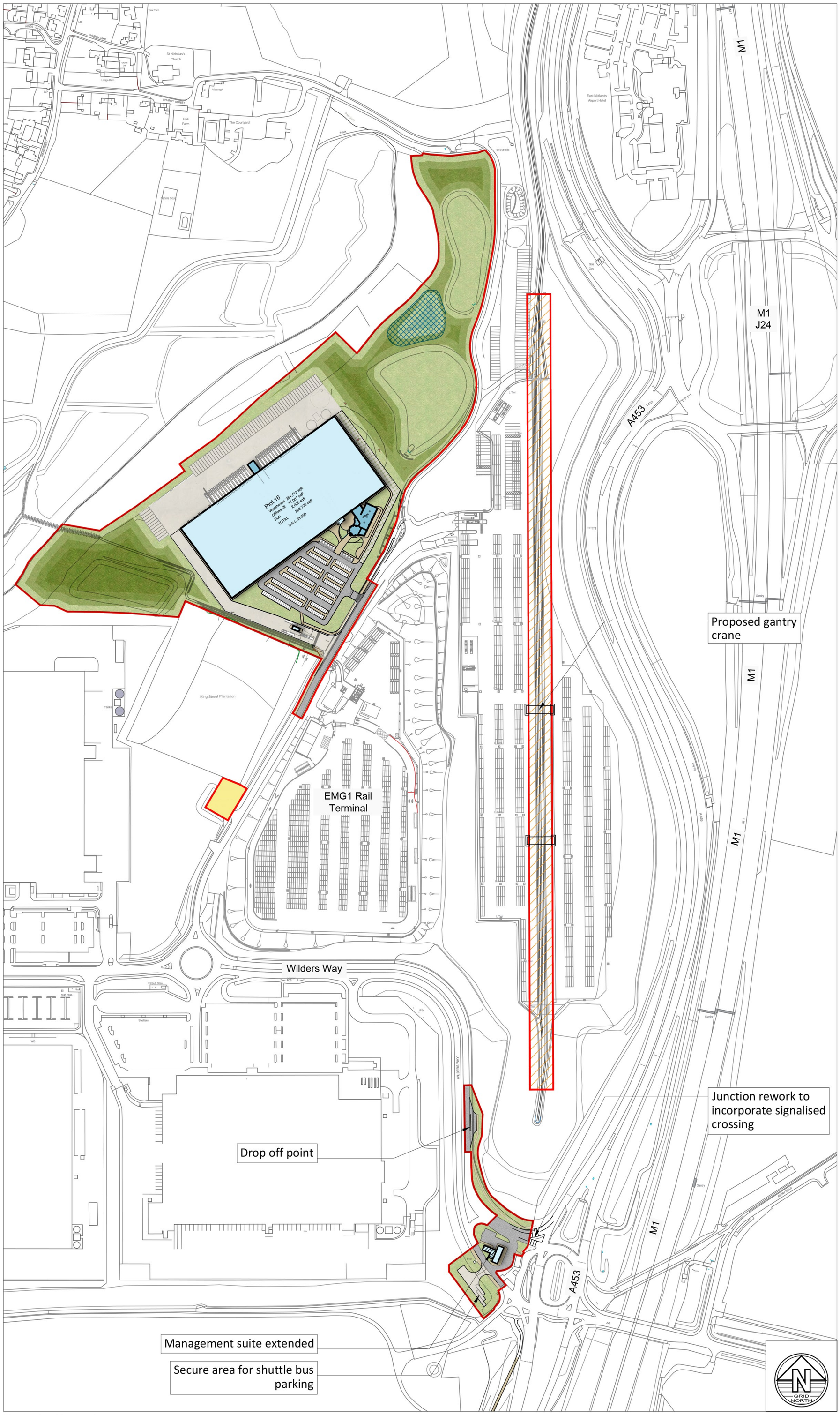
Regulation: **5(2) (0)**

Document: **2.7 / MCO2.7**

Drawing Status: **CONSULTATION DRAFT**

Drawing No.: **EMG2-BWB-GEN-XX-SK-CH-SK023**

Revision: **P05**



Illustrative Masterplan
Scale 1:2,500

DRAFT

50m SCALE 1:2500

- Dimensions are in millimeters, unless stated otherwise.
- Scaling of this drawing is not recommended.
- It is the recipients responsibility to print this document to the correct scale.
- All relevant drawings and specifications should be read in conjunction with this drawing.

Schedule of Accommodation

Total GIA	**-**	**283,720 ft²**	**(26,358 m²)**
Plot 16			
Warehouse Area	-	264,713 ft²	(24,592 m²)
Office Area (incl. GF core)	-	17,007 ft²	(1,580 m²)
Transport Office's	-	2,000 ft²	(186 m²)
Unit 16 GIA	**-**	**283,720 ft²**	**(26,358 m²)**

Key

- EMG1 MCO order limits
- Gantry crane height increase (24m Maximum height)
- Sub-station upgrade works
- Indicative location of proposed SUD's within open land/landscaping

Rev	Date	Details of issue / revision	Drw	Rev
P2	28.01.25	Title block changes	LM	MS
P1	27.01.25	Preliminary Issue	LM	MS

ISSUES & REVISIONS

SEGRO

THE EAST MIDLANDS GATEWAY RAIL FREIGHT INTERCHANGE AND HIGHWAY (AMENDMENT) ORDER 202[ ]

Drawing Title

ILLUSTRATIVE MASTERPLAN

Scale	1:2500	Drawn	LM
Size	A1	Reviewed	MS

Regulation
4(2)(e) and 16(2)(j)

Document
MCO 2.6

Drawing Status
CONSULTATION DRAFT

Drawing No.
EMG1-UMC-SI-01-DR-A-0085

Revision
P2

APPENDIX 2: Personal Injury Collision Data

HIGHWAY SAFETY & ROAD CASUALTY POSITION STATEMENT

EAST MIDLANDS GATEWAY PHASE 2

PROJECT NAME	**East Midlands Gateway Phase 2 – Highway Safety & Road Casualty Position Statement**		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0015	**BWB REF**	220500
AUTHOR	Fred Summerfield	**STATUS**	S2
CHECKED	Matt Corner	**REVISION**	P1
APPROVED	Paul Wilson	**DATE**	14/03/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway employment development (EMG2). The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

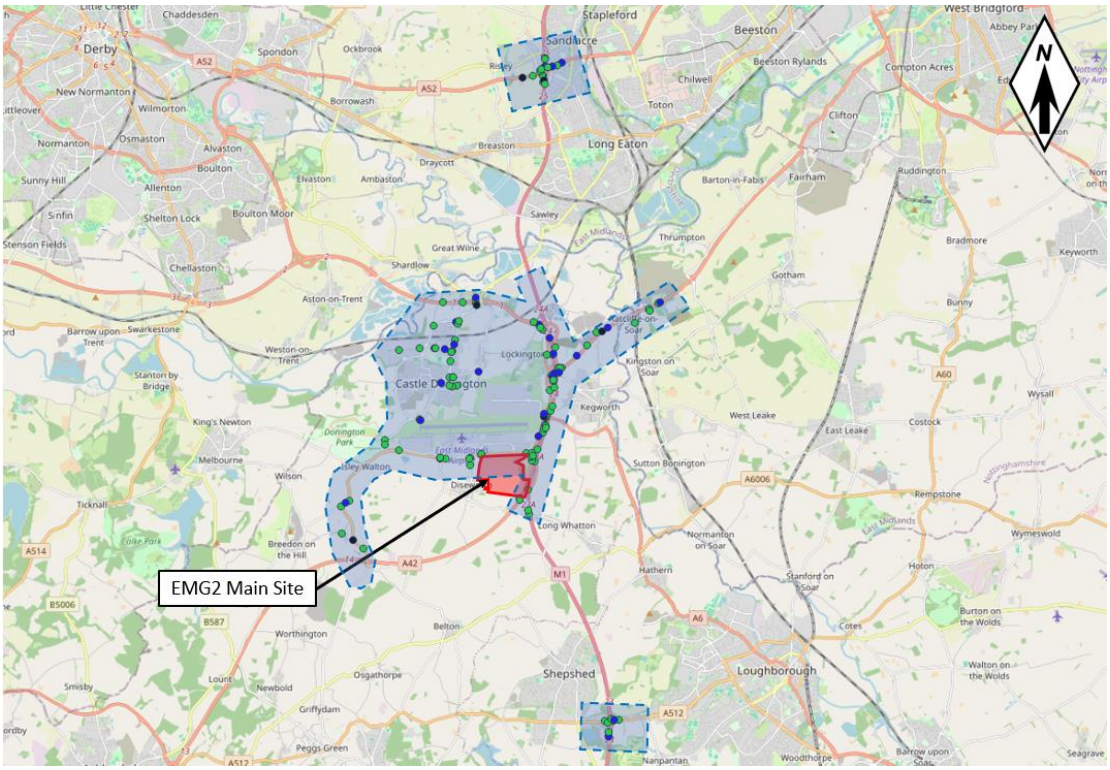
1.2 As part of the Transport Assessment process, detailed Personal Injury Collision (PIC) data has been obtained from the relevant highway authorities of key junctions and links on the surrounding highway network which form the initial proposed study area. The PIC data has been analysed to identify whether there are any existing safety issues that could be unacceptably impacted by additional traffic from the proposed development and therefore whether any further assessment is required as part of the Transport Assessment.

1.3 The assessment seeks to provide an understanding of where safety issues are already present on the network, for the EMG2 development to consider from the outset when proposing highway mitigation to minimise and improve the risk of collisions and road casualties. It follows advice contained within the National Networks National Policy Statement (March 2024), and in particular Paragraphs 4.57 to 4.61 which relate to 'road safety' and are included at **Appendix 1**.

1.4 **Figure 1** shows the study area of the highway network, which includes roads on both the Strategic Road Network and local road network. PIC data has been obtained for the latest six-year period between 1 January 2019 and 23 October 2024 A total of 175 PICs were recorded within the study area, of which 125 were classified as slight, 42 as serious and 8 as fatal. The raw PIC data is included in the following appendices:

- **Appendix 2** – Leicestershire County Council network
- **Appendix 3** – M1 Junction 25 (Derbyshire)
- **Appendix 4** – A453 Remembrance Way (Nottinghamshire)

Figure 1. Personal Injury Collision Study Area



1.5 **Table 1** summarises the number of PICs that have occurred each year since 2019.

Table 1. Number of Personal Injury Collisions by year

	2019	2020	2021	2022	2023	2024
Slight	21	9	26	31	19	19
Serious	2	8	8	7	9	8
Fatal	0	2	0	0	3	3
Total	**23**	**19**	**34**	**38**	**31**	**30**

1.6 The details show that there has been a relatively consistent number of PICs during each of the years assessed, equating to 29 per annum. There was a slight reduction in PICs during 2020 possibly due to the Covid-19 Pandemic and significant reductions in traffic flows and journeys during that time.

1.7 Section 2 of this Technical Note analyses the PIC data individually at the following locations/junctions, seeking to understand whether there are any existing safety problems that need assessing in further detail within the Transport Assessment:

- Junctions 1 & 2) Site frontage and A453/Hunter Road Roundabout
- Junction 3) Finger Farm Roundabout
- Junction 4) A453/EMG1 access junction

- Junction 5) M1 Junction 24
- Junction 6) A453/East Midlands Airport Signal Junction
- Junction 7) A453/Grimes Gate Priority Junction
- Junction 8) A453/The Green Priority Junction
- Junction 9) A453/East Midlands Airport Roundabout
- Junction 10) A453/Walton Hill Signal Junction (Leicestershire)
- Junction 11) A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout
- Junction 12) M1 Junction 23
- Junction 13) A50 Junction 1
- Junction 14) M1 Junction 25
- Junction 15) Station Road/Broad Rushes Roundabout
- Junction 16) A453/Kegworth Road dumbbell Roundabouts
- Junction 17) A453/Barton Lane/West Leake dumbbell Roundabouts

2. PERSONAL INJURY COLLISION DATA ANALYSIS

Junctions 1 & 2: Site Frontage and A453/Hunter Road Roundabout

2.1 **Figure 2** shows an extract of the PIC records across the site frontage and at the A453/Hunter Road roundabout. The records confirm there have been no PICs within this location over the latest 6-year period. Therefore, it can be concluded that there are no existing safety problems at this location and no further assessment is required.

Figure 2. Personal Injury Collisions at the site frontage and A453/Hunter Road Roundabout



J3 – Finger Farm Roundabout

2.2 **Figure 3** shows an extract of the PIC records at and in the vicinity of Finger Farm roundabout confirming that 11 PICs have been recorded over the latest 6-year period, 10 of which were classified as slight and one as serious. **Table 2** provides a summary of each recorded PIC.

Figure 3. Personal Injury Collisions at Finger Farm Roundabout

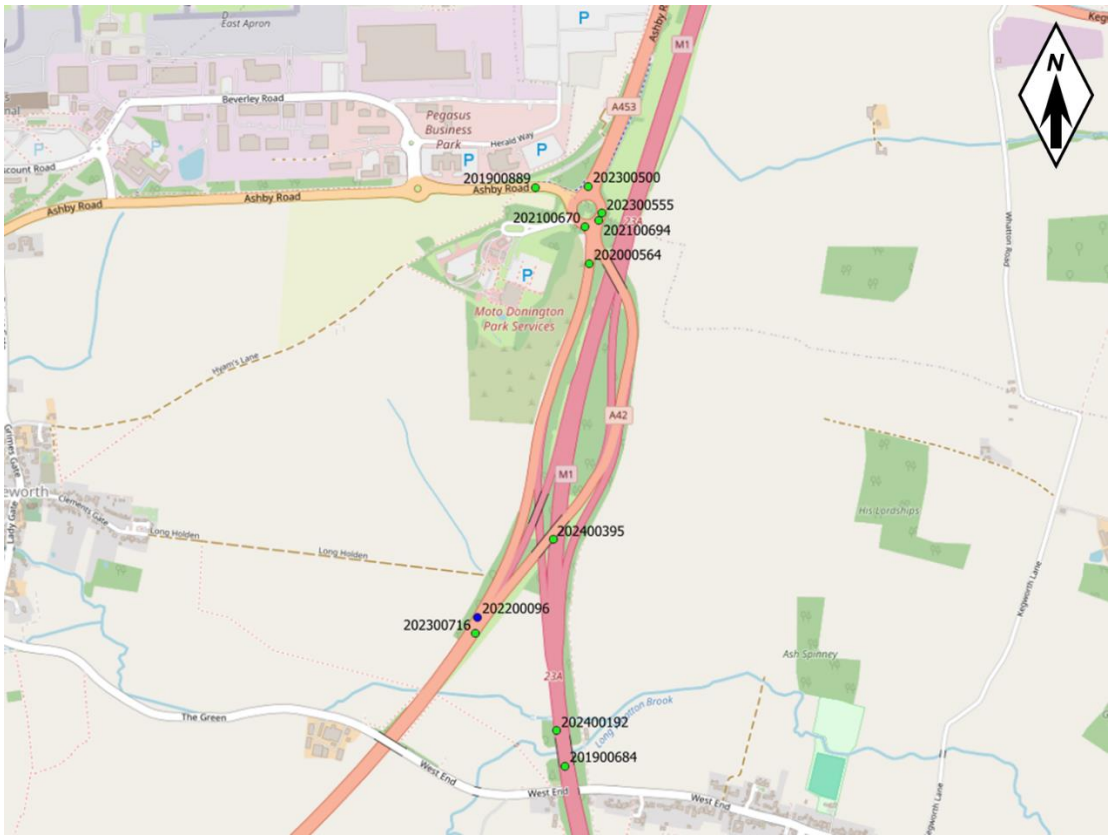


Table 2. Personal Injury Collision Data Summary (Finger Farm Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900889	17/09/2019	Fine / Dry	Slight	V1, V3, V4, V5 and V6 were traveling westbound on the A453. V2 was traveling eastbound on the A453 causing rear end shunt collisions
201900684	29/06/2019	Fine / Dry	Slight	V1 was travelling ahead on the M1 northbound and V2 was changing lanes to the right
202000564	19/03/2020	Wet / Damp	Slight	V1 (car) was parked on the M1/A42 slip road and V2 (7.5T goods vehicle) was overtaking on the off/side
202100670	03/09/2021	Fine / Dry	Slight	V1 was entering the roundabout from the M1/A42 slip road heading towards the A453 westbound when it collided into the kerb. The collision occurred during hours of darkness, but no other vehicles were involved
202100694	10/09/2021	Wet / Damp	Slight	V1 was travelling on the roundabout circulatory from the A453 (west) to the A42 on-slip. V2 was travelling from the same direction towards Donington Park services and collided with V1 which was held up
202200096	30/01/2022	Fine / Dry	Serious	V2 was travelling northbound on the A42 off slip road to the A453. V1 was traveling in the same direction and collided with V2 when changing lanes to the left
202300500	09/06/2023	Fine / Dry	Slight	V1 was changing lane heading northbound on the A453 and collided with V2 which joined the roundabout from the A453 northbound entry
202300555	07/07/2023	Fine / Dry	Slight	V1 was travelling southbound to the A42 and collided with V2 which was changing lane and travelling in the same direction
202300716	16/08/2023	Fine / Dry	Slight	V2 and V3 were travelling southbound on the M1 J23A on slip. V1 was travelling in the same direction and collided when overtaking a vehicle on its offside
202400192	23/02/2024	Fine / Dry	Slight	V1 was travelling northbound on the M1 approaching J23A and V2 was travelling in the same direction and collided when overtaking a vehicle on its offside
202400395	06/05/2024	Fine / Dry	Slight	V1 was travelling northbound on the M1 and lost control

2.3 The details show that the 11 recorded PICs occurred at different locations of the roundabout and on approach to J23A from the M1 and M42. The PICs were caused due to a number of reasons (rear end shunts, overtaking, lane changing and driver error). There have been no clusters of PICs occur at any specific location of the roundabout or the network in the vicinity of M1J23A and therefore given this is a junction on part of the Strategic Road Network that accommodates a high volume of traffic, it is considered that there are no significant safety problems at this location and no further assessment will be undertaken in the Transport Assessment.

J4 – A453/EMG1 Access Junction

2.4 **Figure 4** shows a detailed extract of the PIC records at the A453/EMG1 signal gyratory confirming there have been seven recorded PICs over the latest 6-year period. Of the seven recorded PICs, three were classified as slight, two were classified as serious and one was classified as fatal. **Table 3** provides a summary of each recorded PIC.

Figure 4. Personal Injury Collisions at A453/EMG1 Access Junction

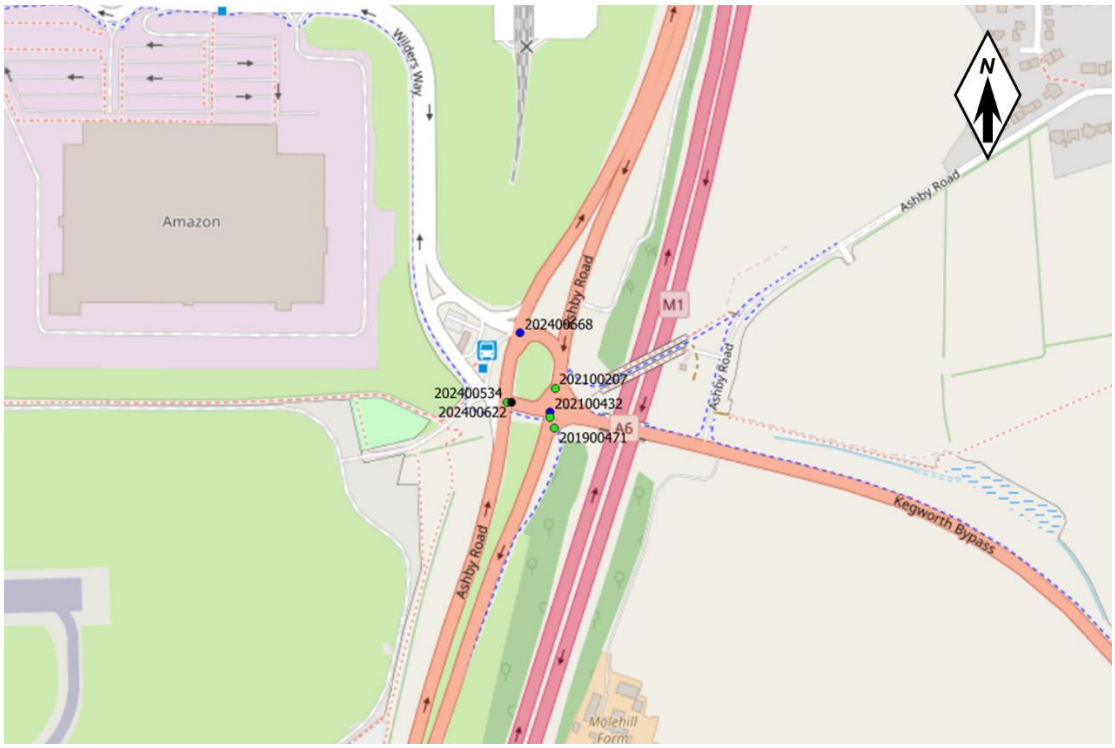


Table 3. Personal Injury Collision Data Summary (A453/EMG1 Access Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900471	13/052019	Fine / Dry	Slight	V1 and V2 were entering the roundabout from the A6 to the A453 north and V3 was mid roundabout travelling ahead from the A453 north to A453 south
202100207	08/04/2021	Fine / Dry	Slight	V1 was leaving the roundabout travelling from the A453 north to the A453 south, whilst V2 was leaving the roundabout turning right from EMG1 to the A453 south
202100432	16/06/2021	Fine / Dry	Serious	V1 was travelling ahead at the roundabout from the A453 north to the A453 south and V2 and V3 were entering the roundabout from the A6 to EMG1
202400038	13/01/2024	Fine / Dry	Slight	V1 was on the roundabout circulatory travelling south on the A453. V2 was also mid-junction on the roundabout travelling from the A6 to EMG1
202400534	12/06/2024	Fine / Dry	Slight	V1 was mid junction slowing down and travelling from the A453 south to A453 north. V2 was also mid junction travelling in the same direction from the A453 south to A453 north causing a rear end shunt collision,
202400622	05/07/2024	Fine / Dry	Fatal	V1 was travelling northbound on the A453 and collided with V2 which was travelling from the A6 to EMG1 but held up on the roundabout.
202400668	21/07/2024	Fine / Dry	Serious	V1 was entering the roundabout travelling from EMG1 to the A6. V2 was travelling from the A453 south to A453 north

2.5 The majority of the seven PICs were a result of a collision due to conflicting turning movements at the junction, one of which resulted in fatal injuries (accident number: 202400622). The majority of the PICs were due to turning movements between drivers travelling ahead on the A453 and others travelling from EMG1 or the A6, with a higher number of PICs occurring on the gyratory circulatory close to the A6 entry. With this in mind and given one of the PICs resulted in fatal injuries, further analysis of this junction, and in particular the movement from the A6 to EMG1, will be undertaken in the Transport Assessment. This will provide a greater understanding as to whether there is an issue with visibility to the signals or the intergreen time, as the movements causing collisions should be operating under different phases.

2.6 The proposed highway works include for some changes to the layout of the junction by providing two right turning lanes from the A453 southbound into EMG1. These works present an opportunity to make changes to the traffic signals to improve safety of the junction and the further analysis within the Transport Assessment discussed above will inform this work.

J5 – M1 J24

2.7 **Figure 5** shows a detailed extract of the PIC records at M1 Junction 24 confirming there have been 16 recorded PICs over the latest 6-year period. Of the 22 recorded PICs, 16 were classified as slight and 6 were classified as serious, with no fatal collisions. **Table 4** summarises each of the recorded PICs in further detail.

Figure 5. Personal Injury Collisions at M1 Junction 24

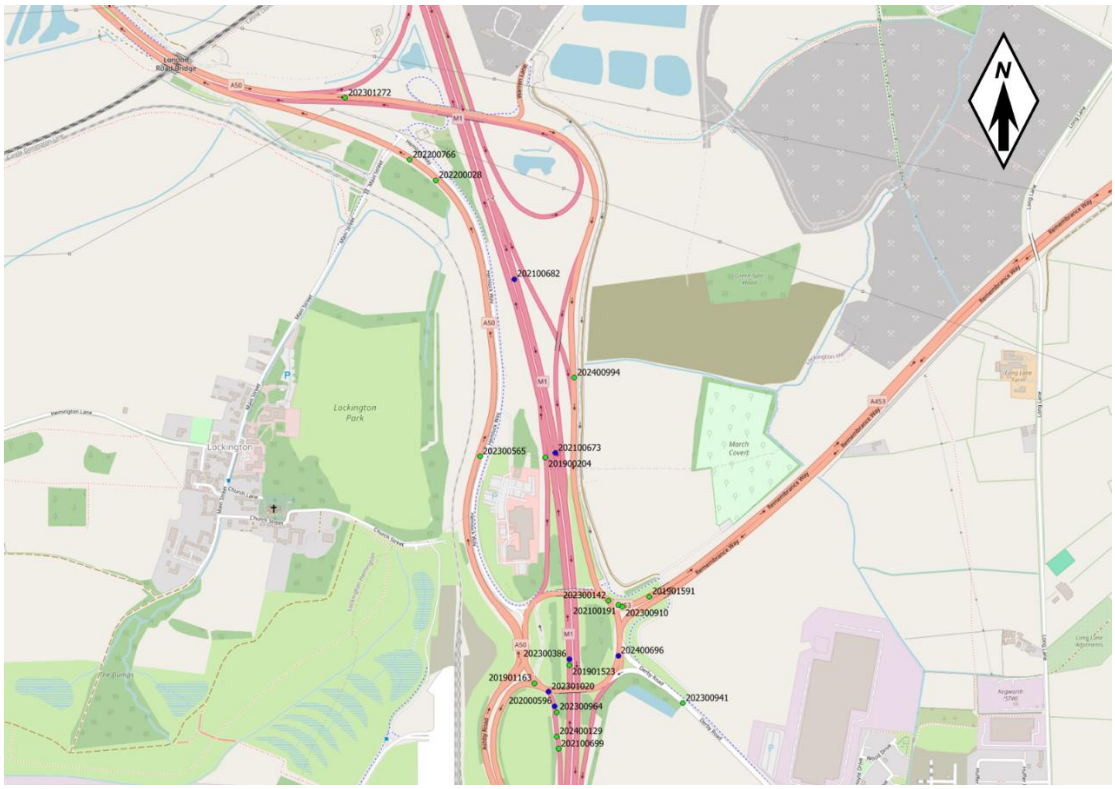


Table 4. Personal Injury Collision Data Summary (M1 J24)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900204	06/02/2019	Wet / Damp	Slight	V1, V2 and V4 were approaching the junction from the M1 northbound exit slip. V3 was leaving the motorway from the same direction causing a rear end shunt collision
201901163	22/10/2019	Fine / Dry	Slight	V1 was leaving the roundabout travelling to the A50. V2 was also leaving the roundabout to the A50 but changed lanes causing a collision
201901523	23/02/2019	Fine / Dry	Slight	V1 and V2 were travelling southbound on the M1 mainline away from the junction and collided
201901591	22/10/2019	Fine / Dry	Slight	V1 and V2 were travelling from the A453 south to the A453 north and collided (exact location unknown when collision occurred)

202000596	05/08/2020	Fine / Dry	Serious	V1 was approaching the junction on the M1 northbound exit slip. V2, V3 and V4 were approaching the junction from the same direction but held up causing a rear end shunt collision
202100191	12/04/2021	Fine / Dry	Slight	V1 was leaving the roundabout turning left from M1 southbound off-slip to the A453 Remembrance Way when a collision occurred. This was the only vehicle involved
202100673	03/09/2021	Fine / Dry	Serious	V1 and V2 were approaching the junction on the M1 mainline heading southbound. V3 was also approaching the junction from the same direction and changing lane when a collision occurred
202100682	06/09/2021	Fine / Dry	Serious	V1 and V2 were going ahead on the M1 southbound approaching junction 24 when a collision occurred
202100699	11/09/2021	Fine / Dry	Slight	V1 and V2 were leaving the M1 on the northbound off-slip. The exact reason for the collision is unknown but it occurred away from the roundabout
202200028	15/01/2022	Frost / Ice	Slight	V1 and V2 were going ahead south to northwest on A50 northbound slip road when a collision occurred
202200766	28/06/2022	Fine / Dry	Slight	V2 was going ahead and V2 was overtaking going westbound on the A50 when a collision occurred
202300142	18/02/2023	Fine / Dry	Slight	V1 was leaving the roundabout travelling to the A453 Remembrance Way. There was no other vehicle involved
202300386	25/05/2023	Fine / Dry	Serious	V1 and V2 were both travelling northbound on the M1 mainline away from the junction
202300565	10/07/2023	Wet / Damp	Slight	V1 (goods vehicle) was travelling northbound on the A50 and was changing lanes to the left and collided with V2 (car) travelling in the same direction
202300910	25/09/2023	Fine / Dry	Slight	V1 was leaving the roundabout travelling from the M1 southbound off-slip to the A453 Remembrance Way.V2 was travelling in the same direction and changed lane causing a collision
202300941	04/10/2023	Fine / Dry	Slight	V1 and V2 were both travelling northwestbound on Derby Road approaching the junction from a distance.
202300964	06/10/2023	Wet / Damp	Slight	V1 and V2 were travelling on the northbound off-slip towards the roundabout
202301020	22/10/2023	Fine / Dry	Serious	V1 was on the roundabout travelling to the A50. V2 (Motorcycle) was entering the roundabout, travelling ahead from the A453 south to the M1 northbound
202301272	22/12/2023	Wet / Damp	Slight	V1 was traveling on the A50 slip road to the M1 southbound when a collision occurred

202400129	29/01/2024	Fine / Dry	Slight	V1 and V2 were approaching the junction from the M1 northbound off-slip. V1 was held up causing a rear end shunt collision with V1
202400696	31/07/2024	Fine / Dry	Serious	V1 was leaving the roundabout travelling to the M1 southbound. V2 was turning right from the M1 southbound to the A453 Remembrance Way but collided with V1 that was changing lanes.
202400994	18/10/2024	Fine / Dry	Slight	V1 was going ahead and V2 was changing lanes to the right on the A50 M1 slip road when a collision occurred

2.8 The details show that a cluster of PICs has formed along the M1 northbound off-slip. There appear to be no other locations where clusters of PICs have occurred. A total of six PICs have occurred on the M1 northbound off-slip, which were predominantly due rear end shunt type collisions. Whilst the majority of EMG2 development traffic travelling northbound on the M1 is likely to exit at Junction 23a at Finger Farm given this is the quickest route, further assessment of highway safety on this arm will be undertaken in the Transport Assessment for completeness.

2.9 The scheme is proposing a significant improvement to M1 junction 24 by providing a free-flow link from the M1 northbound to A50 westbound. This is forecast to improve capacity and remove queuing from the M1 mainline and will transfer a significant number of vehicles away from the current slip road onto the new link, thus reducing queuing on the slip road. This work clearly has the potential to positively improve safety of the strategic road network.

2.10 Furthermore, during the Public Consultation events, comments were raised regarding potential safety issues on the A50 northbound weaving from Junction 24. The PIC records confirm that there has been a single isolated PIC occur on this section of the network during the study period, which was classified as slight. Whilst this was a result of a goods vehicle changing lanes, it shows that the number of PICs recorded on this part of the network are low and there are no on-going issues or clusters of PICs that suggest there are any significant safety problems at this location.

J6 – A453/East Midlands Airport Signal-Controlled Junction

2.11 **Figure 6** shows a detailed extract of the PICs that have been recorded at the A453/East Midlands Airport signal-controlled junction confirming there has been three recorded PIC over the latest 6-year period. Two of the PICs were classified as slight and the remaining PIC was classified as fatal. **Table 5** provides a summary of the recorded PICs.

Figure 6. Personal Injury Collisions at A453/East Midlands Airport Junction

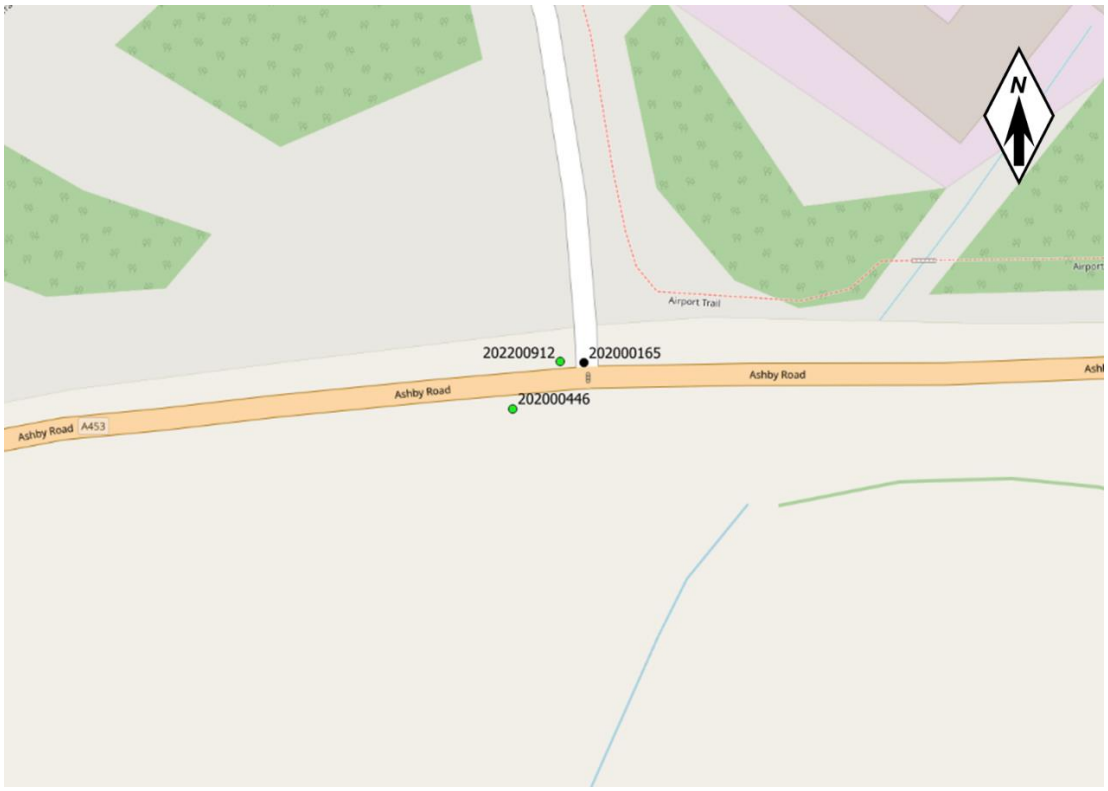


Table 5. Personal Injury Collision Data Summary (A453/East Midlands Airport Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000165	21/01/2020	Wet / Damp	Fatal	V1 was turning right from the A453 into the airport and V2 was travelling eastbound on A453
202000446	25/07/2020	Fine / Dry	Slight	V1 was travelling westbound on the A453 and V2 was changing lanes travelling in the same direction
202200912	26/10/2022	Wet / Damp	Slight	V1 was turning right from the A453 into the airport and V2 was travelling eastbound on the A453.

2.12 The details show that of the three PICs, two were due to a vehicle turning right from the A453 into the airport colliding with an eastbound travelling vehicle. The right turn into the airport operates from a separately signalled green phase, with eastbound drivers held on a red signal in the same stage. As the junction is signal controlled and these movements occur in different stages, right turning vehicles are not required to give way to eastbound traffic. It therefore appears that one of the drivers has contravened a red signal causing the collision.

2.13 Whilst one of these PICs was fatal, it occurred during wet conditions and invovled a heavy goods vehicle. When considering there have only been two PICs occur due to

this manoeuvre over a 6-year period, both during wet weather conditions, it is considered that there are no significant safety problems at this junction that warrant further consideration in the Transport Assessment.

2.14 In addition, whilst there are no existing safety problems, the proposals involve installing a new pedestrian crossing at the junction and therefore further assessment of the location and type of crossing from an operational and safety perspective will be undertaken in the Transport Assessment.

J7 – A453/Grimes Gate Priority-Controlled Junction

2.15 **Figure 7** shows a detailed extract of the PIC records at the A453/Grimes Gate junction confirming there have been two recorded PICs over the latest 6-year period. Both the PICs were classified as slight. **Table 6** provides a summary of the recorded PICs.

Figure 7. Personal Injury Collisions at A453/Grimes Gate Junction

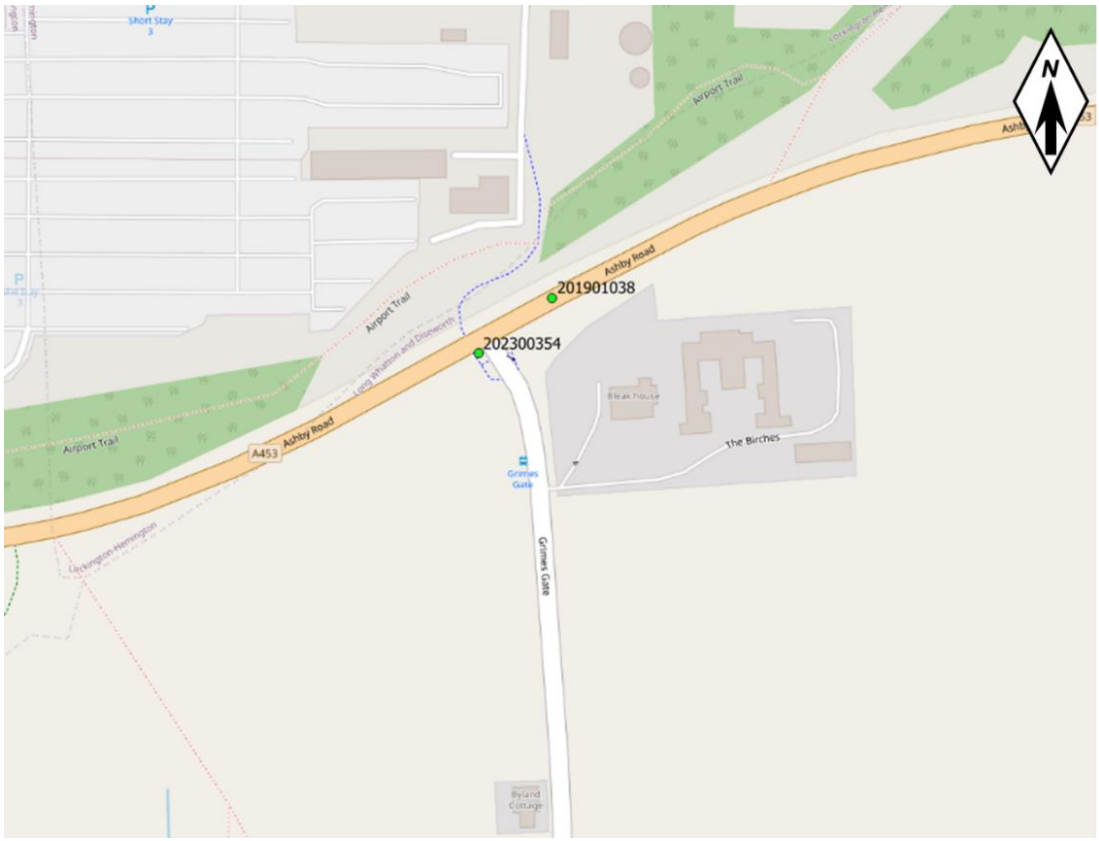


Table 6. Personal Injury Collision Data Summary (A453/Grimes Gate Priority-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901038	17/11/2019	Wet / Damp	Slight	V1 and V2 were travelling northeastbound on the A453. V1 attempted to overtake V2 causing a collision
202300354	15/05/2023	Fine / Dry	Slight	V1 (Motorcycle) was travelling northeastbound on the A453. V2 was travelling in the same direction resulting in a rear end shunt

2.16 The details show that there have been two recorded PICs, although only one was at the junction itself. With this and given both PICs were classified as slight and appear to be isolated incidents occurring 3.5 years apart, it is considered that there are no significant safety problems at this junction and no further assessment of highway safety will be undertaken within the Transport Assessment.

J8 – A453/The Green Priority-Controlled Junction

2.17 **Figure 8** shows a detailed extract of the PIC records at the A453/The Green junction confirming there have been four recorded PICs over the latest 6-year period. All the four PICs were classified as slight. **Table 7** provides a summary of the recorded PICs.

Figure 8. Personal Injury Collisions at A453/The Green Junction



Table 7. Personal Injury Collision Data Summary (A453/The Green Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901277	27/06/2019	Fine / Dry	Slight	V1 was turning right from the A453 into The Green. V2 was travelling westbound on the A453 and V3 was waiting to turn right from The Green to the A453 east
202200634	02/08/2022	Wet / Damp	Slight	V1 was attempting to stop when travelling eastbound on the A453. V2 and V3 were travelling in the same direction and collided with V1.
202200862	10/10/2022	Wet / Damp	Slight	V1 (Goods 7.5 Tonnes MGW) was travelling eastbound on the A453. V2 was waiting to turn right from the A453 into The Green
202400733	13/08/2024	Fine / Dry	Slight	V1 was turning right from the A453 into The Green. V2 was travelling westbound on the A453 and collided into the rear

2.18 The details show all four PICs were due to right turning movements from the A453 into The Green either through side on collisions with opposing vehicles or rear end shunts. All four collisions were classified as slight and occurred in daylight conditions, meaning there appear to be no issues caused during hours of darkness. Two of the four PICs

occurred during wet conditions. The junction is located within a dip on the A453 with approaching vehicles travelling downhill from both sides. Looking at historic Google Street View records, the tourist sign to the 'Queen's Head' highlighting a left turn into The Green from the east was obstructed by overgrown vegetation until 2023 and since then there have been no PICs occurring through westbound travelling vehicles. There appear to have been improvements to the warning signs for eastbound vehicles between 2017 and 2020. Whilst improvements to signage and visibility have occurred over the last 5 years, given that four PICs have occurred due to right turning movements, further assessment of highway safety will be undertaken in the Transport Assessment at this location.

J9 – A453/East Midlands Airport Roundabout

2.19 **Figure 9** shows a detailed extract of the PIC records at the A453/East Midlands Airport roundabout confirming there has been a single recorded PIC over the latest 6-year period, which was classified as slight. **Table 8** provides a summary of the recorded PIC.

Figure 9. Personal Injury Collisions at A453/East Midlands Airport Junction



Table 8. Personal Injury Collision Data Summary (A453/East Midlands Airport Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202200609	25/07/2022	Wet / Damp	Slight	V1 was leaving the roundabout travelling eastbound on A453 and lost control

2.20 The details show that there has only been one recorded PIC at the A453/East Midlands Airport roundabout and invovled a single vehicle that lost control. The PIC was classified as slight. With the low number of PICs at the junction, it is considered that there are no significant highway safety impacts and no further assessment will be undertaken within the Transport Assessment.

J10 – A453/Walton Hill Signal-Controlled Junction

2.21 **Figure 10** shows a detailed extract of the PIC records across the A453/Walton Hill signal-controlled junction confirming there have been two recorded PICs over the latest 6-year period both of which were classified as slight. **Table 9** provides a summary of the recorded PICs.

Figure 10. Personal Injury Collisions at A453/Walton Hill Signal-Controlled Junction



Table 9. Personal Injury Collision Data Summary (A453/Walton Hill Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202100382	02/06/2021	Fine / Dry	Slight	V1 and V3 were travelling southbound around a left hand bend and collided with V2 which was travelling northbound
202100781	03/10/2021	Fine / Dry	Slight	V1 was turning right from Walton Hill into the SuperBike Factory and collided with V2 which was turning right from the SuperBike Factory onto Walton Hill

2.22 The details show that there have only been two recorded PICs at the A453/Walton Hill junction both of which were classified as slight. The causation of the PICs was due to turning movements from different arms. With this and given the low number of PICs at the junction over a 6-year period, it is considered that there are no significant highway safety impacts, and no further assessment will be undertaken within the Transport Assessment.

J11 – A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout

2.23 **Figure 11** shows a detailed extract of the PIC records at the A42 Junction 14 on-slip/Top Brand/Gelscoe Lane roundabout and on approach from the A453. It confirms there have been three recorded PICs over the latest 6-year period with two PICs being slight and one as fatal in severity. **Table 10** provides a summary of the recorded PICs

Figure 11. Personal Injury Collisions at A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout

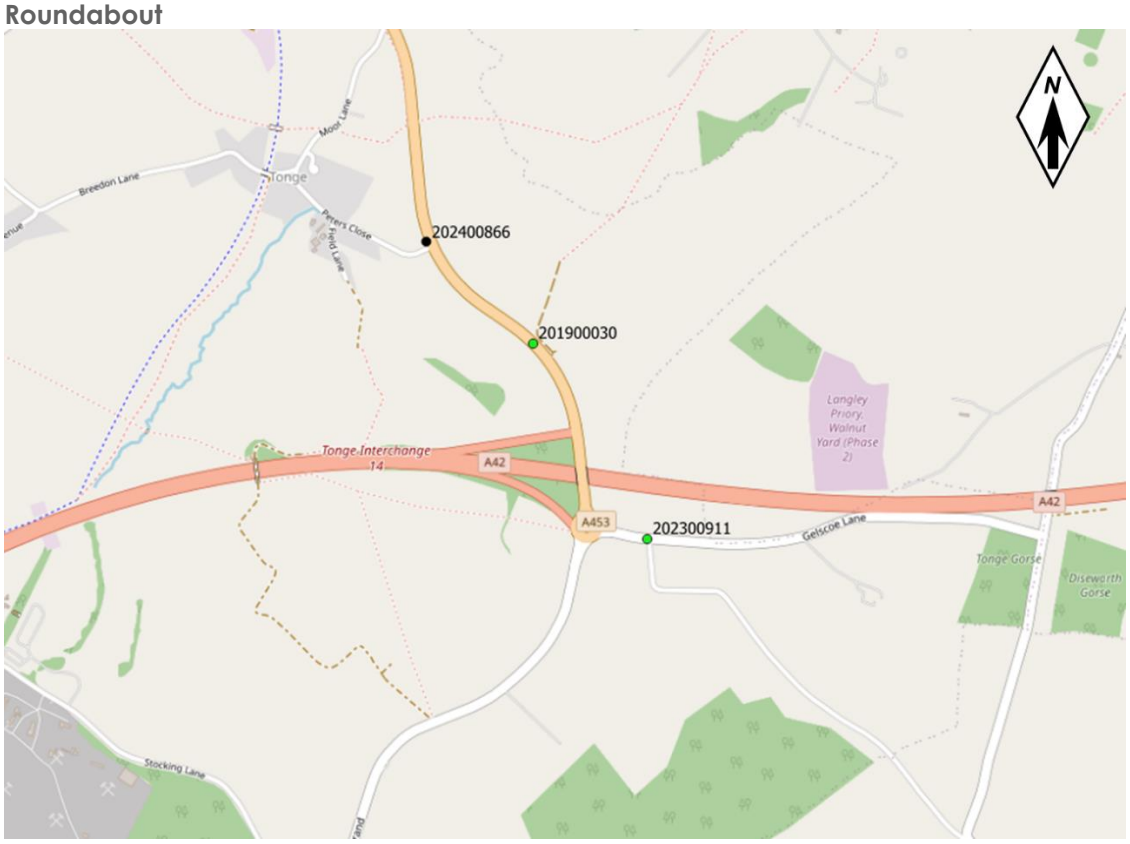


Table 10. Personal Injury Collision Data Summary (A453/Walton Hill Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900030	16/01/2019	Wet / Damp	Slight	V1 was travelling northbound on the A453 around the left-hand bend and collided with V2 which was travelling southbound on the A453
202300911	29/09/2023	Fine / Dry	Slight	V2 was joining Gelscoe Lane after travelling through the roundabout in the eastbound direction and collided with V1 which was turning left at the roundabout from Top Brand to the A42
202400866	17/09/2024	Fine / Dry	Fatal	V1 was travelling northbound on the A453 and lost control. No other vehicles were involved

2.24 The details show that there have been three recorded PICs on the network in the vicinity of the A42/Top Brand/Gelscoe Lane junction. All three was isolated incidents with two classified as slight. There has been a single fatality occur on 17/09/24 which involved a single vehicle travelling northbound on the A453 and appears to be due to loss of control. Whilst regrettable, this is the only PIC that has occurred at this location during the 6-year period and so it is considered in isolated incident. Consequently, there are

considered to be no significant highway safety issues at this location and no further assessment of highway safety will be undertaken within the Transport Assessment.

J12 – M1 Junction 23

2.25 **Figure 12** shows a detailed extract of the PIC records at M1 Junction 23 confirming there have been nine recorded PICs over the latest 6-year period, seven of which were classified as slight and the remaining two as serious. **Table 11** summarises each of the recorded PICs in further detail.

Figure 12. Personal Injury Collisions at M1 Junction 23



Table 11. Personal Injury Collision Data Summary (M1 Junction 23)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000492	09/02/2020	Wet / Damp	Slight	V1 and V2 were approaching the junction from Ashby Road East and collided whilst stopping at the junction
202000881	10/11/2020	Fine / Dry	Slight	V1 and V2 collided when attempting to decelerate when approaching the roundabout from the A512
202100046	25/01/2021	Frost / Ice	Slight	V1 and V2 collided when decelerating on approach to the junction from the M1 northbound off-slip
202100568	30/07/2021	Wet / Damp	Slight	V1 was travelling eastbound on the A512 away from the roundabout and lost control. No other vehicle was involved.
202200748	06/09/2022	Wet / Damp	Slight	V1 was changing lane on the M1 northbound off-slip and collided with V2 travelling in the same direction.
202201031	20/11/2022	Fine / Dry	Slight	V1 was changing lane on the roundabout travelling to the A512 and collided with V2 which was travelling in the same direction
202400235	15/03/2024	Fine / Dry	Serious	V1 was changing lanes on the M1 northbound off-slip and collided with V2 travelling in the same direction
202400297	04/04/2024	Fine / Dry	Slight	V1 was exiting the M1 onto the northbound off-slip and collided with V2 travelling in the same direction
202400698	01/08/2024	Fine / Dry	Serious	V1 (goods vehicle over 3.5T) was held up approaching the roundabout travelling from the A512 to Ashby Road East and collided with V2 entering the roundabout from north to south

2.26 The details show that of the nine recorded PICs, three were recorded at the A512 (albeit one was travelling away from the junction), four PICs were recorded on the M1 northbound off slip, whilst the remaining three PICs occurred on the circulatory and Ashby Road East arm. Two of the PICs were due to vehicles changing lanes on the M1 northbound off-slip, however this arm would not be impacted by the proposed development. Overall, there is no specific location where a cluster of PICs have occurred and the details show a mix of causes with no specific trends. On this basis and given this is a junction on the Strategic Road Network that carries a significant volume of traffic, it is considered that there are no on-going highway safety issues at this junction and no further assessment will be undertaken in the Transport Assessment.

J13 – A50 Junction 1

2.27 **Figure 13** shows a detailed extract of the PIC records at A50 Junction 1 confirming there have been five recorded PICs over the latest 6-year period, three of which were classified as slight, one as serious and one as fatal. **Table 12** summarises each of the recorded PICs in further detail.

Figure 13. Personal Injury Collisions at A50 Junction 1

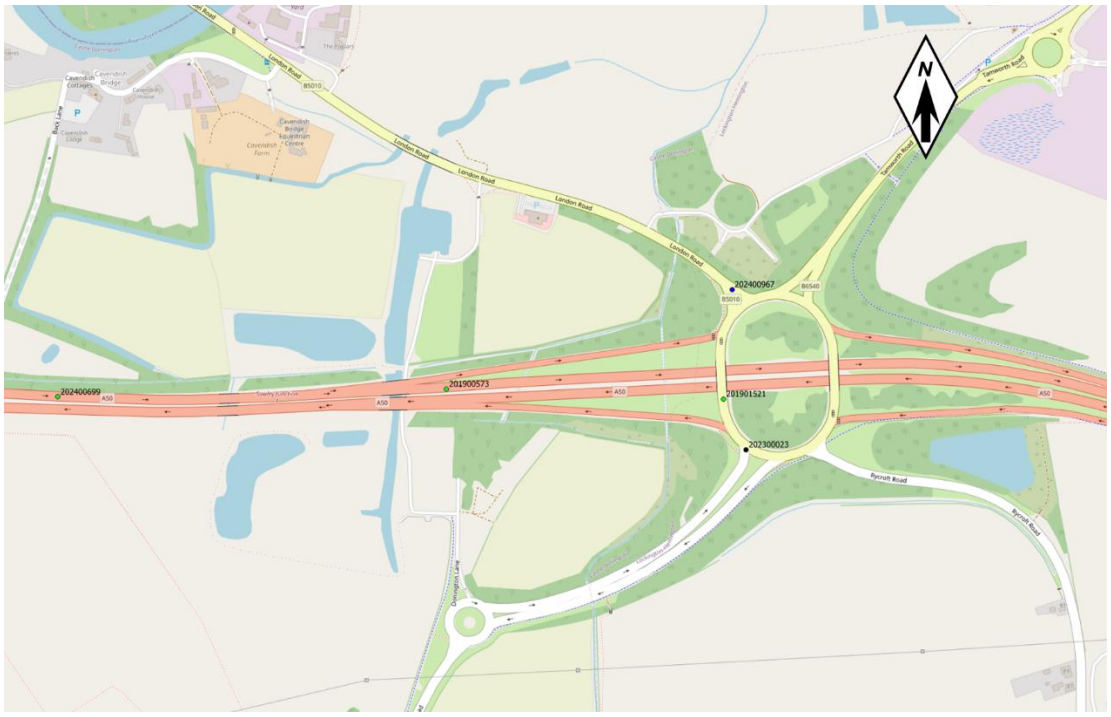


Table 12. Personal Injury Collision Data Summary (A50 Junction 1)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900573	19/03/2019	Fine / Dry	Slight	V1 was moving into the left/nearside lane travelling eastbound on the A50 mainline. No other vehicles were invovled
201901521	18/02/2019	Fine / Dry	Slight	V1 and V2 collided when travelling north on the roundabout circulatory
202300023	09/01/2023	Fine / Dry	Fatal	V1 was travelling to the A50 westbound on-slip and collided with V2 which was joining the roundabout from Trent Lane
202400699	30/07/2024	Fine / Dry	Slight	V1 was travelling eastbound on the A50 main line away from the junction. No other vehicles were involved
202400967	15/10/2024	Fine / Dry	Serious	V1 was changing lane when approaching the roundabout from London Road and collided with V2 travelling in the same direction

2.28 The details show that all five PICs occurred at different parts of the junction, or on the A50 mainline. A number of the PICs occurred through driver error when changing lanes. Whilst there has been a single fatal collision close to the Trent Lane entry to the roundabout, this appears to be an isolated incident. Furthermore, there is an approved scheme to signalise this arm of the junction, which would negate the need for drivers to give-way at this location and therefore remove conflicting movements. Overall, it is

considered that there are no significant safety issues and therefore no further assessment will be undertaken at this junction within the Transport Assessment.

J14 – M1 Junction 25

2.29 **Figure 14** shows a detailed extract of the PIC records at M1 Junction 25 confirming there have been 18 recorded PICs over the latest 6-year period, 12 of which were classified as slight, four were classified as serious and two fatal. **Table 13** summarises each of the recorded PICs in further detail.

Figure 14. Personal Injury Collisions at M1 Junction 25

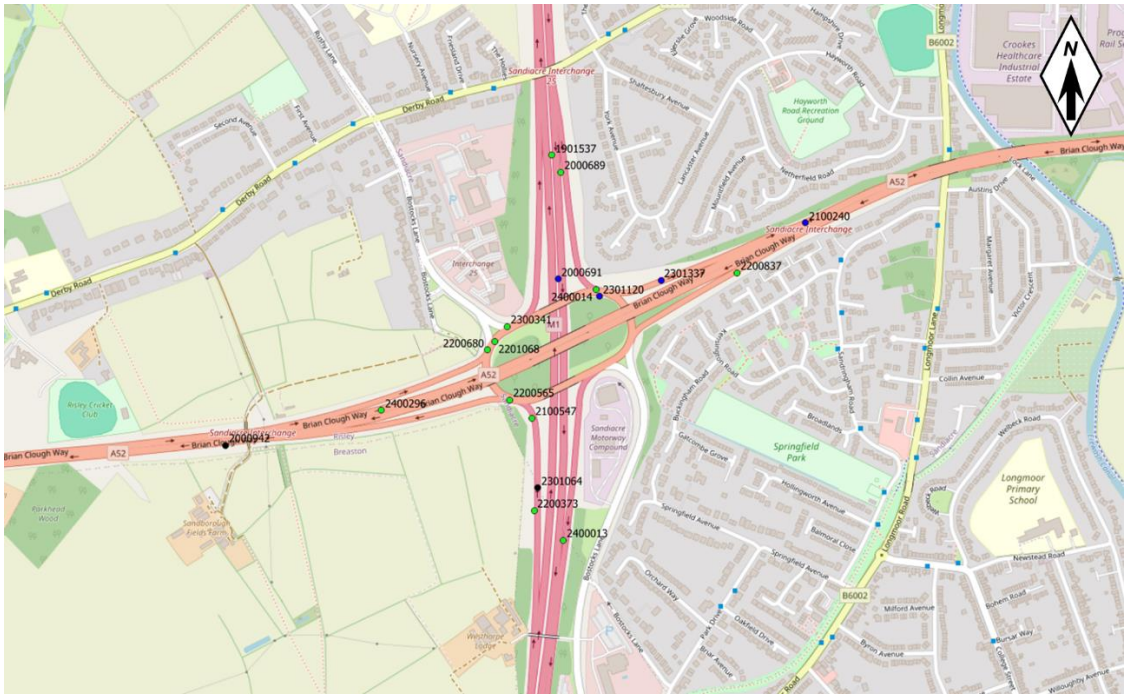


Table 13. Personal Injury Collision Data Summary (M1 J25)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
1901537	02/10/2019	Fine / Dry	Slight	V1 was changing lanes travelling on the A52 northbound on-slip and collided with V2 travelling in the same direction
2000689	20/05/2020	Fine / Dry	Slight	V1 attempts to move from lane 2 into lane 1 to leave the motorway and between two HGVs, misses the exit and collides with the barrier
2000691	18/06/2020	Wet / Damp	Serious	V1 was travelling on the M1 southbound mainline and lost control in lane 4 and collided with the central reservation causing it veer across the motorway and into V2
2000942	22/08/2020	Fine / Dry	Fatal	V1 was travelling westbound on the A52 at 16:55 and veered to nearside for unknown reasons, lost control and collided with a tree

2100240	24/10/2020	Raining / Flood	Serious	V2 was merging onto the A52 eastbound. V1 was travelling eastbound on the A52 mainline. V2 and collides with a nearside barrier and rebounds into the carriageway. V1 collides with rear of V2
2100547	29/03/2021	Fine / Dry	Slight	V2 was stationary at the traffic lights in lane 2 on M1 northbound off-slip. V1 moved into lane 2 colliding with rear of V2
2200373	01/03/2022	Fine / Dry	Slight	V2 was travelling on the M1 northbound off-slip to join the A52 and was held up in queuing traffic. V1 approached from the rear and collided with V2
2200565	03/04/2022	Fine / Dry	Slight	V2 was on the roundabout circulatory and missed the exit and proceeded to travel around roundabout for second time. V1 was in the wrong lane and cut across the path of V2
2200680	23/04/2022	Fine / Dry	Slight	V2 was travelling to Bostocks Lane north in the inside lane, V1 entered the roundabout heading to the A52 eastbound and collided withV2
2200837	19/05/2022	Fine / Dry	Slight	V1 was approaching the A52 westbound off-slip and fails to see V2 and V3 already stationary due to build up of traffic on exit slip. V1 collides with the rear of V2, which is pushed forward into rear of V3.
2201068	24/06/2022	Fine / Dry	Slight	V2 was on the roundabout circulatory and started to move on a green signal. V1 overtook V2 and changed lanes; proceeded then to change lanes again and then collided with V2.
2300341	26/02/2023	Fine / Dry	Slight	V1 was travelling southbound from Bostocks Lane north towards the roundabout when V2 collided with the rear of V1.
2301064	28/04/2023	Raining / Wet	Fatal	Unknown vehicle has collided with a male pedestrian in the early hours (04:42am) on the M1 northbound off-slip.
231120	22/07/2023	Raining / Wet	Serious	V1 was travelling from Bostock Lane north to Bostock Lane south at excessive speed and failed to stop at the junction and collides with furniture and trees
2301337	27/08/2023	Fine / Dry	Serious	V1 was going ahead southwest to northeast when it was cut up by V2 causing V1 to take evasive action, leaving the carriageway nearside and rolled.
2400013	05/11/2023	Fine / Dry	Slight	V1 was travelling southbound on the M1 mainline and collided with V2 which was changing lanes
2400014	22/11/2023	Fine / Dry	Slight	V1 was held turning left from the M1 north to the A52 eastbound. V2 was travelling in the same direction and collided with the rear of V1. The collision occurred during hours of darkness

2400296	22/02/2024	Wet / Damp	Slight	V1 was travelling eastbound on the A52 mainline and collided with the rear of V2 in slow moving traffic.

2.30 The details show that whilst there has been a total of 18 recorded PICs, there are no specific locations where clusters of PICS have occurred. Whilst two fatal PICs have occurred, one involved a single driver losing control for unknown reasons, whilst the second involved a pedestrian walking on the slip road during hours of darkness. The fatal PICs therefore appear to be isolated incidents and not related to any physical defects of the junction. The remaining PICs are spread across all areas of the junction, with three PICs at the Bostocks Lane (N) arm, all of which were classified as slight and were a result of rear end shunt, changing lanes and turning movements on the circulatory and therefore show no patterns. With this and given the junction forms part of the Strategic Road Network, with the M1 and accommodates a significant amount of traffic, it is considered that there are no significant safety problems and no further assessment into highway safety will be undertaken as part of the Transport Assessment.

J15 – Station Road/Broad Rushes Roundabout

2.31 **Figure 15** shows a detailed extract of the PIC records at Station Road/Broad Rushes roundabout in Castle Donington confirming there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one as serious. **Table 14** summarises each of the recorded PICs in further detail.

Figure 15. Personal Injury Collisions at Station Road/Broad Rushes Roundabout

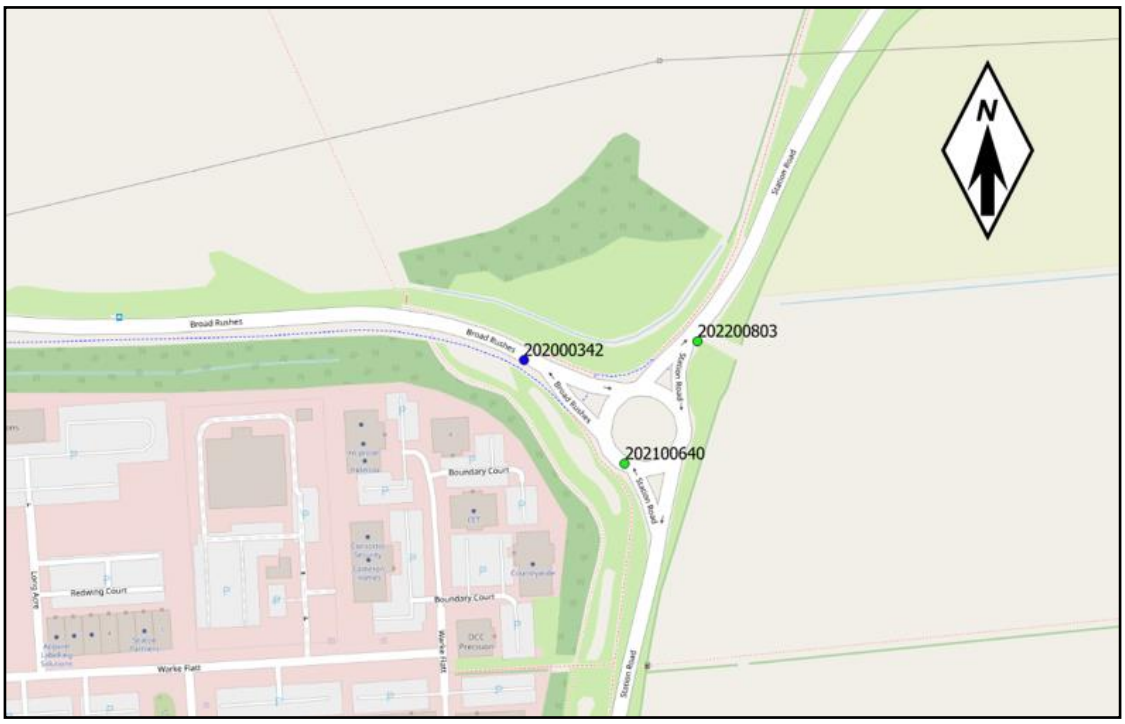


Table 14. Personal Injury Collision Data Summary (Station Road/Broad Rushes Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000342	23/06/2020	Fine / Dry	Serious	V1 (goods vehicle) collided with V2 (pedal cyclist) when attempting to overtake on Broad Rushes travelling east towards the roundabout
202100640	21/08/2021	Other / Dry	Slight	V1 was on the circulatory exiting at Broad Rushes and decided to change lane to the right and collided with V2 (motorcycle) that was travelling in the same direction
202200803	26/09/2022	Wet / Damp	Slight	V1 (motorcycle) was travelling towards the roundabout from Station Road N and collided with V2 (car) travelling north on Station Road N

2.32 The details show that there have been three recorded PICs at the Station Road/Broad Rushes roundabout, all of which occurred at different locations. Whilst they all involve pedal cyclists or motorcyclists, there are no trends and were due to overtaking, and movements on the circulatory. There appear to be no trends behind the PICs or any specific locations where clusters of PICs have formed. On this basis it is considered that there are no on-going highway safety problems at this location and no further assessment will be undertaken within the Transport Assessment.

J16 – A453/Kegworth Road Dumbbell Roundabouts

2.33 **Figure 16** shows a detailed extract of the PIC records near the A453/Kegworth Road dumbbell roundabouts confirming there have been five recorded PICs over the latest 6-year period, four of which were classified as slight and one as serious. **Table 15** summarises each of the recorded PICs in further detail.

Figure 16. Personal Injury Collisions at A453/Kegworth Road Dumbbell Roundabouts



Table 15. Personal Injury Collision Data Summary (A453/Kegworth Road Dumbbell Roundabouts

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
2D184622	07/10/2022	Fine / Dry	Slight	V1 was travelling northbound on Kegworth Road and lost control when negotiating the right-hand bend at its junction With Main Street
2D012221	24/01/2021	Snow	Slight	V1 was turning right at the roundabout from the north to Kegworth Road to the west and lost control
2D019922	06/02/2022	Fine / Dry	Slight	V2 was travelling southbound on the access road from Ratcliffe on Soar and collided with V2 travelling northbound on the same road
2D252119	19/12/2019	Fine / Dry	Slight	V1 was travelling northeastbound on the A453 and V2 was travelling in the same direction and collided with the rear of V1.
2D077923	28/05/2023	Fine, Dry	Serious	V1 was traveling northeastbound on A453 lost control, left the road and skidded.

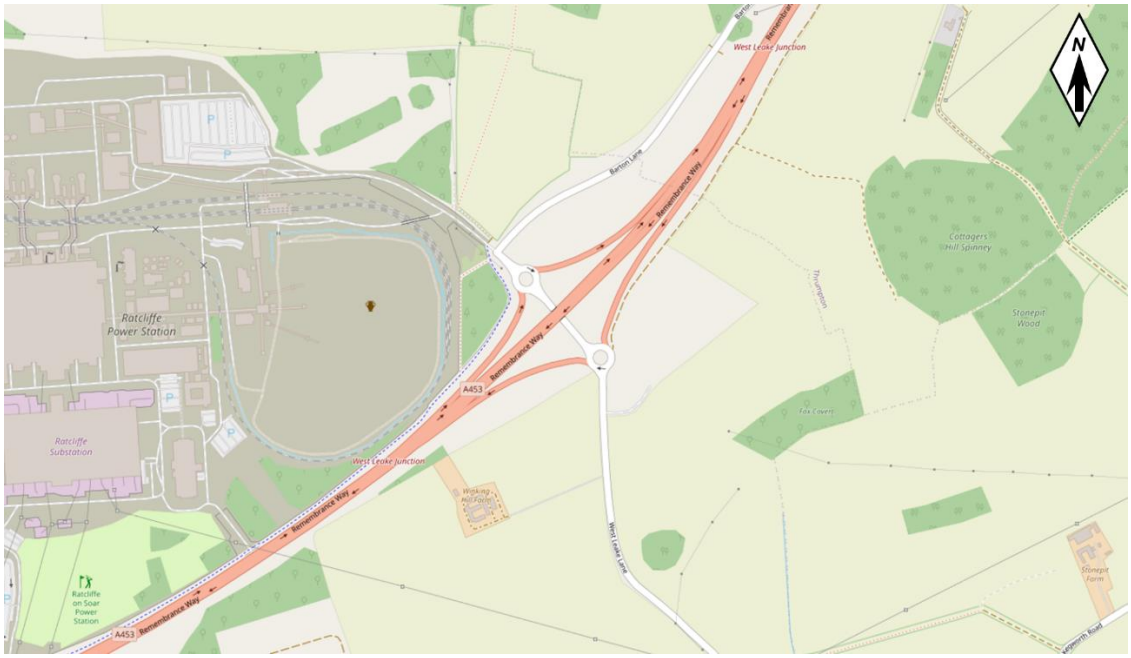
2.34 The details show that of five recorded PICs, only one occurred at the roundabouts themselves, two were on the A453 mainline, one on Kegworth Road, and another on the Ratcliffe Power Station access road. Four PICs were classified as slight and another

as serious. There are no patterns or locations where a cluster of PICs have occurred and on this basis, it is considered that there are no significant safety problems at the junction and no further assessment will be undertaken as part of the Transport Assessment.

J17 – A453/Barton Lane/West Leake Dumbbell Roundabouts

2.35 **Figure 17** shows a detailed extract of the PIC records across the A453/Barton Lane/West Leake Dumbbell roundabouts confirming there have been no recorded PICs over the latest 6-year period. It can therefore be concluded that there are no safety problems at this location and no further assessment will be undertaken within the Transport Assessment.

Figure 17. Personal Injury Collisions at A453/Barton Lane/West Leake Lane Roundabouts



Other Locations of Personal Injury Collision Clusters

M1 Mainline between Junctions 23A and 24

2.36 **Figure 18** shows a detailed extract of the PIC records on the M1 mainline between Junction 23A and Junction 24 confirming there have been five recorded PICs over the latest 6-year period, all of which were classified as slight. **Table 16** summarises each of the recorded PICs in further detail.

Figure 18. Personal Injury Collisions on M1 Mainline

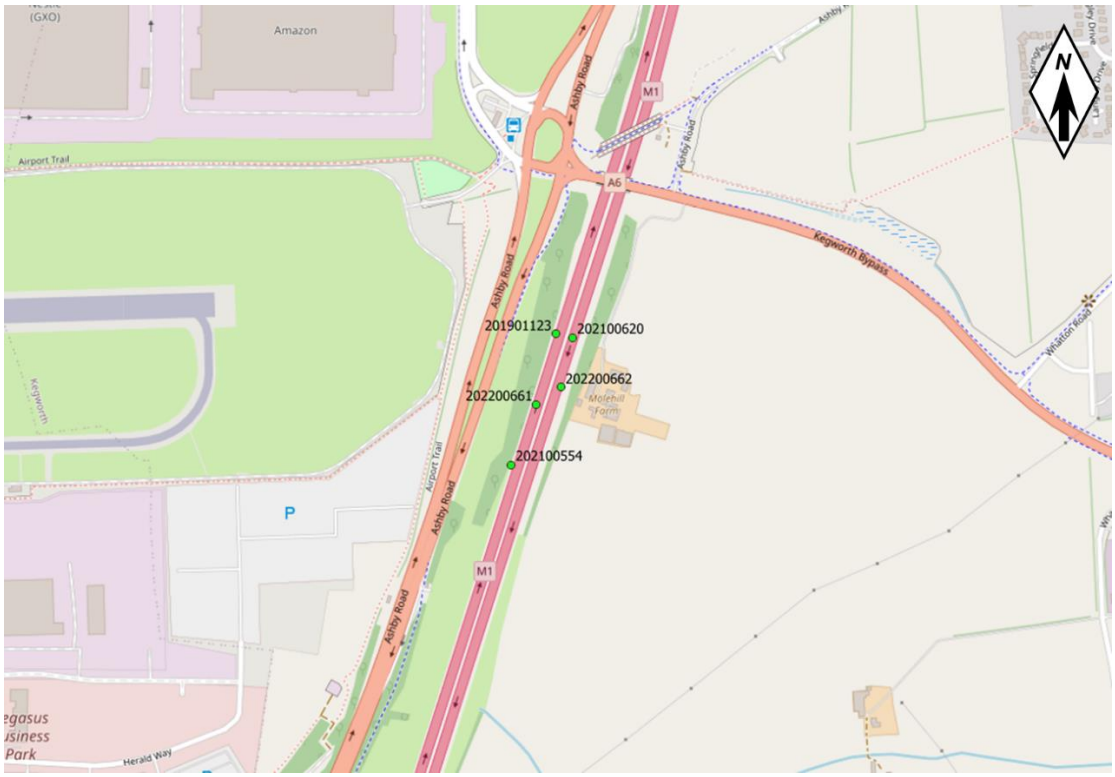


Table 16. Personal Injury Collision Data Summary (M1 Mainline)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901123	24/12/2019	Wet / Damp	Slight	V1 was travelling northbound on the M1 and lost control. No other vehicles were involved
202100554	27/07/2021	Wet / Damp	Slight	V1 and V2 were travelling northbound on the M1 and collided when V1 was changing lanes to the left
202100620	16/08/2021	Fine / Dry	Slight	V1 was travelling southbound on the M1 and collided with the rear of V2 which was being held up travelling in the same direction
202200661	11/08/2022	Fine / Dry	Slight	V1, V2, V3 and V4 were travelling northbound and collided with rear end shunts
202200662	11/08/2022	Fine / Dry	Slight	V1 was travelling southbound on the M1 and collided with V2 travelling in the same direction when changing lanes to the right

2.37 The details show that all five recorded PICs were classified as slight and caused due to a mixture of lane changing, rear end shunts and loss of control. The PICs were also balanced across the northbound and southbound carriageways. As such, there appear to be no common causal factors behind the PICs with the latest occurring in August 2022 and since then there has not been a single recorded PIC on this part of the network. On this basis, it is considered that there are no significant safety problems on this part of

the M1 mainline and no further assessment will be undertaken as part of the Transport Assessment.

A453/Moor Lane

2.38 **Figure 19** shows a detailed extract of the PIC records at the A453/Moor Lane confirming there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one serious. **Table 17** summarises each of the recorded PICs in further detail.

Figure 19. Personal Injury Collisions at A453/Moor Lane

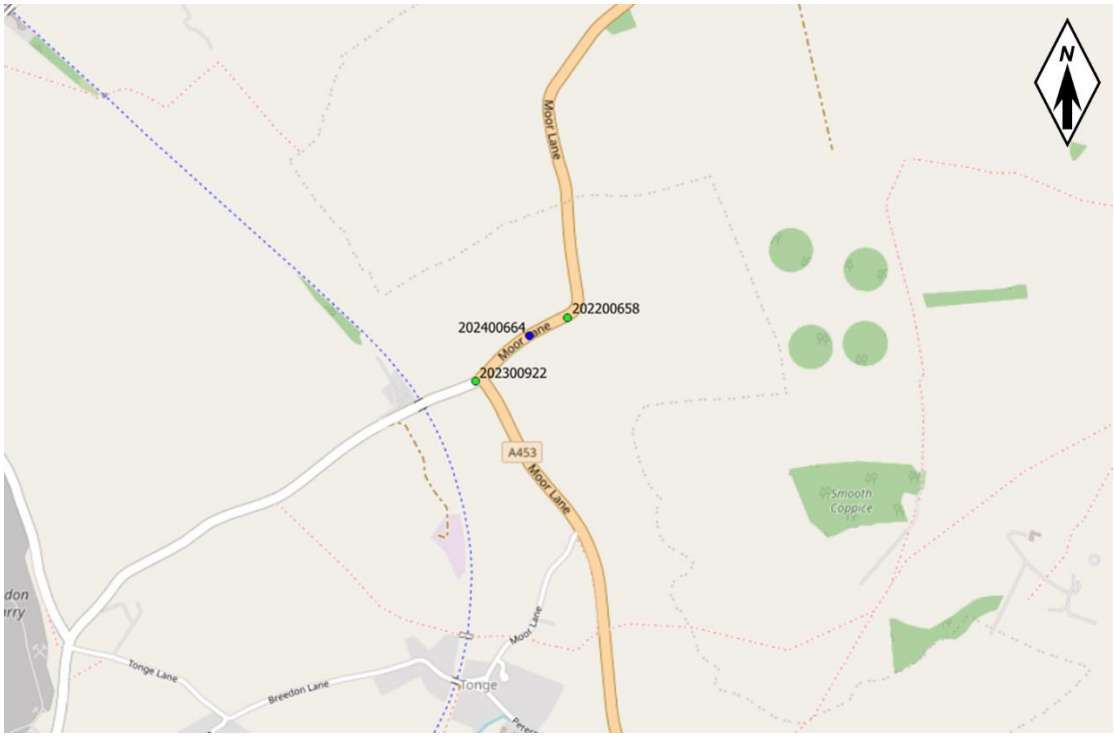


Table 17. Personal Injury Collision Data Summary (A453/Moor Lane)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202200658	10/08/2022	Fine / Dry	Slight	V1 was travelling southbound on the A453 around a right-hand bend losing control. The driver was a motorcyclist
202300922	01/10/2023	Wet / Damp	Slight	V1 and V2 were traveling eastbound on the A453 approaching the junction and collided due to a rear end shunt
202400664	19/07/2024	Fine / Dry	Serious	V1 was travelling southbound on the A453 and collided with V2 travelling northbound on the A453. The PIC was located away from the junction with Moor Lane

2.39 The details show that all three PICs were located on different parts of the network. One of the PICs was due to a motorcyclist losing control, whilst another was due to a rear end shunt between two cars and a third due to a head on collision. There are no patterns behind the PICs and consequently they appear to be isolated incidents. On this basis, it is considered that there are no significant safety problems on this part of the network and no further assessment will be undertaken as part of the Transport Assessment.

A453 Remembrance Way

2.40 **Figure 20** shows a detailed extract of the PIC records on the A453 Remembrance Way confirming there has been one fatal PIC recorded approximately 1.5km to the east of M1 Junction 24. **Table 18** summarises this PICs in further detail.

Figure 20. Personal Injury Collisions on Remembrance Way

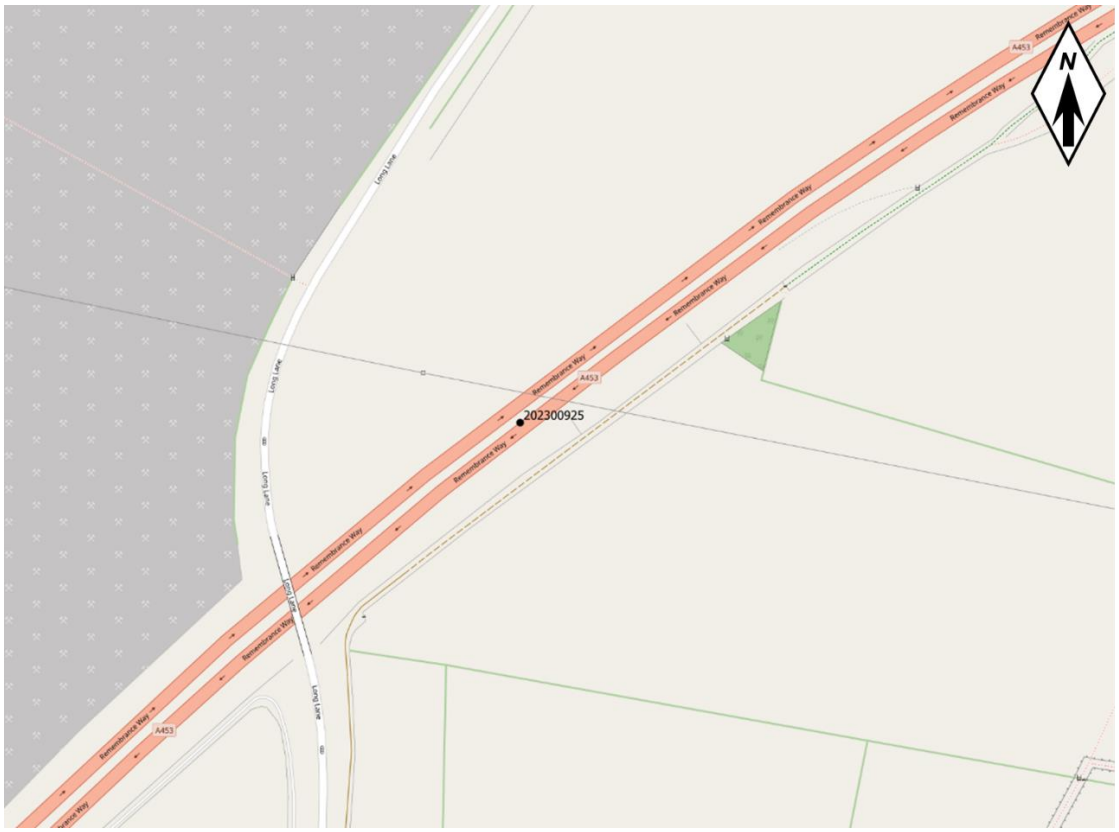


Table 18. Personal Injury Collision Data Summary (Remembrance Way)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202300925	01/10/2023	Wet / Damp	Fatal	V1 was travelling southwestbound on the A453 but held up and collided with V2 which was travelling in the same direction to the rear

2.41 The details show that this PIC occurred due to a rear end shunt collision on the A453 as a vehicle was held up approaching Junction 24. Whilst this resulted in fatal injuries, it appears to be an isolated incident with no other PICs occurring on this part of the network during the 6-year period. Therefore, whilst regrettable it is considered that there are no significant safety problems on this part of the network so whilst no further assessment of the highway safety will be undertaken at this location within the Transport Assessment consideration will be given to capacity improvements at Junction 24.

3. SUMMARY AND NEXT STEPS

3.1 This Highway Safety and Road Casualty Position Statement has reviewed Personal Injury Collision (PIC) data across the Strategic Road Network and local highway network in the vicinity of the East Midlands Gateway 2 development to understand whether there are any existing safety problems that could be exacerbated by the proposed development and hence require further consideration within the Transport Assessment. The PIC data was obtained from the relevant highway authorities for the latest 6-year period between 2019 and 2024.

3.2 It follows advice contained within the National Networks National Policy Statement (March 2024), and in particular Paragraphs 4.57 to 4.61 which relate to 'road safety'.

3.3 The PIC analysis has identified the following key locations where there could potentially be existing safety issues that require further consideration in the Transport Assessment:

- **EMG1 access junction** – a cluster of PICs have been recorded due to turning movements from the A6 to EMG1 colliding with drivers travelling southbound on the A453. One of the PICs was fatal.

- **M1 Junction 24** – a cluster of PICs have been recorded on the M1 northbound off-slip on approach to the roundabout. There are no known existing safety issues with the A50 northbound weaving section from Junction 24 as alluded to during the Public Consultation events.

- **A453/The Green** – a cluster of PICs have been recorded due to right turning movements from the A453 west into The Green. This appears to be due to the location of the junction within a dip in the carriageway and potential lack of signage or warnings.

3.4 The Transport Assessment will review these three locations in further detail to understand whether the proposed development is likely to generate traffic increases that could exacerbate any issues. Where traffic increases are expected, mitigation will be proposed to address any highway safety issues and ensure the proposed development would have no unacceptable impacts in accordance with the requirements of the National Planning Policy Framework and National Networks National Policy Statement.

3.5 The following proposals are being considered and proposed by the proposed development which should have a benefit from a highway safety perspective on the three key locations:

- Provision of a new free flow link between the M1 northbound and A50, which should reduce traffic on the M1 northbound off-slip and the level of congestion approaching the junction.

- Works to the EMG1 access junction by providing two lanes into EMG1 for vehicles travelling southbound on the A453. This presents an opportunity to make changes to the traffic signals to improve safety of the junction.

- Whilst not formally included in the proposed mitigation package at this stage of the process, further consideration of the A453/The Green junction will be undertaken such as the provision of additional signage and/or carriageway surfacing markings to improve the safety associated with right turning vehicles.

3.6 The remaining junctions and links across the study area appear to have no significant safety problems that should not be materially impacted by the proposed development, however highway safety will be considered as part of any new infrastructure improvements being proposed.

3.7 From a highway safety perspective, the details in this report will be taken and considered further in the following stages of work:

- Further analysis in the Transport Assessment
- Stage 1 Road Safety Audit
- Safety risk assessments to GG 104 for departures from standard on the Strategic Road Network
- Stages 2, 3 and 4 Road Safety Audits
- Walking, Cycling and Horse-Riding Assessments and Reviews

3.8 It therefore forms the first stage in an on-going process to consider and improve highway safety and road casualties on the surrounding network that could be impacted by the proposed development.

Appendix 1. National Networks National Policy Statement Road Safety Extracts

Department for Transport

National Networks National Policy Statement



March 2024

added would make that development unacceptable, particularly in relation to statutory environmental quality limits

4.52 The Secretary of State should not refuse consent because of pollution impacts unless there is good reason to believe that any relevant necessary operational pollution control permits or licences, or other consents would not be granted.

Common law nuisance and statutory nuisance

4.53 Section 158 of the Planning Act 2008 provides a defence of statutory authority in civil or criminal proceedings for nuisance. Such a defence is also available in respect of anything else authorised by an order granting development consent. This would include a defence for proceedings for nuisance under Part III of the Environmental Protection Act 1990 ("the 1990 Act") (statutory nuisance) but only to the extent that the nuisance is the inevitable consequence of what has been authorised.

4.54 The defence does not extinguish the local authority's duties under Part III of the 1990 Act to inspect its area and take reasonable steps to investigate complaints of statutory nuisance, and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence.

4.55 It is very important that, during the examination of a nationally significant infrastructure project, possible sources of nuisance under section 79(1) of the 1990 Act, and how they may be mitigated or limited, are considered by the Examining Authority so they can recommend appropriate requirements that the Secretary of State might include in any subsequent order granting development consent. More information on the consideration of possible sources of nuisance is at paragraphs 5.117 to 5.125.

4.56 When considering whether to include exceptions to the defence in an order granting development consent (section 158(3) of the Planning Act 2008), the Secretary of State should have regard to whether any nuisance is an inevitable consequence of the development.

Safety

Road Safety

4.57 Highways developments provide an opportunity to make significant safety improvements and significant incident reduction benefits when they are well designed. Some developments may have safety as a key objective, but even where safety is not the main aim of a development, the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Consideration should also be given to wider transport objectives, including expanding active travel, and creating safe and pleasant walking, wheeling and cycling environments. In developing roads schemes the applicant should have due regard to the needs of drivers and riders and the imperative to ensure road user safety. Schemes should be developed with a mindset that accounts for the need for motorists to rest, particularly Heavy Goods Vehicle drivers who need safe and secure roadside

facilities that also cater for their welfare needs including the appropriate provision of high-quality washrooms, a catering offer and access to alternative fuel and digital infrastructure.

4.58 The applicant should undertake an objective assessment of the impact of the proposed development on safety including the impact of any mitigation measures. This should use the methodology outlined in the guidance from Department for Transport's Transport Analysis Guidance and from National Highways. They should also put in place arrangements for undertaking the road safety audit process and ensuring their implementation. Road safety audits are a mandatory requirement for highway improvement schemes in the UK (including motorways). Road safety audits are intended to ensure that operational road safety experience is applied during the design and construction process so that the number and severity of collisions is as low as is reasonably practicable.

4.59 The applicant should be able to demonstrate that their scheme is consistent with government Road Safety policy and with the National Highways Safety Framework for the Strategic Road Network. Applicants must show that they have taken all steps that are reasonably required to minimise the risk of death and injury arising from their development, including:

- contributing to an overall reduction in road casualties
- contributing to an overall reduction in the number of unplanned incidents
- contributing to improvements in road safety for pedestrians and cyclists[95]

4.60 The applicant must also demonstrate that:

- they have considered the safety implications of their project from the outset
- they are putting in place rigorous processes for monitoring and evaluating safety

4.61 The Secretary of State should not grant development consent unless satisfied that all reasonable steps have been taken and will be taken to:

- minimise the risk of road casualties arising from the scheme
- contribute to improvements in the safety of the strategic road network

Rail Safety

4.62 It is the government's policy, supported by legislation, to ensure that the risks of passenger and workforce accidents are reduced so far as reasonably practicable. Rail schemes should take account of this and seek to further improve safety at every opportunity and where there is value for money in doing so.

4.63 The rail industry is required by law to consider the impact on safety of any proposed changes to the rail network through rigorous risk assessment. The principle of "so far as is reasonably practicable" is applied through the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) which are enforced by the Office of Rail and Road[96]. The rail industry is also required by legislation to comply with applicable Common Safety Methods. This

Appendix 2. Personal Injury Collision Data (Leicestershire County Council network)

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection: **Notes:**

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900030	16/01/2019	442450	322838	Other	Wet/Damp	Darkness: no street lighting	Slight

Location: A453 BREEDON ON THE HILL APPROX 250 NORTH WEST JW A42

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900204	06/02/2019	447466	328064	Fine without high winds	Wet/Damp	Daylight	Slight

Location: M1 LOCKINGTON-HEMINGTON JW M1 NORTHBOUND ON-SLIP JUNCTION 24

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead other	S	N
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead other	S	N
Goods 7.5 tonnes mgw and over	Entering from slip road	Going ahead left bend	S	N
Car	Jct Approach	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900471	13/05/2019	447300	326389	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD KEGWORTH ROUNDABOUT JW KEGWORTH BYPASS

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Starting	E	NE
Car	Entering roundabout	Starting	E	NE
Goods 7.5 tonnes mgw and over	Mid Junction - on roundabout or main road	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900573	19/03/2019	445040	329440	Fine without high winds	Dry	Daylight	Slight

Location: A50 EASTBOUND CASTLE DONINGTON AT JUNCTION 1 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods over 3.5 tonnes and under 7.5 tonnes mgw	Mid Junction - on roundabout or main road	Changing lane to left	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900684	29/06/2019	446885	323821	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: M1 NORTHBOUND LONG WHATTON & DISEWORTH MARKER POST 181/4A

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to right	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900692	23/07/2019	444777	328130	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	NW	N

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900725	23/07/2019	444590	328170	Fine without high winds	Dry	Daylight	Serious

Location: TRENT LANE CASTLE DONINGTON JW WILLOW ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900830	28/08/2019	448900	319585	Other	Wet/Damp	Darkness: street lights present and lit	Serious

Location: M1 NORTHBOUND SHEPSHED AT MARKER 176/7.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900889	17/09/2019	446785	325441	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON AND DISEWORTH 500M EAST OF BEVERLEY ROAD JUNCTION

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Going ahead other	W	E
Taxi/Private hire car	Not at, or within 20M of Jct	Going ahead but held up	E	W
Car	Not at, or within 20M of Jct	Going ahead but held up	E	W
Other vehicle - specify	Not at, or within 20M of Jct	Going ahead but held up	E	W
Other vehicle - specify	Not at, or within 20M of Jct	Going ahead but held up	E	W

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901038	17/11/2019	445284	325302	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON 30 METRES NORTH EAST OF C8204 GRIMES GATE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901123	24/12/2019	447291	326175	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: M1 NORTHBOUND KEGWORTH MARKER POST 183/8A

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901126	27/12/2019	447019	325205	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND MARKER POST 182/8B

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901163	22/10/2019	447445	327510	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	E	W
Goods 7.5 tonnes mgw and over	Leaving roundabout	Changing lane to left	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901190	13/11/2019	443367	328149	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: ARUNDEL AVENUE CASTLE DONINGTON EXACT LOCATION UNKNOWN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Stopping	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901200	13/11/2019	446680	323740	Fine without high winds	Wet/Damp	Daylight	Slight

Location: C8214 WEST END LONG WHATTON 50M W LONG MEADOW LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NW	E
Car	Not at, or within 20M of Jct	Going ahead right bend	E	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901277	27/06/2019	444495	325270	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW ROAD TO DISEWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	W	S
Car	Mid Junction - on roundabout or main road	Going ahead other	E	W
Car	Jct Approach	Waiting to turn right	S	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901521	18/02/2019	445400	329430	Fine without high winds	Dry	Daylight	Slight

Location: A50 ROUNDABOUT LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901523	23/02/2019	447530	327555	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: M1 KEGWORTH NR JUNCTION 24. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901547	28/04/2019	444640	325250	Fine without high winds	Dry	Daylight	Slight

Location: A453 CASTLE DONINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901566	13/07/2019	448645	328665	Fine without high winds	Dry	Daylight	Slight

Location: LONG LANE KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901591	22/10/2019	447725	327725	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH NR M1. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	SW	NE
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000018	17/01/2020	448125	328034	Fine without high winds	Dry	Darkness: no street lighting	Serious

Location: A453 GREEN LANE 90 METRES SOUTH WEST OF DOWELL'S BARN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods over 3.5 tonnes and under 7.5 tonnes mgw	Not at, or within 20M of Jct	Parked	Parked	Parked
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NE	SW
Car	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000165	21/01/2020	445595	325390	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Fatal

Location: A453 ASHBY ROAD LONG WHATTON AT ENTRANCE TO AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Agricultural vehicle	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Vehicle Passenger	Fatal
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000342	23/06/2020	444875	328915	Fine without high winds	Dry	Daylight	Serious

Location: BROAD RUSHES CASTLE DONINTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	W	E
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000434	22/07/2020	444770	328105	Fine without high winds	Dry	Daylight	Serious

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	N	Parked
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000446	25/07/2020	445580	325380	Fine without high winds	Dry	Daylight	Slight

Location: A453 LONG WHATTON AT ENTRANCE TO AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	E	W
Car	Cleared junction or waiting/parked at junction exit	Changing lane to left	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000492	09/02/2020	448975	318305	Raining with high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A512 ASHBY ROAD EAST SHEPSHED AT JUNCTION 23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Stopping	W	E
Car	Jct Approach	Stopping	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000564	19/03/2020	446940	325230	Fine without high winds	Wet/Damp	Darkness: street lighting unknown	Slight

Location: A42 NORTHBOUND EXIT SLIPROAD FROM JUNCTION 23A.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Parked	Parked	Parked
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Overtaking stat vehicle O/S	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000589	09/08/2020	448225	327082	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000596	05/08/2020	447495	327455	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND KEGWORTH AT J24 OFFSLIP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Stopping	S	N
Car	Jct Approach	Going ahead but held up	S	N
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	S	N
Goods 7.5 tonnes mgw and over	Jct Approach	Going ahead but held up	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Serious
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000627	20/08/2020	445290	325090	Fine without high winds	Dry	Daylight	Slight

Location: C8204 GRIMES GATE DISEWORTH AT ENTRANCE TO BYLANDS COTTAGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Reversing	W	E
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000881	10/11/2020	449195	318315	Fine without high winds	Dry	Darkness: street lights present but unlit	Slight

Location: A512 ASHBY ROAD LOUGHBOROUGH JW M1 JUNCTION 23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Stopping	E	W
Car	Entering roundabout	Stopping	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001164	14/10/2020	444300	328215	Fine without high winds	Dry	Daylight	Serious

Location: TRENT LANE CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	E	W

Casualties:

Class	Severity
Pedestrian	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001233	04/12/2020	447100	328845	Fine without high winds	Dry	Daylight	Serious

Location: MAIN STREET LOCKINGTON JW WARREN LANE EXACT LOCATION & DIRECTION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SE	NW

Casualties:

Class	Severity
Vehicle Passenger	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001238	10/12/2020	444745	327865	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001249	17/12/2020	444855	328425	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100046	25/01/2021	449035	318250	Other	Frost/Ice	Daylight	Slight

Location: M1 NORTHBOUND EXIT SLIPROAD SHEPSHED AT JUNCTION 23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Stopping	S	N
Car	Jct Approach	Stopping	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100116	08/03/2021	446820	330620	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON-HEMINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100148	23/03/2021	448250	326730	Fine without high winds	Dry	Daylight	Slight

Location: C8211 ASHBY ROAD KEGWORTH NEXT TO NUMBER 22.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Leaving main road	Reversing	S	N

Casualties:

Class	Severity
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100163	31/03/2021	447430	326555	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH AT MARLER 184/2.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100191	12/04/2021	447650	327705	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 REMEMBRANCE WAY KEGWORTH AT EXIT FROM M1 JUNCTION 24 ROUNDABOUT

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Turning left	N	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100207	08/04/2021	447300	326430	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 KEGWORTH ON ROUNDABOUT WITH KEGWORTH BY-PASS

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	S
Car	Leaving roundabout	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100249	25/04/2021	448965	319387	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND SHEPSHED AT MARKER 176/5.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Taxi/Private hire car	Not at, or within 20M of Jct	Changing lane to right	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	Parked	Parked
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100259	29/04/2021	444775	328105	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning right	W	S
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100273	05/05/2021	444285	328805	Fine without high winds	Wet/Damp	Daylight	Slight

Location: BROAD RUSHES CASTLE DONINGTON JW BACK LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	SW	NE

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100299	12/05/2021	446365	330255	Fine without high winds	Wet/Damp	Daylight	Serious

Location: B6540 TAMWORTH ROAD LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100303	12/05/2021	447410	327110	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH APPROACHING JW A50.EXACT LOCATION NOT PROVIDED.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100367	28/05/2021	447515	327190	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH AT MP185/0.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Changing lane to right	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100382	02/06/2021	443010	325745	Fine without high winds	Dry	Daylight	Slight

Location: C8214 HILL TOP CASTLE DONINGTON OUTSIDE ENTRANCE TO RACE TRACK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NE	S
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead left bend	NE	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100407	10/06/2021	447760	322145	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND LONG WHATTON AT MARKER 179/5

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead other	NW	SE
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Changing lane to right	NW	SE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100432	16/06/2021	447295	326405	Fine without high winds	Dry	Daylight	Serious

Location: A453 KEGWORTH JW KEGWORTH BY-PASS.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	S
Car	Entering roundabout	Starting	E	W
Car	Entering roundabout	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100476	27/06/2021	447475	326690	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking nearside	N	S
Car	Not at, or within 20M of Jct	Parked	Parked	Parked

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100554	27/07/2021	447230	325990	Raining without high winds	Wet/Damp	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH APPROX 1 MILE S JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100568	30/07/2021	449350	318345	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A512 ASHBY ROAD LOUGHBOROUGH APPROX 150M E M1.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100620	16/08/2021	447315	326170	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH AT MARKER 183/8.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead but held up	N	S

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100635	21/08/2021	448650	326885	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: BOROUGH STREET KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NE	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100640	21/08/2021	444925	328865	Other	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW BROAD RUSHES.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Changing lane to right	N	W
Motorcycle over 500cc	Leaving roundabout	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100670	03/09/2021	446927	325332	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 FINGER FARM ROUNDABOUT LONG WHATTON AT EXIT FROM A42.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100673	03/09/2021	447490	328075	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND LOCKINGTON NR J24 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Car	Jct Approach	Changing lane to right	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100682	06/09/2021	447385	328500	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND KEGWORTH APPROACHING J24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100694	10/09/2021	446965	325350	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 JUNCTION 23A ROUNDABOUT LONG WHATTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead but held up	NW	S
Car	Leaving roundabout	Starting	NW	SW

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100699	11/09/2021	447505	327350	Fine without high winds	Dry	Daylight	Slight

Location: M1 JUNCTION 24 NORTHBOUND OFF SLIPROAD KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100773	28/09/2021	444505	327285	Fine without high winds	Dry	Daylight	Serious

Location: MARKET STREET CASTLE DONINGTON JW BONDGATE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning left	N	E

Casualties:

Class	Severity
Pedestrian	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100781	03/10/2021	443015	325625	Fine without high winds	Dry	Daylight	Slight

Location: C8214 HILL TOP CASTLE DONINGTON AT ENTRANCE TO DONINGTON PARK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	N	W
Motorcycle over 500cc	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100812	13/10/2021	447120	331070	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON-HEMINGTON AT RIVER BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100872	29/10/2021	445490	327580	Fine without high winds	Wet/Damp	Darkness: no street lighting	Serious

Location: C9204 HEMINGTON HILL HEMINGTON ON BEND E OF NUMBER 11.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead right bend	NE	W
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead left bend	W	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202101522	26/03/2021	449000	319225	Fine without high winds	Dry	Darkness: street lighting unknown	Serious

Location: M1 SHEPSHED BETWEEN J22 & J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200028	15/01/2022	447190	328740	Fog or mist	Frost/Ice	Darkness: street lights present and lit	Slight

Location: A50 NORTHBOUND SLIPROAD LOCKINGTON-HEMINGTON EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200046	18/01/2022	447995	321770	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LOCKINGTON-HEMINGTON AT MARKER 179/0

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NW	SE
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200063	21/01/2022	448720	320160	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND SHEPSHED AT MARKER 177/3

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200072	24/01/2022	448805	326635	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A50 LONDON ROAD KEGWORTH JW NOTTINGHAM ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	N	S
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200093	29/01/2022	447115	325880	Raining without high winds	Wet/Damp	Darkness: no street lighting	Serious

Location: A453 SOUTHBOUND KEGWORTH APPROX 500M N JUNCTION 23A ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200096	30/01/2022	446635	324235	Fine without high winds	Dry	Darkness: street lights present and lit	Serious

Location: A42 NORTHBOUND LONG WHATTON ON SLIPROAD FOR A453.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	SW	NE
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200193	05/03/2022	446940	330740	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON JW WARREN LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	U-turn	SW	SW
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200202	08/03/2022	443940	326310	Fine without high winds	Frost/Ice	Darkness: no street lighting	Slight

Location: C8214 HILL TOP CASTLE DONINGTON OUTSIDE HILL TOP FARM.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Turning left	W	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200264	29/03/2022	448540	326865	Fine without high winds	Dry	Daylight	Serious

Location: A6 DERBY ROAD KEGWORTH OUTSIDE NUMBER 52.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Pedestrian	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200286	06/04/2022	446370	330260	Fine without high winds	Dry	Daylight	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON APPROX 200M SW NETHERFIELD LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	U-turn	SW	SW
Motor Cycle over 125 cc and up to 500cc	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200346	30/04/2022	443945	326280	Fine without high winds	Dry	Daylight	Serious

Location: C8214 HILL TOP CASTLE DONINGTON AT ROUNDABOUT NR ENTRANCE TO AEROPARK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Leaving roundabout	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200400	16/05/2022	447100	325540	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH APPROX 1500M S JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200447	02/06/2022	444725	327435	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: BOROUGH STREET CASTLE DONINGTON OPPOSITE NUMBER 46

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE
Car	Entering main road	Turning left	NW	NE
Car	Cleared junction or waiting/parked at junction exit	Parked	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200477	14/06/2022	448160	327127	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH JW SIDE LEY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	NW	SE
Car	Entering main road	Turning right	NE	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200609	25/07/2022	443395	325480	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A453 CASTLE DONINGTON AT DHL ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200623	30/07/2022	448930	328790	Fine without high winds	Wet/Damp	Daylight	Serious

Location: A453 SOUTHBOUND KEGWORTH APPROX 250M SW RIVER BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200634	02/08/2022	444485	325280	Other	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Stopping	W	E
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	W	E
Car	Mid Junction - on roundabout or main road	Waiting to turn right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200658	10/08/2022	442060	324115	Fine without high winds	Dry	Daylight	Slight

Location: A453 BREEDON ON THE HILL APPROX 250M NE MOOR LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead right bend	N	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200661	11/08/2022	447265	326075	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH AT MARKER 183/7.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200662	11/08/2022	447300	326100	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to right	N	S
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200748	06/09/2022	449080	317910	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 NORTHBOUND SHEPSHED AT EXIT SLIPROAD FOR JUNCTION 23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Changing lane to right	S	N
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200766	28/06/2022	447125	328790	Fine without high winds	Dry	Daylight	Slight

Location: A50 WESTBOUND LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SE	NW
Car	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200803	26/09/2022	444960	328925	Raining without high winds	Wet/Damp	Daylight	Slight

Location: STATION ROAD CASTLE DONINGTON JW BROAD RUSHES.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Car	Leaving roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200830	04/10/2022	448330	327135	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: C8207 SIDE LEY KEGWORTH OUTSIDE NUMBER 87.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Reversing	S	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200835	23/09/2022	448965	319290	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND SHEPSHED AT MP 176/4.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200862	10/10/2022	444490	325278	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Going ahead other	W	E
Car	Mid Junction - on roundabout or main road	Waiting to turn right	W	S

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200912	26/10/2022	445590	325390	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON AT ENTRANCE TO EAST MIDLANDS AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Goods vehicle - unknown weight	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200926	31/10/2022	443920	328195	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: ARUNDEL AVENUE CASTLE DONINGTON EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead right bend	NE	W
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200985	11/11/2022	444920	327200	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: EASTWAY CASTLE DONINGTON NR NUMBER 30.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead other	W	E
Car	Not at, or within 20M of Jct	Parked	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202201031	20/11/2022	449150	318368	Fine without high winds	Dry	Daylight	Slight

Location: A512 ASHBY ROAD SHEPSHED ON M1 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Changing lane to right	W	E
Car	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202201105	20/12/2022	444830	328315	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Serious

Location: C8214 STATION ROAD CASTLE DONINGTON AT ENTRANCE TO PETROL STATION.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Waiting to turn right	S	E
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300023	09/01/2023	445430	329365	Fine without high winds	Dry	Darkness: street lights present and lit	Fatal

Location: A50 ROUNDABOUT LOCKINGTON-HEMINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W
Car	Entering roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Fatal

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300142	18/02/2023	447625	327715	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 JUNCTION 24 ROUNDABOUT KEGWORTH NR EXIT FOR A453 TO NOTTINGHAM.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300354	15/05/2023	445255	325280	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON JW GRIMES GATE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	SW	NE
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300386	25/05/2023	447530	327570	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND KEGWORTH NR JUNCTION 24

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300409	25/05/2023	448670	320300	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND BETWEEN J23 & 23A. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300500	09/06/2023	446935	325445	Fine without high winds	Dry	Daylight	Slight

Location: A453 NORTHBOUND KEGWORTH AT EXIT FROM DONINGTON SERVICES ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Changing lane to left	S	N
Goods vehicle - unknown weight	Cleared junction or waiting/parked at junction exit	Starting	S	N

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300546	08/06/2023	447095	330925	Fine without high winds	Dry	Daylight	Serious

Location: B6540 TAMWORTH ROAD LOCKINGTON S OF MARINA BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Pedestrian	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300555	07/07/2023	446975	325370	Fine without high winds	Dry	Daylight	Slight

Location: A453 FINGER FARM ROUNDABOUT KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	N	S
Motor Cycle over 50 cc and up to 125cc	Mid Junction - on roundabout or main road	Changing lane to right	N	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300565	10/07/2023	447305	328065	Raining without high winds	Wet/Damp	Daylight	Slight

Location: A50 NORTHBOUND LOCKINGTON APPROX 150M N CHURCH STREET.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300587	18/03/2023	444810	327445	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: C9204 CLAPGUN STREET CASTLE DONINGTON JW THE HOLLOW.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Entering main road	Turning right	NW	SW

Casualties:

Class	Severity
Pedestrian	Slight
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300716	16/08/2023	446630	324190	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LONG WHATTON NR J23 ON SLIP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW
Car	Not at, or within 20M of Jct	Going ahead other	NE	SW
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300893	25/09/2023	448055	321620	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: M1 NORTHBOUND LONG WHATTON AT MP 178/9.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	SE	NW
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300910	25/09/2023	447660	327700	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE AT EXIT FOR REMEMBRANCE WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	E
Van / Goods 3.5 tonnes mgw and under	Leaving roundabout	Changing lane to left	N	E

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300911	29/09/2023	442730	322370	Fine without high winds	Dry	Daylight	Slight

Location: GELSCOE LANE.BREEDON ON THE HILL EXACT LOCATION UNKNOWN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	S	W
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300922	01/10/2023	441840	323960	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 BREEDON ON THE HILL JW MOOR LANE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead other	SW	NE
Car	Jct Approach	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300925	01/10/2023	448790	328690	Fine without high winds	Wet/Damp	Daylight	Fatal

Location: A453 REMEBRANCE WAY KEGWORTH APPROX 150M NE LONG LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	NE	SW
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Fatal

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300941	04/10/2023	447810	327465	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH AT ENTRANCE TO PAINTBALL CENTRE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SE	NW
Car	Entering main road	Turning right	NE	NW

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300964	06/10/2023	447500	327440	Raining without high winds	Wet/Damp	Daylight	Slight

Location: M1 NORTHBOUND EXIT SLIPROAD FOR JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300979	27/09/2023	449470	324550	Fine without high winds	Dry	Daylight	Serious

Location: A6 LONDON ROAD LONG WHATTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	S	N
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301020	22/10/2023	447480	327490	Fine without high winds	Dry	Daylight	Serious

Location: A453 JUNCTION 24 ROUNDABOUT KEGWORTH AT EXIT FROM M1 NORTHBOUND.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	E	W
Motorcycle over 500cc	Entering roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301106	04/11/2023	447490	322555	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LONG WHATTON AT MP 180/0.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301253	15/12/2023	448865	326120	Fine without high winds	Dry	Darkness: street lights present but unlit	Serious

Location: A6 KEGWORTH AT ROUNDABOUT WITH KEGWORTH BY-PASS.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301262	18/12/2023	444580	322660	Fine without high winds	Wet/Damp	Daylight	Serious

Location: A42 NORTHBOUND LONG WHATTON NR MP 84/5.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Starting	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301272	22/12/2023	446965	328940	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A50 LOCKINGTON ON SLIPROAD TO M1 SOUTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400009	04/01/2024	444815	327445	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: C9402 CLAPGUN STREET CASTLE DONINGTON JW THE HOLLOW.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400038	13/01/2024	447295	326400	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Starting	N	S
Car	Mid Junction - on roundabout or main road	Starting	E	W

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400129	29/01/2024	447500	327380	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 NORTHBOUND KEGWORTH APPROACHING J24 EXIT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400144	09/02/2024	448715	327155	Raining without high winds	Wet/Damp	Daylight	Slight

Location: C8207 STATION ROAD KEGWORTH JW LONG LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead	E	W
Car	Entering main road	Going ahead	S	N

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400163	16/02/2024	445260	322965	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: A42 NORTHBOUND LONG WHATTON & DIESWORTH NE OF LONGMERE LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400192	23/02/2024	446860	323920	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND LONG WHATTON APPROACHING J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400235	15/03/2024	449080	317880	Fine without high winds	Dry	Daylight	Less serious

Location: M1 NORTHBOUND LOUGHBOROUGH APPROACHING J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400243	17/03/2024	448380	328325	Raining without high winds	Wet/Damp	Daylight	Slight

Location: A453 NORTHBOUND KEGWORTH APPROX 400M SW LONG LANE BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400297	04/04/2024	449070	318005	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND SHEPSHED ON SLIPROAD TO J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Going ahead	S	N
Car	Leaving main road	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400337	18/04/2024	444785	327193	Fine without high winds	Dry	Daylight	Slight

Location: EASTWAY CASTLE DONINGTON OUTSIDE SCHOOL.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning right	S	E
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400395	06/05/2024	446845	324455	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND LONG WHATTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400439	14/05/2024	449040	319030	Fine without high winds	Dry	Daylight	Less serious

Location: M1 SOUTHBOUND SHEPSHED EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead	N	S

Casualties:

Class	Severity
Vehicle Passenger	Less serious
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400534	12/06/2024	447250	326415	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Stopping	S	N
Car	Mid Junction - on roundabout or main road	Going ahead	S	N
Car	Mid Junction - on roundabout or main road	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400611	27/06/2024	444770	328110	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Starting	S	N
Car	Entering main road	Starting	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400622	05/07/2024	447255	326415	Fine without high winds	Dry	Daylight	Fatal

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	S	N
Goods vehicle - unknown weight	Mid Junction - on roundabout or main road	Going ahead but held up	E	W

Casualties:

Class	Severity
Driver / Rider	Very serious
Vehicle Passenger	Moderately serious
Vehicle Passenger	Fatal
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400664	19/07/2024	441970	324070	Fine without high winds	Dry	Darkness: no street lighting	Moderately serious

Location: A453 BREEDON ON THE HILL BETWEEN TONGE & ISLEY WALTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Vehicle Passenger	Less serious
Vehicle Passenger	Moderately serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400668	21/07/2024	447263	326487	Fine without high winds	Dry	Daylight	Less serious

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead	W	E
Car	Mid Junction - on roundabout or main road	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Less serious
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400696	31/07/2024	447650	327580	Fine without high winds	Dry	Daylight	Less serious

Location: M1 JUNCTION 24 ROUNDABOUT KEGOWORTH. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Changing lane to left	N	S
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400698	01/08/2024	449220	318330	Fine without high winds	Dry	Daylight	Less serious

Location: A512 ASHBY ROAD EAST SHEPSHED AT J23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	E	W
Car	Entering roundabout	Going ahead	N	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Less serious
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400699	30/07/2024	444535	329425	Fine without high winds	Dry	Daylight	Slight

Location: A50 CASTLE DONINGTON APPROX 500M E COUNTY BOUNDARY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	W	E

Casualties:

Class	Severity
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400700	01/08/2024	449765	323875	Fine without high winds	Dry	Daylight	Fatal

Location: A6 SOUTHBOUND LONG WHATTON APPROX 250M S SOUTH LODGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Fatal

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400733	13/08/2024	444480	325280	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead	W	E
Car	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400838	12/09/2024	448485	318280	Raining without high winds	Wet/Damp	Daylight	Less serious

Location: A512 ASHBY ROAD EAST SHEPSHED AT EXIT FROM TRUCK STOP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	N	E
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead	E	W

Casualties:

Class	Severity
Driver / Rider	Less serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400866	17/09/2024	442190	323080	Fine without high winds	Dry	Daylight	Fatal

Location: A453 BREEDON ON THE HILL JW MOOR LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead	SE	N

Casualties:

Class	Severity
Driver / Rider	Fatal

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400916	27/09/2024	444730	327215	Fine without high winds	Dry	Daylight	Slight

Location: EASTWAY CASTLE DONINGTON OUTSIDE SCHOOL.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	NW	SE

Casualties:

Class	Severity
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400917	03/10/2024	444345	328210	Fine without high winds	Dry	Daylight	Slight

Location: TRENT LANE CASTLE DONINGTON JW MAPLE ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	W	E
Car	Leaving main road	Turning right	E	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400930	05/10/2024	441870	323250	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: MOOR LANE TONGE (BREEDON ON THE HILL) JW DOVECOTE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	SE	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400967	15/10/2024	445410	329572	Fine without high winds	Dry	Darkness: street lights present and lit	Less serious

Location: LONDON ROAD LOCKINGTON-HEMINGTON AT A50 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Changing lane to left	NW	SE
Car	Not at, or within 20M of Jct	Going ahead	NW	SE

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400994	18/10/2024	447535	328260	Fine without high winds	Dry	Daylight	Slight

Location: A50 SOUTHBOUND LOCKINGTON AT M1 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	N	S
Car	Mid Junction - on roundabout or main road	Changing lane to right	N	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Number of records in selection: **151**

Appendix 3. Personal Injury Collision Data (M1 Junction 25 Derbyshire)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class						Casualties: Sev
1901537	Wednesday 02/10/2019	SANDIACRE, M1, A52 SLIP ROAD - (IPQA)	Veh 1	Goods > 7.5t	Change lane to right	S	to N		
R1: M 1	0715hrs		Veh 2	Car	Going ahead	S	to N	Dri	Slight
	Daylight:street lights present								
E 447,178	Dry								
N 335,964	Fine without high winds								
	70 mph								

V1 MOVES LANE AND COLLIDES WITH V2 - (IPQA).

2000689	Wednesday 20/05/2020	SANDIACRE - M1 split with exit slip road, S/B Jnc 25. (2022)	Veh 1	Car	Change lane to left	N	to S	Dri	Slight
R1: M 1	1655hrs								
R2: M 1	Daylight:street lights present								
E 447,195	Dry								
N 335,933	Fine without high winds								
	70 mph								

V1 ATTEMPTS TO GO FROM LN 2/3 INTO LN 1/3 TO LEAVE THE M/WAY. V1 CHANGING LANES FROM 2/3, BETWEEN TWO HGV'S IN LN 1/3 MISSES THE EXIT AND COLLIDES INTO ARMCO BARRIER BETWEEN M/WAY AND EXIT SLIP ON THE N/SIDE (2022)

2000691	Thursday 18/06/2020	SANDIACRE-M1 M/WAY S/B J25 (5894)	Veh 1	Car	Going ahead	N	to S	Dri	Slight
R1: M 1	1247hrs		Veh 2	Car	Going ahead	N	to S	FSP	Serious
	Daylight:street lights present								
E 447,192	Wet/Damp								
N 335,738	Raining without high winds								
	70 mph								

V1 LOSES CONTROL IN LANE 4 IN WET ROAD CONDITIONS AND COLLIDES WITH CENTRAL RESERVATION CAUSING IT VEER ACROSS THE M/WAY INTO LANE 1 AND DURING THIS COLLIDES WITH V2 (5894)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
2000942	Saturday	Long Eaton - A52 (IPQA)	Veh 1	Car	Going ahead	E to W	Dri	Fatal
	22/08/2020		Veh 1	Car	Going ahead	E to W	FSP	Fatal
R1: A 52	1655hrs							
	Daylight:street lights present							
E 446,584	Dry							
N 335,428	Fine without high winds							
	70 mph							

V1 TRAV WESTBOUND VEERS TO NEARSIDE FOR UNKNOWN REASONS AND GOES OFF ROAD INTO TREES BEFORE DEFLECTED BACK INTO ROAD. BOTH OCCS FATAL AT SCENE (16779)

2100240	Saturday	SANDIACRE - A52e J/W M1 R/B J25 Slip (2022)	Veh 1	Car	Going ahead	SW to NE	Dri	Slight
	24/10/2020		Veh 2	Car	Change lane to right	SW to NE	Dri	Serious
R1: A 52	1414hrs		Veh 2	Car	Change lane to right	SW to NE	FSP	Slight
R2: A 52	Daylight:street lights present							
E 447,645	Flood							
N 335,845	Raining without high winds							
	70 mph							

V2 S'ROAD MERGING A52 INTO L2. V1 AT SPEED A52 L2. V2 PANICKS,STEERS TO L1 & AQUAPLANES. V1 HITS N/S/BARRIER,REBOUNDS TO L2. V1 FNT COLLIDES REAR V2,V2 COLLIDES CNTRL BARRIER,VEERING TO N/S/BARRIER (2022)

2100547	Monday	SANDIACRE-M1 N/B EXIT SLIP RD J25 (5894)	Veh 1	Car	Change lane to right	SE to NW		
	29/03/2021		Veh 2	Car	Wait go ahead held	SE to NW	Dri	Slight
R1: M 1	1230hrs							
	Daylight:street lights present							
E 447,147	Dry							
N 335,483	Fine without high winds							
	60 mph							

V2 WAS STATIONARY AT T/LIGHTS IN LANE 2 ON N/B EXIT SLIP RD WHEN V1 MOVED INTO LANE 2 COLLIDING WITH R/N/S/ OF V2 (5894)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class				Casualties: Sev
2200373	Tuesday 01/03/2022 1630hrs	LONG EATON- SLIP ROAD NR TO MPOST,M1,A,193.1,J25 ASIDE (17706)	Veh 1	Car	Going ahead	SE to NW	
R1: M 1	Daylight:street lights present		Veh 2	Car	Wait go ahead held	SE to NW Dri	Slight
E 447,152	Dry						
N 335,314	Fine without high winds						
	60 mph						

V2 LEFT M1 TO JOIN A52, QUEUING TRAFFIC. V1 HAS APPROACHED FROM REAR AND HIT V2 ON THE REAR CAUSING DAMAGE AND MINOR INJURY TO DRIVER OF V2(17706)

2200565	Sunday 03/04/2022 1800hrs	SANDIACRE-R/ABOUT JCT 25 M1 J/W A52(17706)	Veh 1	Minibus	Change lane to left	SE to SW	
R1: A 52			Veh 2	Car	Going ahead	SE to NE Dri	Slight
R2: A 52	Daylight:street lights present						
E 447,105	Dry						
N 335,516	Fine without high winds						
	60 mph						

V2 MISSED TURN AND PROCEEDED TO GO AROUND R/ABOUT FOR SECOND TIME; V1 WAS IN WRONG LANE, CUT ACROSS THE PATH OF V2 AND COLLIDED WITH SAME (17706)

2200680	Saturday 23/04/2022 1304hrs	SANDIACRE-R/ABOUT A52 J/W BOSTOCKS LANE (17706)	Veh 1	Car	Going ahead	SE to NW	
R1: A 52			Veh 2	Car	Going ahead	SW to NE Dri	Slight
R2: C	Daylight:street lights present						
E 447,064	Dry						
N 335,607	Fine without high winds						
	60 mph						

V2 IN THE INSIDE LANE , V1 CAME OUT OF NO WHERE ON R/H SIDE STRAIGHT INTO V2, CUTTING ACROSS THE PATH OF V2; V2 LEFT THE SCENE WITHOUT STOPPING (17706)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class				Casualties: Sev
2200837	Thursday 19/05/2022 1622hrs	DERBY- A52 EXIT SLIP RD WESTBOUND TO M1 JCT 25 (17706)	Veh 1	Car	Going ahead	NE to SW	
			Veh 2	Car	Stopping	NE to SW Dri	Slight
R1: A 52			Veh 2	Car	Stopping	NE to SW FSP	Slight
R2: A 52	Daylight:street lights present		Veh 3	Car	Stopping	NE to SW	
E 447,521	Dry						
N 335,753	Fine without high winds						
	70 mph						

V1 APPROACHING EXIT SLIP TO J25. FAILS TO SEE V2 AND V3 ALREADY STATIONARY DUE TO BUILD UP OF TRAFFIC ON EXIT SLIP V1 COLLIDES WITH REAR OF V 2, WHICH IS PUSHED FORWARD INTO REAR OF V3(17706)

2201068	Friday 24/06/2022 1600hrs	SANDIACRE-A52 R/ABOUT J/W BOSTOCK'S LANE (17706)	Veh 1	Car	Change lane to left	SW to NE	
			Veh 2	Taxi	Going ahead	SW to NE Dri	Slight
R1: A 52			Veh 2	Taxi	Going ahead	SW to NE FSP	Slight
R2: C	Daylight:street lights present						
E 447,077	Dry						
N 335,622	Fine without high winds						
	60 mph						

V2 ON R/ABOUT AND MOVED OFF FROM GREEN T/LIGHTS WHEN V1 OVERTOOK V2 AND CHANGED LANES; PROCEEDED THEN TO CHANGE LANES AGAIN AND THEN COLLIDED WITH V2; V1 FAILED TO STOP AND EXCHANGE DETAILS(17706)

2300341	Sunday 26/02/2023 1220hrs	SANDIACRE-A52 R/ABOUT J/W BOSTOCK'S LANE (17706)	Veh 1	Car	Going ahead	NW to NE Dri	Slight
			Veh 1	Car	Going ahead	NW to NE FSP	Slight
R1: A 52			Veh 2	Car	Going ahead	NW to NE	
R2: U	Daylight:street lights present						
E 447,100	Dry						
N 335,650	Fine without high winds						
	60 mph						

V1 WAS TRAVELLING DOWN BOSTOCKS LANE TO J/W R/ABOUT WHEN V2 COLLIDED WITH THE REAR OF V1 CAUSING SLIGHT INJURY/DAMAGE(17706)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
2301064	Friday 28/04/2023	SANDIACRE - M1 EXIT SLIP ROAD (DQ)	Veh 1	Car	Going ahead	S to N	Ped	Fatal
R1: M 1	0442hrs							
	Darkness: street lights present a							
E 447,159	Wet/Damp							
N 335,356	Raining without high winds							
	70 mph							

UNKNOWN VEHICLE HAS COLLIDED WITH MALE PEDESTRIAN IN UNKNOWN CIRCUMSTANCES EARLY AM, ON THE NORTHBOUND EXIT SLIP ROAD IN LANE 2. (INVESTIGATION RETAINED BY NOTTS POLICE (DQ)

2301120	Saturday 22/07/2023	SANDIACRE- M1 EXIT SLIP RD J/W A52 (18144)	Veh 1	Car	Going ahead	NW to SE	FSP	Serious
			Veh 1	Car	Going ahead	NW to SE	Dri	Serious
R1: A 52	0400hrs							
R2: M 1	Darkness: street lights present a							
E 447,268	Wet/Damp							
N 335,707	Raining without high winds							
	70 mph							

V1 TRAVELLING AT EXCESSIVE SPEED FAILS TO STOP AT JUNCTION AND COLLIDES WITH FURNITURE AND TREES CAUSING SERIOUS INJURIES (18144).

2301337	Sunday 27/08/2023	SANDIACRE - A52 (E) ENTRY S/RD - APPROX 1M N/E L/POST EL1465 - W3W ///JAWS.SPARKLES.MODEST	Veh 1	Car	Going ahead	SW to NE	Dri	Serious
			Veh 2	Car	Going ahead	SW to NE		
R1: A 52	1150hrs							
R2: A 52	Daylight:street lights present							
E 447,381	Dry							
N 335,738	Fine without high winds							
	70 mph							

DRIVER OF V1 REPORTS BEING CUT UP BY V2 CAUSING HIM TO TAKE EVASIVE ACTION - LEFT C/WAY N/SIDE AND ROLLED (5869) K

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class						Casualties: Sev
2400013 **R1: M 1** **R2: M 1** **E 447,206** **N 335,261**	Sunday 05/11/2023 1410hrs Daylight:street lights present Dry Fine without high winds 70 mph	SANDIACRE - M1 J/W M1 STH ENTRY S/RD (5869)	Veh 1 Veh 2	Car Goods Unknown C	Going ahead Change lane to left	N to S N to S	Dri		Slight
	VEHICLE 1 MOVED INTO LANE 1 ON THE MOTORWAY AND COLLIDED WITH VEHICLE 2								
2400014 **R1: A 52** **R2: M 1** **E 447,262** **N 335,719**	Wednesday 22/11/2023 2030hrs Darkness: street lighting unkno Dry Unknown 60 mph	SANDIACRE - M1 S/RD J/W M1/A52 R/BT JCTN 25 (5869)	Veh 1 Veh 2	Car Car	Wait go ahead held Going ahead	N to SE N to SE	Dri		Slight
	V2 COLLIDED WITH REAR OF V1								
2400296 **R1: A 52** **E 446,870** **N 335,495**	Thursday 22/02/2024 1645hrs Darkness: street lights present a Wet/Damp Fine without high winds 70 mph	RISLEY- BRIAN CLOUGH WAY EASTBOUND NR TO EXIT JCT 25 M1 (18144)	Veh 1 Veh 2	Car Car	Going ahead Stopping	W to E W to E	Dri		Slight
	V1 COLLIDED WITH THE REAR OF V2 IN SLOW MOVING TRAFFIC CAUSING SLIGHT INJURIES (18144).								

Appendix 4. Personal Injury Collision Data (A453 Remembrance Way Nottinghamshire)

Accident Details Report

Total number of reports = **7**

Total number of pages (including this page) = **8**

ROAD TRAFFIC INJURY ACCIDENT RECORDS - DISCLAIMER

These details are a record of the personal injury accidents reported to the Police. Every endeavour is made to ensure the accuracy and completeness of these records, which have been transcribed from the original Police Reports. The data is then entered and held on computer.

Occasions may arise when information from the Police, relevant to a particular accident, may not be available for several months and will therefore not be included.

No. 1	District Rushcliffe	Accident Details	VRUs	Grid Reference 449645 / 328936
SEVERITY SLIGHT	Ref.No 2D184622			Police Officer Attend: Yes

Date	07/10/2022	Day Friday	ROAD U
Time	20:51		LOCATION U/C KEGWORTH ROAD, at its Junction with U/C MAIN STREET, RATCLIFFE-ON-SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/no lights		

SITE DETAILS	
Speed Limit	30 MPH
Carriageway	Single c'way
Lane markings	Centre/hazard line
Junction Detail	T or Staggered junction
Junction Control	Give way sign or uncontrolled
2nd Road Number	U
Pedestrian Facilities	No Human control within 50m
and	No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car
Manoeuvre Going ahead right hand bend
Direction from South west to North east Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Mid junction
Veh left carriageway? Left c'way Offside
Hit object in c'way? None
Hit object off c'way? Tree
First point of impact Front
Drivers age 59 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Positive
Journey purpose

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 59 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 2	District Rushcliffe	Accident Details	VRUs	Grid Reference 450026 / 329311
SEVERITY SLIGHT	Ref.No 2D019922			Police Officer Attend: Yes

Date	06/02/2022	Day Sunday	ROAD U
Time	20:03		LOCATION U/C GREEN LANE, 0 metres from A453T REMEMBRANCE WAY (OVERBRIDGE), 260 Meters west of KEGWORTH ROAD RBT, RATCLIFFE ON SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/lights lit		

Speed Limit	30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from North west to South east		Towing? No			
Skidded No					
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Drivers age 23 yrs	Sex Male	Other veh.hit (ref.) 2		Hit and run No	
Foreign vehicle	Not foreign			Breath test Not requested	
Journey purpose	Other/Not known				

Veh.No. 2	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from South east to North west		Towing? No			
Skidded No					
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Offside				
Drivers age 26 yrs	Sex Male	Other veh.hit (ref.) 1		Hit and run No	
Foreign vehicle	Not foreign			Breath test Not requested	
Journey purpose	Other/Not known				

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Driver or Rider		Veh ref No 2
Severity SLIGHT	Age 26 yrs	Sex Male	
Car Passenger? No		PSV Passenger? No	
Ped Movement	Not a pedestrian		
Ped location	Not a pedestrian		
Ped Direction to	Not a pedestrian		
School Pupil	Other		
Roadworker injured	No		

No. 3	District Rushcliffe	Accident Details	VRUs	Grid Reference 450057 / 329270
SEVERITY SLIGHT	Ref.No 2D012221			Police Officer Attend: Yes

Date	24/01/2021	Day Sunday	
Time	13:58		
Weather	Snow		
Road Surface	Snow		
Street Lighting	Daylight		

ROAD U

LOCATION U/C KEGWORTH ROAD RBT, at its Junction with U/C KEGWORTH ROAD, RATCLIFFE-ON-SOAR, NOTTINGHAMSHIRE

SITE DETAILS	
Speed Limit	30 MPH
Carriageway	Roundabout
Lane markings	Centre/hazard line
Junction Detail	Roundabout
Junction Control	Give way sign or uncontrolled
2nd Road Number	U
Pedestrian Facilities	No Human control within 50m
and	No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car
Manoeuvre Turning right
Direction from North to West Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Entering roundabout
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? Lamp post
First point of impact Front
Drivers age 22 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 22 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 4	District Rushcliffe		VRUs	Grid Reference 450271 / 329460
SEVERITY **SLIGHT**	Ref.No 2D252119	**Accident Details**		Police Officer Attend: Yes

Date	19/12/2019	Day Thursday	ROAD A453
Time	03:23		LOCATION A453 REMEMBRANCE WAY, 1230 metres northeast of RATCLIFFE LANE, RATCLIFFE ON SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/lights lit		

SITE DETAILS	
Speed Limit	70 MPH
Carriageway	Dual c'way
Lane markings	Centre/hazard line
Junction Detail	Not at or within 20m of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Goods > 7.5t
Manoeuvre O/T moving vehicle on its O/S
Direction from South west to North east Towing? Articulated veh.
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Drivers age 30 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Journey as part of work

Veh.No. 2 Vehicle type Car
Manoeuvre Going ahead other
Direction from South west to North east Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? Central crash barrier
First point of impact Offside
Drivers age 58 yrs Sex Female Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity **SLIGHT** Age 58 yrs Sex Female
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 5	District Rushcliffe	Accident Details	VRUs Motorcycle	Grid Reference 450324 / 329474
SEVERITY SERIOUS	Ref.No 2D077923			Police Officer Attend: Yes

Date	28/05/2023	Day Sunday	
Time	19:30		
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

ROAD A453

LOCATION A453 REMEBRANCE WAY, 1000 metres southwest of WEST LEAKE LANE (UNDERPASS), RATCLIFFE ON SOAR

SITE DETAILS	
Speed Limit	70 MPH
Carriageway	Dual c'way
Lane markings	Centre/hazard line
Junction Detail	Not at or within 20m of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type M/cycle > 500cc
Manoeuvre Going ahead other
Direction from North east to South west Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 20 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SERIOUS Age 20 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 6	District Rushcliffe		VRUs Motorcycle	Grid Reference 451179 / 330154
SEVERITY FATAL	Ref.No 2D016022	**Accident Details**		Police Officer Attend: Yes

Date	04/05/2022	Day Wednesday	ROAD A453
Time	04:48		LOCATION A453 REMEMBRANCE WAY, 90 metres northeast of WEST LEAK LANE (UNDERBRIDGE), THRUMPTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/no lights		

Speed Limit	50 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Dual c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from	South west to North east	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Drivers age	20 yrs	Sex	Male	Other veh.hit (ref.)	2
Foreign vehicle	Not foreign			Hit and run	No
Journey purpose	Commuting to/from work			Breath test	Negative

Veh.No. 2	Vehicle type M/cycle 50 - 125cc				
Manoeuvre	Going ahead other				
Direction from	South west to North east	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Drivers age	62 yrs	Sex	Male	Other veh.hit (ref.)	1
Foreign vehicle	Not foreign			Hit and run	No
Journey purpose	Commuting to/from work			Breath test	Not provided

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Driver or Rider			Veh ref No	2
Severity FATAL	Age 62 yrs	Sex	Male		
Car Passenger?	No	PSV Passenger?	No		
Ped Movement	Not a pedestrian				
Ped location	Not a pedestrian				
Ped Direction to	Not a pedestrian				
School Pupil	Other				
Roadworker injured	No				

No. 7	District Rushcliffe	Accident Details	VRUs	Grid Reference 451586 / 330854
SEVERITY SLIGHT	Ref.No 2D069821			Police Officer Attend: Yes

Date	13/06/2021	Day Sunday	ROAD U
Time	10:57		LOCATION U/C BARTON LANE, 115 metres southwest of CHURCH LANE, THRUMPTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

Speed Limit	30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	None		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car
Manoeuvre Going ahead other
Direction from South west to North east Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Drivers age 86 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Other/Not known

Veh.No. 2 Vehicle type Agric Veh
Manoeuvre Waiting to go ahead but held up
Direction from North east to South west Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Drivers age 50 yrs Sex Male Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Journey as part of work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 86 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

APPENDIX 3: NMU Survey Data

Road Data Services Ltd

East Midlands Gateway NMU
Site 1 (A453 Link)

Weekday

	Eastbound					Westbound				
TIME	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
07:00 - 07:15	0	0	0	0	**0**	0	0	0	0	**0**
07:15 - 07:30	0	0	0	0	**0**	0	0	0	0	**0**
07:30 - 07:45	0	0	0	0	**0**	0	0	0	0	**0**
07:45 - 08:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	0	0	0	**0**	0	1	0	0	**1**
08:15 - 08:30	0	0	0	0	**0**	0	0	0	0	**0**
08:30 - 08:45	0	0	0	0	**0**	0	0	0	0	**0**
08:45 - 09:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
09:00 - 09:15	0	0	0	0	**0**	0	0	0	0	**0**
09:15 - 09:30	0	0	0	0	**0**	0	0	0	0	**0**
09:30 - 09:45	0	0	0	0	**0**	0	0	0	0	**0**
09:45 - 10:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10:00 - 10:15	0	0	0	0	**0**	0	0	0	0	**0**
10:15 - 10:30	0	0	0	0	**0**	0	0	0	0	**0**
10:30 - 10:45	0	0	0	0	**0**	1	0	0	0	**1**
10:45 - 11:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
11:00 - 11:15	0	0	0	0	**0**	0	0	0	0	**0**
11:15 - 11:30	0	0	0	0	**0**	0	0	0	0	**0**
11:30 - 11:45	0	0	0	0	**0**	0	0	0	0	**0**
11:45 - 12:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 - 12:15	0	0	0	0	**0**	7	0	0	0	**7**
12:15 - 12:30	0	0	0	0	**0**	3	0	0	0	**3**
12:30 - 12:45	0	0	0	0	**0**	4	0	0	0	**4**
12:45 - 13:00	10	0	0	0	**10**	0	0	0	0	**0**
Hourly Total	**10**	**0**	**0**	**0**	**10**	**14**	**0**	**0**	**0**	**14**
13:00 - 13:15	4	0	0	0	**4**	0	0	0	0	**0**
13:15 - 13:30	4	0	0	0	**4**	0	0	0	0	**0**
13:30 - 13:45	2	0	0	0	**2**	3	0	0	0	**3**
13:45 - 14:00	2	0	0	0	**2**	0	0	0	0	**0**
Hourly Total	**12**	**0**	**0**	**0**	**12**	**3**	**0**	**0**	**0**	**3**
14:00 - 14:15	3	0	0	0	**3**	0	0	0	0	**0**
14:15 - 14:30	0	0	0	0	**0**	0	0	0	0	**0**
14:30 - 14:45	0	0	0	0	**0**	0	0	0	0	**0**
14:45 - 15:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	0	0	0	0	**0**	0	0	0	0	**0**
15:15 - 15:30	0	0	0	0	**0**	2	0	0	0	**2**
15:30 - 15:45	1	0	0	0	**1**	0	0	0	0	**0**
15:45 - 16:00	1	0	0	0	**1**	1	0	0	0	**1**
Hourly Total	**2**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**0**	**3**
16:00 - 16:15	0	0	0	0	**0**	0	0	0	0	**0**
16:15 - 16:30	0	0	0	0	**0**	0	0	0	0	**0**
16:30 - 16:45	0	0	0	0	**0**	0	0	0	0	**0**
16:45 - 17:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	0	0	0	0	**0**	0	0	0	0	**0**
17:15 - 17:30	0	0	0	0	**0**	0	0	0	0	**0**
17:30 - 17:45	0	0	0	0	**0**	0	0	0	0	**0**
17:45 - 18:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	0	0	0	0	**0**	0	0	0	0	**0**
18:15 - 18:30	0	0	0	0	**0**	0	0	0	0	**0**
18:30 - 18:45	0	0	0	0	**0**	0	0	0	0	**0**
18:45 - 19:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**27**	**0**	**0**	**0**	**27**	**21**	**1**	**0**	**0**	**22**

Saturday

	Eastbound					Westbound				
	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
07:00 - 07:15	0	0	0	0	**0**	0	0	0	0	**0**
07:15 - 07:30	0	0	0	0	**0**	0	0	0	0	**0**
07:30 - 07:45	0	0	0	0	**0**	0	0	0	0	**0**
07:45 - 08:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	0	0	0	**0**	0	0	0	0	**0**
08:15 - 08:30	0	0	0	0	**0**	0	0	0	0	**0**
08:30 - 08:45	0	0	0	0	**0**	0	0	0	0	**0**
08:45 - 09:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	1	0	0	0	**1**	2	0	0	0	**2**
09:15 - 09:30	0	0	0	0	**0**	2	0	0	0	**2**
09:30 - 09:45	0	0	0	0	**0**	0	0	0	0	**0**
09:45 - 10:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**4**	**0**	**0**	**0**	**4**
10:00 - 10:15	0	0	0	0	**0**	0	0	0	0	**0**
10:15 - 10:30	0	0	0	0	**0**	0	0	0	0	**0**
10:30 - 10:45	0	0	0	0	**0**	0	0	0	0	**0**
10:45 - 11:00	1	0	0	0	**1**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
11:00 - 11:15	0	0	0	0	**0**	0	0	0	0	**0**
11:15 - 11:30	0	1	0	0	**1**	0	0	0	0	**0**
11:30 - 11:45	0	0	0	0	**0**	1	0	0	0	**1**
11:45 - 12:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
12:00 - 12:15	0	0	0	0	**0**	1	0	0	0	**1**
12:15 - 12:30	0	0	0	0	**0**	0	0	0	0	**0**
12:30 - 12:45	1	0	0	0	**1**	0	0	0	0	**0**
12:45 - 13:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
13:00 - 13:15	0	0	0	0	**0**	0	0	0	0	**0**
13:15 - 13:30	1	0	0	0	**1**	0	0	0	0	**0**
13:30 - 13:45	0	0	0	0	**0**	0	0	0	0	**0**
13:45 - 14:00	1	0	0	0	**1**	0	0	0	0	**0**
Hourly Total	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
14:00 - 14:15	1	0	0	0	**1**	0	0	0	0	**0**
14:15 - 14:30	1	0	0	0	**1**	0	0	0	0	**0**
14:30 - 14:45	1	0	0	0	**1**	0	0	0	0	**0**
14:45 - 15:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	0	0	0	0	**0**	0	0	0	0	**0**
15:15 - 15:30	0	0	0	0	**0**	0	0	0	0	**0**
15:30 - 15:45	0	0	0	0	**0**	0	0	0	0	**0**
15:45 - 16:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	0	0	0	0	**0**	0	0	0	0	**0**
16:15 - 16:30	2	0	0	0	**2**	0	0	0	0	**0**
16:30 - 16:45	0	0	0	0	**0**	0	0	0	0	**0**
16:45 - 17:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	0	0	0	0	**0**	0	0	0	0	**0**
17:15 - 17:30	0	0	0	0	**0**	0	0	0	0	**0**
17:30 - 17:45	2	0	0	0	**2**	0	0	0	0	**0**
17:45 - 18:00	0	0	0	0	**0**	2	0	0	0	**2**
Hourly Total	**2**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**
18:00 - 18:15	0	0	0	0	**0**	0	0	0	0	**0**
18:15 - 18:30	0	0	0	0	**0**	1	0	0	0	**1**
18:30 - 18:45	0	0	0	0	**0**	0	0	0	0	**0**
18:45 - 19:00	0	0	0	0	**0**	1	0	0	0	**1**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**
TOTAL	**12**	**1**	**0**	**0**	**13**	**10**	**0**	**0**	**0**	**10**

Road Data Services Ltd

East Midlands Gateway NMU
Site 2 (Finger Farm Roundabout)

Weekday

	Eastbound					Westbound				
TIME	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
07:00 - 07:15	0	1	0	0	**1**	0	0	0	0	**0**
07:15 - 07:30	0	0	0	0	**0**	0	0	0	0	**0**
07:30 - 07:45	0	0	0	0	**0**	0	0	0	0	**0**
07:45 - 08:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	1	0	0	**1**	0	1	0	0	**1**
08:15 - 08:30	0	0	0	0	**0**	0	0	0	0	**0**
08:30 - 08:45	0	0	0	0	**0**	0	0	0	0	**0**
08:45 - 09:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
09:00 - 09:15	0	0	0	0	**0**	0	0	0	0	**0**
09:15 - 09:30	0	0	0	0	**0**	0	0	0	0	**0**
09:30 - 09:45	0	0	0	0	**0**	0	0	0	0	**0**
09:45 - 10:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10:00 - 10:15	0	0	0	0	**0**	0	0	0	0	**0**
10:15 - 10:30	0	0	0	0	**0**	0	0	0	0	**0**
10:30 - 10:45	0	0	0	0	**0**	0	0	0	0	**0**
10:45 - 11:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:00 - 11:15	0	0	0	0	**0**	0	0	0	0	**0**
11:15 - 11:30	0	0	0	0	**0**	0	0	0	0	**0**
11:30 - 11:45	0	0	0	0	**0**	0	0	0	0	**0**
11:45 - 12:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 - 12:15	0	0	0	0	**0**	0	0	0	0	**0**
12:15 - 12:30	0	0	0	0	**0**	0	0	0	0	**0**
12:30 - 12:45	0	0	0	0	**0**	0	0	0	0	**0**
12:45 - 13:00	1		0	0	**1**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
13:00 - 13:15	0	0	0	0	**0**	0	0	0	0	**0**
13:15 - 13:30	1	0	0	0	**1**	0	0	0	0	**0**
13:30 - 13:45	0	0	0	0	**0**	0	0	0	0	**0**
13:45 - 14:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
14:00 - 14:15	0	0	0	0	**0**	0	0	0	0	**0**
14:15 - 14:30	0	0	0	0	**0**	0	0	0	0	**0**
14:30 - 14:45	0	0	0	0	**0**	1	0	0	0	**1**
14:45 - 15:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
15:00 - 15:15	0	0	0	0	**0**	0	0	0	0	**0**
15:15 - 15:30	0	0	0	0	**0**	1	0	0	0	**1**
15:30 - 15:45	0	0	0	0	**0**	0	0	0	0	**0**
15:45 - 16:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
16:00 - 16:15	0	1	0	0	**1**	0	0	0	0	**0**
16:15 - 16:30	0	0	0	0	**0**	0	0	0	0	**0**
16:30 - 16:45	0	0	0	0	**0**	0	0	0	0	**0**
16:45 - 17:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	0	0	0	0	**0**	0	1	0	0	**1**
17:15 - 17:30	0	0	0	0	**0**	0	0	0	0	**0**
17:30 - 17:45	0	0	0	0	**0**	0	0	0	0	**0**
17:45 - 18:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
18:00 - 18:15	0	0	0	0	**0**	0	0	0	0	**0**
18:15 - 18:30	0	0	0	0	**0**	0	0	0	0	**0**
18:30 - 18:45	0	0	0	0	**0**	0	0	0	0	**0**
18:45 - 19:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**2**	**3**	**0**	**0**	**5**	**2**	**2**	**0**	**0**	**4**

Saturday

	Eastbound					Westbound				
	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1		0	0	**1**	0	2	0	0	**2**
0	0	0	0	**0**	1	0	0	0	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
1	**0**	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**3**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	1	0	0	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1	**0**	**0**	**0**	**1**	**1**	**4**	**0**	**0**	**5**

Road Data Services Ltd

East Midlands Gateway NMU
Site 3 (East Midlands Gateway)

Weekday (Crossing A453)

	Eastbound					Westbound				
TIME	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
07:00 - 07:15	0	0	0	0	**0**	0	0	0	0	**0**
07:15 - 07:30	0	0	0	0	**0**	0	0	0	0	**0**
07:30 - 07:45	0	0	0	0	**0**	0	0	0	0	**0**
07:45 - 08:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	0	0	0	**0**	0	0	0	0	**0**
08:15 - 08:30	0	0	0	0	**0**	0	0	0	0	**0**
08:30 - 08:45	1	0	0	0	**1**	1	0	0	0	**1**
08:45 - 09:00	0	0	0	0	**0**	1	0	0	0	**1**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**2**
09:00 - 09:15	0	0	0	0	**0**	0	0	0	0	**0**
09:15 - 09:30	0	0	0	0	**0**	0	0	0	0	**0**
09:30 - 09:45	0	0	0	0	**0**	0	0	0	0	**0**
09:45 - 10:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10:00 - 10:15	0	0	0	0	**0**	0	0	0	0	**0**
10:15 - 10:30	0	0	0	0	**0**	0	0	0	0	**0**
10:30 - 10:45	0	0	0	0	**0**	0	1	0	0	**1**
10:45 - 11:00	0	0	0	0	**0**	1	0	0	0	**1**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**
11:00 - 11:15	0	0	0	0	**0**	0	0	0	0	**0**
11:15 - 11:30	0	0	0	0	**0**	0	0	0	0	**0**
11:30 - 11:45	1	0	0	0	**1**	0	0	0	0	**0**
11:45 - 12:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
12:00 - 12:15	0	1	0	0	**1**	0	0	0	0	**0**
12:15 - 12:30	1	0	0	0	**1**	0	0	0	0	**0**
12:30 - 12:45	0	0	0	0	**0**	0	0	0	0	**0**
12:45 - 13:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
13:00 - 13:15	2	0	0	0	**2**	0	0	0	0	**0**
13:15 - 13:30	0	0	0	0	**0**	2	0	0	0	**2**
13:30 - 13:45	0	1	0	0	**1**	1	0	0	0	**1**
13:45 - 14:00	0	1	0	0	**1**	0	0	0	0	**0**
Hourly Total	**2**	**2**	**0**	**0**	**4**	**3**	**0**	**0**	**0**	**3**
14:00 - 14:15	0	0	0	0	**0**	0	0	0	0	**0**
14:15 - 14:30	0	1	0	0	**1**	0	0	0	0	**0**
14:30 - 14:45	0	0	0	0	**0**	0	0	0	0	**0**
14:45 - 15:00	1	0	0	0	**1**	0	0	0	0	**0**
Hourly Total	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	0	0	0	0	**0**	0	0	0	0	**0**
15:15 - 15:30	0	0	0	0	**0**	0	0	0	0	**0**
15:30 - 15:45	0	0	0	0	**0**	0	0	0	0	**0**
15:45 - 16:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	0	0	0	0	**0**	0	1	0	0	**1**
16:15 - 16:30	0	0	0	0	**0**	0	0	0	0	**0**
16:30 - 16:45	0	0	0	0	**0**	0	0	0	0	**0**
16:45 - 17:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
17:00 - 17:15	1	0	0	0	**1**	1	0	0	0	**1**
17:15 - 17:30	0	0	0	0	**0**	0	0	0	0	**0**
17:30 - 17:45	0	0	0	0	**0**	0	1	0	0	**1**
17:45 - 18:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**2**
18:00 - 18:15	0	0	0	0	**0**	0	2	0	0	**2**
18:15 - 18:30	0	0	0	0	**0**	0	0	0	0	**0**
18:30 - 18:45	0	1	0	0	**1**	0	0	0	0	**0**
18:45 - 19:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**1**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**2**
TOTAL	**7**	**5**	**0**	**0**	**12**	**7**	**5**	**0**	**0**	**12**

Weekday (Crossing A6 Kegworth Bypass)

	Northbound					Southbound				
	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
	0	1	0	0	**1**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
	0	1	0	0	**1**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	1	0	0	0	**1**	1	0	0	0	**1**
	0	0	0	0	**0**	1	0	0	0	**1**
	1	**1**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	0	0	0	**0**	0	0	0	0	**0**
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0

Road Data Services Ltd

East Midlands Gateway NMU
Site 4 (Hyam's Lane)

Weekday

	Eastbound					Westbound				
TIME	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
07:00 - 07:15	0	0	0	0	**0**	0	0	0	0	**0**
07:15 - 07:30	0	0	0	0	**0**	0	0	0	0	**0**
07:30 - 07:45	0	0	0	0	**0**	0	0	0	0	**0**
07:45 - 08:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	0	0	0	**0**	0	0	0	0	**0**
08:15 - 08:30	0	0	0	0	**0**	0	0	0	0	**0**
08:30 - 08:45	0	0	0	0	**0**	0	0	0	0	**0**
08:45 - 09:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	0	0	0	0	**0**	0	0	0	0	**0**
09:15 - 09:30	0	0	0	0	**0**	0	0	0	0	**0**
09:30 - 09:45	0	0	0	0	**0**	0	0	0	0	**0**
09:45 - 10:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10:00 - 10:15	0	0	0	0	**0**	0	0	0	0	**0**
10:15 - 10:30	0	0	0	0	**0**	0	0	0	0	**0**
10:30 - 10:45	0	0	0	0	**0**	0	0	0	0	**0**
10:45 - 11:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:00 - 11:15	0	0	0	0	**0**	0	0	0	0	**0**
11:15 - 11:30	0	0	0	0	**0**	0	0	0	0	**0**
11:30 - 11:45	0	0	0	0	**0**	0	0	0	0	**0**
11:45 - 12:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 - 12:15	0	0	0	0	**0**	0	0	0	0	**0**
12:15 - 12:30	0	0	0	0	**0**	0	0	0	0	**0**
12:30 - 12:45	0	0	0	0	**0**	0	0	0	0	**0**
12:45 - 13:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
13:00 - 13:15	0	0	0	0	**0**	0	0	0	0	**0**
13:15 - 13:30	0	0	0	0	**0**	0	0	0	0	**0**
13:30 - 13:45	1	0	0	0	**1**	0	0	0	0	**0**
13:45 - 14:00	0	0	0	0	**0**	1	0	0	0	**1**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
14:00 - 14:15	0	0	0	0	**0**	0	0	0	0	**0**
14:15 - 14:30	0	0	0	0	**0**	0	0	0	0	**0**
14:30 - 14:45	0	0	0	0	**0**	0	0	0	0	**0**
14:45 - 15:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	0	0	0	0	**0**	0	0	0	0	**0**
15:15 - 15:30	0	0	0	0	**0**	0	0	0	0	**0**
15:30 - 15:45	0	0	0	0	**0**	0	0	0	0	**0**
15:45 - 16:00	1	0	0	0	**1**	0	0	0	0	**0**
Hourly Total	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	0	0	0	0	**0**	0	0	0	0	**0**
16:15 - 16:30	0	0	0	0	**0**	1	0	0	0	**1**
16:30 - 16:45	0	0	0	0	**0**	0	0	0	0	**0**
16:45 - 17:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
17:00 - 17:15	0	0	0	0	**0**	0	0	0	0	**0**
17:15 - 17:30	0	0	0	0	**0**	0	0	0	0	**0**
17:30 - 17:45	0	0	0	0	**0**	0	0	0	0	**0**
17:45 - 18:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	0	0	0	0	**0**	0	0	0	0	**0**
18:15 - 18:30	0	0	0	0	**0**	0	0	0	0	**0**
18:30 - 18:45	0	0	0	0	**0**	0	0	0	0	**0**
18:45 - 19:00	0	0	0	0	**0**	0	0	0	0	**0**
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**2**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**2**

Saturday

	Eastbound					Westbound				
PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL	PEDESTRIAN	CYCLE	E-SCOOTER	EQUESTRIAN	TOTAL
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1	0	0	0	**1**	1	0	0	0	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
1	0	0	0	**1**	1	0	0	0	**1**
1	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	2	0	0	0	**2**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1	0	0	0	**1**	0	0	0	0	**0**
2	0	0	0	**2**	1	0	0	0	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
3	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**1**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	0	0	0	**0**	0	0	0	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8	**0**	**0**	**0**	**8**	**6**	**0**	**0**	**0**	**6**

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: A453 North

	To M1 J23A Access									To Donington Services Access									To A453 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	47	13	4	10	0	**74**	**89.0**	0	0	4	5	4	11	0	**24**	**40.3**	0	1	78	4	2	1	1	**87**	**89.7**
07:15 - 07:30	0	0	41	10	1	0	1	**53**	**54.5**	0	0	7	0	3	4	0	**14**	**20.7**	0	0	77	10	3	3	2	**95**	**102.4**
07:30 - 07:45	0	0	63	23	7	12	0	**105**	**124.1**	0	1	5	3	0	0	0	**9**	**8.4**	0	0	93	6	1	3	3	**106**	**113.4**
07:45 - 08:00	0	0	119	42	6	18	0	**185**	**211.4**	0	0	9	2	0	3	0	**14**	**17.9**	0	0	73	4	2	4	3	**86**	**95.2**
Hourly Total	**0**	**0**	**270**	**88**	**18**	**40**	**1**	**417**	**479.0**	**0**	**1**	**25**	**10**	**7**	**18**	**0**	**61**	**87.3**	**0**	**1**	**321**	**24**	**8**	**11**	**9**	**374**	**400.7**
08:00 - 08:15	0	0	122	30	4	10	0	**166**	**181.0**	0	0	12	7	1	4	0	**24**	**29.7**	0	1	82	9	1	2	1	**96**	**99.5**
08:15 - 08:30	0	0	67	20	2	15	0	**104**	**124.5**	0	0	16	2	0	2	0	**20**	**22.6**	0	0	117	10	2	2	1	**132**	**136.6**
08:30 - 08:45	0	0	48	15	7	12	1	**83**	**103.1**	0	0	13	2	0	4	0	**19**	**24.2**	0	0	122	11	0	2	3	**138**	**143.6**
08:45 - 09:00	0	0	49	9	3	12	1	**74**	**92.1**	0	0	18	3	0	4	0	**25**	**30.2**	0	0	76	12	0	1	0	**89**	**90.3**
Hourly Total	**0**	**0**	**286**	**74**	**16**	**49**	**2**	**427**	**500.7**	**0**	**0**	**59**	**14**	**1**	**14**	**0**	**88**	**106.7**	**0**	**1**	**397**	**42**	**3**	**7**	**5**	**455**	**470.0**
09:00 - 09:15	0	0	18	4	8	11	0	**41**	**59.3**	0	0	14	4	1	2	0	**21**	**24.1**	0	1	81	6	3	3	4	**98**	**106.8**
09:15 - 09:30	0	0	28	5	4	9	0	**46**	**59.7**	0	0	18	4	2	5	1	**30**	**38.5**	0	0	77	8	1	1	1	**88**	**90.8**
09:30 - 09:45	0	0	11	4	6	7	0	**28**	**40.1**	0	0	19	2	3	6	0	**30**	**39.3**	0	1	44	7	0	4	2	**58**	**64.6**
09:45 - 10:00	0	0	12	7	3	11	1	**34**	**50.8**	0	1	14	5	2	3	0	**25**	**29.3**	0	2	37	6	5	4	2	**56**	**64.5**
Hourly Total	**0**	**0**	**69**	**20**	**21**	**38**	**1**	**149**	**209.9**	**0**	**1**	**65**	**15**	**8**	**16**	**1**	**106**	**131.2**	**0**	**4**	**239**	**27**	**9**	**12**	**9**	**300**	**326.7**
TOTAL	**0**	**0**	**625**	**182**	**55**	**127**	**4**	**993**	**1189.6**	**0**	**2**	**149**	**39**	**16**	**48**	**1**	**255**	**325.2**	**0**	**6**	**957**	**93**	**20**	**30**	**23**	**1129**	**1197.4**
16:00 - 16:15	0	0	72	14	2	10	0	**98**	**112.0**	0	0	12	4	4	5	0	**25**	**33.5**	0	0	21	8	0	1	2	**32**	**35.3**
16:15 - 16:30	0	0	78	18	4	11	0	**111**	**127.3**	0	0	9	5	0	3	0	**17**	**20.9**	0	0	39	6	0	1	2	**48**	**51.3**
16:30 - 16:45	0	0	81	11	0	6	1	**99**	**107.8**	0	0	12	2	0	4	0	**18**	**23.2**	0	0	9	9	2	2	1	**23**	**27.6**
16:45 - 17:00	0	0	67	6	2	7	0	**82**	**92.1**	0	0	14	3	0	3	0	**20**	**23.9**	0	0	28	14	0	1	3	**46**	**50.3**
Hourly Total	**0**	**0**	**298**	**49**	**8**	**34**	**1**	**390**	**439.2**	**0**	**0**	**47**	**14**	**4**	**15**	**0**	**80**	**101.5**	**0**	**0**	**97**	**37**	**2**	**5**	**8**	**149**	**164.5**
17:00 - 17:15	0	0	95	4	1	3	0	**103**	**107.4**	0	0	9	2	3	6	0	**20**	**29.3**	0	1	24	6	5	2	1	**39**	**44.5**
17:15 - 17:30	0	0	64	5	3	7	0	**79**	**89.6**	0	0	12	2	0	5	0	**19**	**25.5**	0	0	50	12	3	1	3	**69**	**74.8**
17:30 - 17:45	0	0	72	7	1	7	0	**87**	**96.6**	0	0	13	0	0	4	0	**17**	**22.2**	0	0	21	7	2	2	2	**34**	**39.6**
17:45 - 18:00	0	0	77	8	3	10	0	**98**	**112.5**	0	0	19	5	0	8	0	**32**	**42.4**	0	0	29	4	1	2	0	**36**	**39.1**
Hourly Total	**0**	**0**	**308**	**24**	**8**	**27**	**0**	**367**	**406.1**	**0**	**0**	**53**	**9**	**3**	**23**	**0**	**88**	**119.4**	**0**	**1**	**124**	**29**	**11**	**7**	**6**	**178**	**198.0**
18:00 - 18:15	0	0	105	6	2	7	1	**121**	**132.1**	0	0	11	0	2	4	0	**17**	**23.2**	0	0	40	11	0	4	2	**57**	**64.2**
18:15 - 18:30	0	0	58	2	3	5	1	**69**	**78.0**	0	1	10	1	1	3	0	**16**	**19.8**	0	1	79	9	1	3	3	**96**	**102.8**
18:30 - 18:45	0	0	78	3	2	5	0	**88**	**95.5**	0	0	11	2	0	2	0	**15**	**17.6**	0	1	58	3	2	0	0	**64**	**64.4**
18:45 - 19:00	0	0	34	2	1	5	0	**42**	**49.0**	0	0	16	6	0	4	0	**26**	**31.2**	0	0	47	5	3	1	3	**59**	**64.8**
Hourly Total	**0**	**0**	**275**	**13**	**8**	**22**	**2**	**320**	**354.6**	**0**	**1**	**48**	**9**	**3**	**13**	**0**	**74**	**91.8**	**0**	**2**	**224**	**28**	**6**	**8**	**8**	**276**	**296.2**
TOTAL	**0**	**0**	**881**	**86**	**24**	**83**	**3**	**1077**	**1199.9**	**0**	**1**	**148**	**32**	**10**	**51**	**0**	**242**	**312.7**	**0**	**3**	**445**	**94**	**19**	**20**	**22**	**603**	**658.7**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: M1 J23A Access

	To Donington Services Access									To A453 (W)									To A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	16	6	3	5	0	**30**	**38.0**	0	0	60	14	2	6	0	**82**	**90.8**	0	0	97	28	7	27	2	**161**	**201.6**
07:15 - 07:30	0	0	13	6	4	5	0	**28**	**36.5**	0	0	53	17	3	1	0	**74**	**76.8**	0	0	172	29	8	19	0	**228**	**256.7**
07:30 - 07:45	0	0	11	7	2	7	1	**28**	**39.1**	0	0	89	10	2	7	0	**108**	**118.1**	0	0	184	38	10	23	2	**257**	**293.9**
07:45 - 08:00	0	0	21	11	2	3	0	**37**	**41.9**	0	0	121	12	2	2	0	**137**	**140.6**	0	1	199	28	9	22	0	**259**	**291.5**
Hourly Total	**0**	**0**	**61**	**30**	**11**	**20**	**1**	**123**	**155.5**	**0**	**0**	**323**	**53**	**9**	**16**	**0**	**401**	**426.3**	**0**	**1**	**652**	**123**	**34**	**91**	**4**	**905**	**1043.7**
08:00 - 08:15	0	0	19	3	2	3	0	**27**	**31.9**	0	0	89	12	3	3	0	**107**	**112.4**	0	0	152	29	8	13	0	**202**	**222.9**
08:15 - 08:30	0	0	17	13	4	8	0	**42**	**54.4**	0	0	107	8	1	7	0	**123**	**132.6**	0	0	163	34	15	22	0	**234**	**270.1**
08:30 - 08:45	0	0	20	7	2	7	0	**36**	**46.1**	0	0	85	13	6	4	1	**109**	**118.2**	0	0	102	15	8	25	1	**151**	**188.5**
08:45 - 09:00	0	0	22	5	0	6	0	**33**	**40.8**	0	0	90	6	3	4	0	**103**	**109.7**	0	0	106	21	10	15	0	**152**	**176.5**
Hourly Total	**0**	**0**	**78**	**28**	**8**	**24**	**0**	**138**	**173.2**	**0**	**0**	**371**	**39**	**13**	**18**	**1**	**442**	**472.9**	**0**	**0**	**523**	**99**	**41**	**75**	**1**	**739**	**858.0**
09:00 - 09:15	0	0	24	8	3	9	0	**44**	**57.2**	0	0	69	8	5	4	0	**86**	**93.7**	0	0	108	18	8	19	0	**153**	**181.7**
09:15 - 09:30	0	0	19	7	1	9	0	**36**	**48.2**	0	0	40	8	4	5	1	**58**	**67.5**	0	0	67	20	6	19	0	**112**	**139.7**
09:30 - 09:45	0	0	22	6	2	10	0	**40**	**54.0**	0	0	31	3	6	5	0	**45**	**54.5**	0	0	74	17	7	9	1	**108**	**124.2**
09:45 - 10:00	0	0	16	6	2	6	0	**30**	**38.8**	0	0	30	11	1	6	0	**48**	**56.3**	0	0	56	15	9	16	0	**96**	**121.3**
Hourly Total	**0**	**0**	**81**	**27**	**8**	**34**	**0**	**150**	**198.2**	**0**	**0**	**170**	**30**	**16**	**20**	**1**	**237**	**272.0**	**0**	**0**	**305**	**70**	**30**	**63**	**1**	**469**	**566.9**
TOTAL	**0**	**0**	**220**	**85**	**27**	**78**	**1**	**411**	**526.9**	**0**	**0**	**864**	**122**	**38**	**54**	**2**	**1080**	**1171.2**	**0**	**1**	**1480**	**292**	**105**	**229**	**6**	**2113**	**2468.6**
16:00 - 16:15	0	0	27	5	2	9	0	**43**	**55.7**	0	0	79	5	4	6	1	**95**	**105.8**	0	0	81	35	9	13	0	**138**	**159.4**
16:15 - 16:30	0	0	20	5	2	3	0	**30**	**34.9**	0	0	59	9	4	8	0	**80**	**92.4**	0	0	97	36	2	16	2	**153**	**176.8**
16:30 - 16:45	0	0	25	6	1	5	0	**37**	**44.0**	0	0	85	17	1	3	0	**106**	**110.4**	0	1	110	27	5	16	0	**159**	**181.7**
16:45 - 17:00	0	0	26	13	2	4	0	**45**	**51.2**	0	0	101	16	2	4	0	**123**	**129.2**	0	1	101	23	4	0	0	**129**	**130.4**
Hourly Total	**0**	**0**	**98**	**29**	**7**	**21**	**0**	**155**	**185.8**	**0**	**0**	**324**	**47**	**11**	**21**	**1**	**404**	**437.8**	**0**	**2**	**389**	**121**	**20**	**45**	**2**	**579**	**648.3**
17:00 - 17:15	0	0	19	6	4	7	0	**36**	**47.1**	0	1	105	7	2	1	0	**116**	**117.7**	0	0	141	19	6	18	0	**184**	**210.4**
17:15 - 17:30	0	0	26	5	0	4	0	**35**	**40.2**	0	0	84	5	2	7	0	**98**	**108.1**	0	0	194	20	7	17	0	**238**	**263.6**
17:30 - 17:45	0	0	17	12	0	6	0	**35**	**42.8**	0	0	95	6	2	0	0	**103**	**104.0**	0	0	174	15	2	11	0	**202**	**217.3**
17:45 - 18:00	0	0	24	2	3	3	0	**32**	**37.4**	0	0	88	11	3	1	0	**103**	**105.8**	0	0	130	7	0	9	1	**147**	**159.7**
Hourly Total	**0**	**0**	**86**	**25**	**7**	**20**	**0**	**138**	**167.5**	**0**	**1**	**372**	**29**	**9**	**9**	**0**	**420**	**435.6**	**0**	**0**	**639**	**61**	**15**	**55**	**1**	**771**	**851.0**
18:00 - 18:15	0	0	23	2	1	6	0	**32**	**40.3**	0	0	60	3	1	0	0	**64**	**64.5**	0	0	105	3	6	14	0	**128**	**149.2**
18:15 - 18:30	0	0	12	4	0	2	0	**18**	**20.6**	0	0	38	1	1	4	0	**44**	**49.7**	0	0	76	6	1	7	0	**90**	**99.6**
18:30 - 18:45	0	0	3	1	1	0	0	**5**	**5.5**	0	0	25	4	1	2	0	**32**	**35.1**	0	0	26	1	1	4	0	**32**	**37.7**
18:45 - 19:00	0	0	32	7	2	4	0	**45**	**51.2**	0	0	39	3	1	6	0	**49**	**57.3**	0	0	93	8	3	9	0	**113**	**126.2**
Hourly Total	**0**	**0**	**70**	**14**	**4**	**12**	**0**	**100**	**117.6**	**0**	**0**	**162**	**11**	**4**	**12**	**0**	**189**	**206.6**	**0**	**0**	**300**	**18**	**11**	**34**	**0**	**363**	**412.7**
TOTAL	**0**	**0**	**254**	**68**	**18**	**53**	**0**	**393**	**470.9**	**0**	**1**	**858**	**87**	**24**	**42**	**1**	**1013**	**1080.0**	**0**	**2**	**1328**	**200**	**46**	**134**	**3**	**1713**	**1912.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: Donington Services Access

	To A453 (W)									To A453 (N)										To M1 J23A Access									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs		CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	9	1	2	0	0	**12**	**13.0**	0	0	8	10	3	8	0	**29**	**40.9**		0	0	8	3	1	7	0	**19**	**28.6**	
07:15 - 07:30	0	0	7	1	2	0	0	**10**	**11.0**	0	0	10	8	3	2	0	**23**	**27.1**		0	0	9	4	4	6	0	**23**	**32.8**	
07:30 - 07:45	0	0	7	3	0	0	0	**10**	**10.0**	0	0	7	8	2	10	0	**27**	**41.0**		0	0	6	2	2	3	0	**13**	**17.9**	
07:45 - 08:00	0	0	9	1	2	1	0	**13**	**15.3**	0	0	8	5	5	14	0	**32**	**52.7**		0	0	14	5	0	5	0	**24**	**30.5**	
Hourly Total	**0**	**0**	**32**	**6**	**6**	**1**	**0**	**45**	**49.3**	**0**	**0**	**33**	**31**	**13**	**34**	**0**	**111**	**161.7**		**0**	**0**	**37**	**14**	**7**	**21**	**0**	**79**	**109.8**	
08:00 - 08:15	0	0	12	2	1	0	0	**15**	**15.5**	0	0	1	4	3	5	0	**13**	**21.0**		0	0	24	5	2	4	0	**35**	**41.2**	
08:15 - 08:30	0	0	11	5	1	0	0	**17**	**17.5**	0	0	4	4	2	7	0	**17**	**27.1**		0	0	23	10	1	6	0	**40**	**48.3**	
08:30 - 08:45	0	0	13	1	2	0	0	**16**	**17.0**	0	0	5	7	3	3	0	**18**	**23.4**		0	0	21	6	2	6	0	**35**	**43.8**	
08:45 - 09:00	0	0	14	2	2	0	0	**18**	**19.0**	0	0	0	2	1	3	1	**7**	**12.4**		0	0	19	3	3	3	0	**28**	**33.4**	
Hourly Total	**0**	**0**	**50**	**10**	**6**	**0**	**0**	**66**	**69.0**	**0**	**0**	**10**	**17**	**9**	**18**	**1**	**55**	**83.9**		**0**	**0**	**87**	**24**	**8**	**19**	**0**	**138**	**166.7**	
09:00 - 09:15	0	0	6	3	0	0	0	**9**	**9.0**	0	0	7	6	1	7	0	**21**	**30.6**		0	0	27	3	2	5	0	**37**	**44.5**	
09:15 - 09:30	0	0	10	2	1	1	0	**14**	**15.8**	0	0	20	5	3	6	0	**34**	**43.3**		0	0	16	7	2	4	0	**29**	**35.2**	
09:30 - 09:45	0	0	12	2	1	0	0	**15**	**15.5**	0	0	10	2	0	6	0	**18**	**25.8**		0	0	20	5	4	3	0	**32**	**37.9**	
09:45 - 10:00	0	0	8	2	1	0	1	**12**	**13.5**	0	0	13	8	0	11	0	**32**	**46.3**		0	0	12	4	1	6	0	**23**	**31.3**	
Hourly Total	**0**	**0**	**36**	**9**	**3**	**1**	**1**	**50**	**53.8**	**0**	**0**	**50**	**21**	**4**	**30**	**0**	**105**	**146.0**		**0**	**0**	**75**	**19**	**9**	**18**	**0**	**121**	**148.9**	
TOTAL	**0**	**0**	**118**	**25**	**15**	**2**	**1**	**161**	**172.1**	**0**	**0**	**93**	**69**	**26**	**82**	**1**	**271**	**391.6**		**0**	**0**	**199**	**57**	**24**	**58**	**0**	**338**	**425.4**	
16:00 - 16:15	0	0	13	4	1	1	0	**19**	**20.8**	0	0	23	2	0	5	0	**30**	**36.5**		0	0	18	5	2	5	0	**30**	**37.5**	
16:15 - 16:30	0	0	7	1	1	1	0	**10**	**11.8**	0	0	15	4	2	4	0	**25**	**31.2**		0	0	21	3	1	6	0	**31**	**39.3**	
16:30 - 16:45	0	0	15	2	0	0	0	**17**	**17.0**	0	1	25	1	5	7	0	**39**	**50.0**		0	0	20	5	3	5	0	**33**	**41.0**	
16:45 - 17:00	0	0	13	1	0	0	0	**14**	**14.0**	0	0	10	2	2	4	0	**18**	**24.2**		0	0	22	5	0	3	0	**30**	**33.9**	
Hourly Total	**0**	**0**	**48**	**8**	**2**	**2**	**0**	**60**	**63.6**	**0**	**1**	**73**	**9**	**9**	**20**	**0**	**112**	**141.9**		**0**	**0**	**81**	**18**	**6**	**19**	**0**	**124**	**151.7**	
17:00 - 17:15	0	0	9	3	0	0	0	**12**	**12.0**	0	0	9	7	0	5	0	**21**	**27.5**		0	0	31	4	0	2	0	**37**	**39.6**	
17:15 - 17:30	0	0	8	1	1	0	0	**10**	**10.5**	0	0	21	1	2	1	0	**25**	**27.3**		0	0	19	8	2	4	0	**33**	**39.2**	
17:30 - 17:45	0	0	13	3	0	0	0	**16**	**16.0**	0	0	13	0	0	1	0	**14**	**15.3**		0	0	22	2	0	4	0	**28**	**33.2**	
17:45 - 18:00	0	0	13	2	0	0	0	**15**	**15.0**	0	0	17	8	0	3	0	**28**	**31.9**		0	0	21	2	0	3	0	**26**	**29.9**	
Hourly Total	**0**	**0**	**43**	**9**	**1**	**0**	**0**	**53**	**53.5**	**0**	**0**	**60**	**16**	**2**	**10**	**0**	**88**	**102.0**		**0**	**0**	**93**	**16**	**2**	**13**	**0**	**124**	**141.9**	
18:00 - 18:15	0	0	13	2	1	1	0	**17**	**18.8**	0	0	26	4	0	3	0	**33**	**36.9**		0	0	12	2	1	5	0	**20**	**27.0**	
18:15 - 18:30	0	0	12	2	1	1	0	**16**	**17.8**	0	0	15	2	0	2	0	**19**	**21.6**		0	0	11	3	3	4	0	**21**	**27.7**	
18:30 - 18:45	0	1	9	0	0	1	0	**11**	**11.7**	0	0	17	2	0	4	0	**23**	**28.2**		0	0	9	0	0	1	0	**10**	**11.3**	
18:45 - 19:00	0	0	10	0	0	0	0	**10**	**10.0**	0	0	14	2	0	0	0	**16**	**16.0**		0	0	13	1	1	3	0	**18**	**22.4**	
Hourly Total	**0**	**1**	**44**	**4**	**2**	**3**	**0**	**54**	**58.3**	**0**	**0**	**72**	**10**	**0**	**9**	**0**	**91**	**102.7**		**0**	**0**	**45**	**6**	**5**	**13**	**0**	**69**	**88.4**	
TOTAL	**0**	**1**	**135**	**21**	**5**	**5**	**0**	**167**	**175.4**	**0**	**1**	**205**	**35**	**11**	**39**	**0**	**291**	**346.6**		**0**	**0**	**219**	**40**	**13**	**45**	**0**	**317**	**382.0**	

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Thursday 3rd November 2022
Junction: 4
Approach: A453 West

	To A453 (N)									To M1 J23A Access										To Donington Services Access								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs		CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	46	10	0	6	3	**65**	**75.8**	0	0	29	1	2	4	0	**36**	**42.2**		0	0	12	1	0	0	0	**13**	**13.0**
07:15 - 07:30	0	0	85	16	2	6	0	**109**	**117.8**	0	1	25	3	5	2	0	**36**	**40.5**		0	1	5	2	1	0	0	**9**	**8.9**
07:30 - 07:45	0	1	81	11	5	8	3	**109**	**124.3**	0	0	32	10	4	6	1	**53**	**63.8**		0	0	4	0	0	0	0	**4**	**4.0**
07:45 - 08:00	0	0	77	12	0	2	0	**91**	**93.6**	0	0	35	5	4	3	2	**49**	**56.9**		0	0	7	0	0	0	0	**7**	**7.0**
Hourly Total	**0**	**1**	**289**	**49**	**7**	**22**	**6**	**374**	**411.5**	**0**	**1**	**121**	**19**	**15**	**15**	**3**	**174**	**203.4**		**0**	**1**	**28**	**3**	**1**	**0**	**0**	**33**	**32.9**
08:00 - 08:15	0	0	76	12	4	6	2	**100**	**111.8**	0	0	48	16	1	5	1	**71**	**79.0**		0	0	2	1	0	0	0	**3**	**3.0**
08:15 - 08:30	0	0	81	17	3	5	2	**108**	**118.0**	0	0	48	19	1	8	0	**76**	**86.9**		0	0	7	0	2	0	0	**9**	**10.0**
08:30 - 08:45	0	0	60	15	4	7	2	**88**	**101.1**	0	0	30	8	3	5	1	**47**	**56.0**		0	0	6	1	0	0	0	**7**	**7.0**
08:45 - 09:00	0	0	48	7	3	8	3	**69**	**83.9**	0	0	24	3	3	7	0	**37**	**47.6**		0	0	3	2	0	1	0	**6**	**7.3**
Hourly Total	**0**	**0**	**265**	**51**	**14**	**26**	**9**	**365**	**414.8**	**0**	**0**	**150**	**46**	**8**	**25**	**2**	**231**	**269.5**		**0**	**0**	**18**	**4**	**2**	**1**	**0**	**25**	**27.3**
09:00 - 09:15	0	0	26	3	5	8	2	**44**	**58.9**	0	0	20	4	4	1	0	**29**	**32.3**		0	0	7	1	1	0	0	**9**	**9.5**
09:15 - 09:30	0	1	25	9	6	2	4	**47**	**56.0**	0	0	21	4	0	4	0	**29**	**34.2**		0	0	4	4	0	0	0	**8**	**8.0**
09:30 - 09:45	0	0	24	11	7	1	2	**45**	**51.8**	0	0	12	3	1	3	0	**19**	**23.4**		0	0	7	3	0	1	0	**11**	**12.3**
09:45 - 10:00	0	0	31	8	2	4	4	**49**	**59.2**	0	0	9	5	0	2	0	**16**	**18.6**		0	0	5	0	1	1	0	**7**	**8.8**
Hourly Total	**0**	**1**	**106**	**31**	**20**	**15**	**12**	**185**	**225.9**	**0**	**0**	**62**	**16**	**5**	**10**	**0**	**93**	**108.5**		**0**	**0**	**23**	**8**	**2**	**2**	**0**	**35**	**38.6**
TOTAL	**0**	**2**	**660**	**131**	**41**	**63**	**27**	**924**	**1052.2**	**0**	**1**	**333**	**81**	**28**	**50**	**5**	**498**	**581.4**		**0**	**1**	**69**	**15**	**5**	**3**	**0**	**93**	**98.8**
16:00 - 16:15	0	0	161	12	2	3	3	**181**	**188.9**	0	0	66	11	2	8	1	**88**	**100.4**		0	0	4	2	2	0	0	**8**	**9.0**
16:15 - 16:30	0	0	136	12	3	2	1	**154**	**159.1**	0	0	25	7	3	2	0	**37**	**41.1**		0	0	8	2	0	0	0	**10**	**10.0**
16:30 - 16:45	0	0	126	9	0	2	1	**138**	**141.6**	0	0	68	15	0	2	0	**85**	**87.6**		0	0	9	2	2	0	0	**13**	**14.0**
16:45 - 17:00	0	0	133	16	0	1	3	**153**	**157.3**	0	0	48	1	1	2	1	**53**	**57.1**		0	0	10	1	0	0	0	**11**	**11.0**
Hourly Total	**0**	**0**	**556**	**49**	**5**	**8**	**8**	**626**	**646.9**	**0**	**0**	**207**	**34**	**6**	**14**	**2**	**263**	**286.2**		**0**	**0**	**31**	**7**	**4**	**0**	**0**	**42**	**44.0**
17:00 - 17:15	0	0	132	8	2	4	3	**149**	**158.2**	0	0	97	4	0	0	0	**101**	**101.0**		0	0	11	2	1	0	0	**14**	**14.5**
17:15 - 17:30	0	0	113	2	2	1	1	**119**	**122.3**	0	0	36	9	1	3	0	**49**	**53.4**		0	0	12	0	0	1	0	**13**	**14.3**
17:30 - 17:45	0	0	154	8	0	2	2	**166**	**170.6**	0	0	30	6	2	3	0	**41**	**45.9**		0	0	12	2	2	0	0	**16**	**17.0**
17:45 - 18:00	0	0	143	8	1	1	0	**153**	**154.8**	0	0	51	6	1	4	0	**62**	**67.7**		0	0	7	1	0	0	0	**8**	**8.0**
Hourly Total	**0**	**0**	**542**	**26**	**5**	**8**	**6**	**587**	**605.9**	**0**	**0**	**214**	**25**	**4**	**10**	**0**	**253**	**268.0**		**0**	**0**	**42**	**5**	**3**	**1**	**0**	**51**	**53.8**
18:00 - 18:15	0	0	88	7	0	0	3	**98**	**101.0**	0	0	41	3	1	2	0	**47**	**50.1**		0	0	8	1	0	0	0	**9**	**9.0**
18:15 - 18:30	0	0	83	7	1	1	2	**94**	**97.8**	0	0	28	4	1	1	0	**34**	**35.8**		0	0	8	0	0	0	0	**8**	**8.0**
18:30 - 18:45	0	1	74	4	0	7	1	**87**	**96.5**	0	0	16	2	1	2	0	**21**	**24.1**		0	0	3	0	1	0	0	**4**	**4.5**
18:45 - 19:00	0	0	57	3	2	2	3	**67**	**73.6**	0	0	16	2	0	3	0	**21**	**24.9**		0	0	5	1	0	0	0	**6**	**6.0**
Hourly Total	**0**	**1**	**302**	**21**	**3**	**10**	**9**	**346**	**368.9**	**0**	**0**	**101**	**11**	**3**	**8**	**0**	**123**	**134.9**		**0**	**0**	**24**	**2**	**1**	**0**	**0**	**27**	**27.5**
TOTAL	**0**	**1**	**1400**	**96**	**13**	**26**	**23**	**1559**	**1621.7**	**0**	**0**	**522**	**70**	**13**	**32**	**2**	**639**	**689.1**		**0**	**0**	**97**	**14**	**8**	**1**	**0**	**120**	**125.3**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

APPENDIX 4: Traffic Survey Data

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 North

	Left to A6 Kegworth Bypass									Ahead to A453 (S)									Right to Wilders Way								U-Turn							
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	2	4	0	1	0	7	8.3	0	0	70	10	4	7	1	92	104.1	0	0	90	5	3	7	0	105	115.6	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	15	2	2	1	0	20	22.3	0	0	66	12	2	7	0	87	97.1	0	0	107	5	1	7	1	121	131.6	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	0	5	2	2	2	0	11	14.6	0	0	65	8	0	6	0	79	86.8	0	1	106	5	2	5	0	119	125.9	0	0	1	1	0	0	0	2	2.0
07:45 - 08:00	0	0	8	0	2	6	0	16	24.8	0	0	88	12	1	4	0	105	110.7	0	0	83	2	1	7	1	94	104.6	0	0	1	0	0	0	0	1	1.0
Hourly Total	**0**	**0**	**30**	**8**	**6**	**10**	**0**	**54**	**70.0**	**0**	**0**	**289**	**42**	**7**	**24**	**1**	**363**	**398.7**	**0**	**1**	**386**	**17**	**7**	**26**	**2**	**439**	**477.7**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**4.0**
08:00 - 08:15	0	0	9	2	5	3	0	19	25.4	0	0	95	7	1	5	0	108	115.0	0	0	42	11	5	5	0	63	72.0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	6	1	1	0	0	8	8.5	0	0	91	4	3	3	0	101	106.4	0	0	35	4	3	5	0	47	55.0	0	0	3	0	1	0	0	4	4.5
08:30 - 08:45	0	0	7	1	1	1	0	10	11.8	0	0	107	7	4	0	0	118	120.0	0	1	28	9	1	10	1	50	63.9	0	0	0	0	0	1	0	1	2.3
08:45 - 09:00	0	1	5	3	4	5	0	18	25.9	0	0	87	10	4	5	0	106	114.5	0	0	40	5	1	3	1	50	55.4	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**1**	**27**	**7**	**11**	**9**	**0**	**55**	**71.6**	**0**	**0**	**380**	**28**	**12**	**13**	**0**	**433**	**455.9**	**0**	**1**	**145**	**29**	**10**	**23**	**2**	**210**	**246.3**	**0**	**0**	**5**	**0**	**1**	**1**	**0**	**7**	**8.8**
09:00 - 09:15	0	0	3	1	1	5	0	10	17.0	0	0	87	4	6	5	0	102	111.5	0	0	48	9	0	6	0	63	70.8	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	6	1	0	0	0	7	7.0	0	0	74	6	3	14	0	97	116.7	0	0	52	11	3	5	0	71	79.0	0	0	1	1	0	0	0	2	2.0
09:30 - 09:45	0	0	4	3	3	4	0	14	20.7	0	0	56	3	6	8	0	73	86.4	0	0	55	15	0	9	2	81	94.7	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	2	2	2	2	0	8	11.6	0	0	54	6	2	5	0	67	74.5	0	0	66	20	1	9	0	96	108.2	0	0	2	0	0	0	0	2	2.0
Hourly Total	**0**	**0**	**15**	**7**	**6**	**11**	**0**	**39**	**56.3**	**0**	**0**	**271**	**19**	**17**	**32**	**0**	**339**	**389.1**	**0**	**0**	**221**	**55**	**4**	**29**	**2**	**311**	**352.7**	**0**	**0**	**4**	**1**	**0**	**0**	**0**	**5**	**5.0**
TOTAL	**0**	**1**	**72**	**22**	**23**	**30**	**0**	**148**	**197.9**	**0**	**0**	**940**	**89**	**36**	**69**	**1**	**1135**	**1243.7**	**0**	**2**	**752**	**101**	**21**	**78**	**6**	**960**	**1076.7**	**0**	**0**	**12**	**2**	**1**	**1**	**0**	**16**	**17.8**
16:00 - 16:15	0	0	9	2	1	1	0	13	14.8	0	0	54	11	2	6	1	74	83.8	0	0	10	5	1	3	0	19	23.4	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	0	19	3	2	1	0	25	27.3	0	0	45	14	3	3	0	65	70.4	0	0	10	9	0	4	1	24	30.2	0	0	1	0	0	0	0	1	1.0
16:30 - 16:45	0	0	15	4	1	0	0	20	20.5	0	0	41	8	3	11	0	63	78.8	0	0	16	3	0	4	0	23	28.2	0	0	2	0	0	0	0	2	2.0
16:45 - 17:00	0	1	15	0	1	0	0	17	16.9	0	0	40	6	4	3	0	53	58.9	0	0	15	7	0	6	1	29	37.8	0	0	3	1	0	0	0	4	4.0
Hourly Total	**0**	**1**	**58**	**9**	**5**	**2**	**0**	**75**	**79.5**	**0**	**0**	**180**	**39**	**12**	**23**	**1**	**255**	**291.9**	**0**	**0**	**51**	**24**	**1**	**17**	**2**	**95**	**119.6**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**7**	**7.0**
17:00 - 17:15	0	0	13	2	0	0	0	15	15.0	0	0	45	8	4	8	1	66	79.4	0	0	19	13	0	4	0	36	41.2	0	0	1	0	0	0	0	1	1.0
17:15 - 17:30	0	0	22	1	1	1	0	25	26.8	0	1	58	1	3	10	0	73	86.9	0	1	31	13	0	6	1	52	60.2	0	0	3	0	0	0	0	3	3.0
17:30 - 17:45	0	1	17	0	2	1	0	21	22.7	0	0	73	4	3	4	0	84	90.7	0	3	54	11	0	4	0	72	75.4	0	0	2	0	0	0	0	2	2.0
17:45 - 18:00	0	0	11	5	0	0	0	16	16.0	0	0	70	2	3	7	0	82	92.6	0	0	66	14	0	3	0	83	86.9	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**1**	**63**	**8**	**3**	**2**	**0**	**77**	**80.5**	**0**	**1**	**246**	**15**	**13**	**29**	**1**	**305**	**349.6**	**0**	**4**	**170**	**51**	**0**	**17**	**1**	**243**	**263.7**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	**6.0**
18:00 - 18:15	0	0	7	0	0	2	0	9	11.6	0	0	42	3	2	7	0	54	64.1	0	1	103	10	0	3	0	117	120.3	0	0	2	0	0	0	0	2	2.0
18:15 - 18:30	0	0	12	3	0	0	0	15	15.0	0	1	59	3	0	4	0	67	71.6	0	1	103	14	0	2	1	121	124.0	0	0	1	0	0	0	0	1	1.0
18:30 - 18:45	0	0	10	0	1	1	0	12	13.8	0	0	84	0	4	4	0	92	99.2	0	0	54	12	0	4	0	70	75.2	0	0	0	0	0	1	0	1	2.3
18:45 - 19:00	0	0	10	0	0	2	0	12	14.6	0	0	80	1	1	4	0	86	91.7	0	0	43	9	0	4	1	57	63.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	**0**	**0**	**39**	**3**	**1**	**5**	**0**	**48**	**55.0**	**0**	**1**	**265**	**7**	**7**	**19**	**0**	**299**	**326.6**	**0**	**2**	**303**	**45**	**0**	**13**	**2**	**365**	**382.7**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**4**	**5.3**
TOTAL	**0**	**2**	**160**	**20**	**9**	**9**	**0**	**200**	**215.0**	**0**	**2**	**691**	**61**	**32**	**71**	**2**	**859**	**968.1**	**0**	**6**	**524**	**120**	**1**	**47**	**5**	**703**	**766.0**	**0**	**0**	**15**	**1**	**0**	**1**	**0**	**17**	**18.3**

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A6 Kegworth Bypass

	Left to A453 (S)									Ahead to Wilders Way									Right to A453 (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	2	15	3	0	0	0	20	18.8	0	1	87	11	10	2	0	111	118.0	0	0	74	10	8	3	2	97	106.9
07:15 - 07:30	0	0	26	2	1	0	0	29	29.5	0	1	101	16	4	1	1	124	127.7	0	1	65	18	5	0	0	89	90.9
07:30 - 07:45	0	0	29	3	1	0	1	34	35.5	0	0	76	10	2	0	2	90	93.0	0	0	61	10	1	0	0	72	72.5
07:45 - 08:00	0	0	29	5	0	1	0	35	36.3	0	0	109	21	3	3	1	137	143.4	0	0	92	21	4	2	0	119	123.6
Hourly Total	**0**	**2**	**99**	**13**	**2**	**1**	**1**	**118**	**120.1**	**0**	**2**	**373**	**58**	**19**	**6**	**4**	**462**	**482.1**	**0**	**1**	**292**	**59**	**18**	**5**	**2**	**377**	**393.9**
08:00 - 08:15	0	0	35	1	0	0	0	36	36.0	1	0	74	15	3	1	1	95	98.0	0	0	73	13	3	1	0	90	92.8
08:15 - 08:30	0	0	30	2	2	2	1	37	41.6	0	3	69	19	2	1	0	94	94.5	0	3	66	16	1	2	0	88	89.3
08:30 - 08:45	0	1	41	7	1	3	0	53	56.8	0	1	46	14	3	1	1	66	69.2	0	1	43	12	2	2	0	60	63.0
08:45 - 09:00	0	0	31	0	4	0	0	35	37.0	0	0	54	11	6	3	0	74	80.9	0	0	51	10	6	3	0	70	76.9
Hourly Total	**0**	**1**	**137**	**10**	**7**	**5**	**1**	**161**	**171.4**	**1**	**4**	**243**	**59**	**14**	**6**	**2**	**329**	**342.6**	**0**	**4**	**233**	**51**	**12**	**8**	**0**	**308**	**322.0**
09:00 - 09:15	0	0	24	5	0	1	0	30	31.3	0	0	61	13	6	3	3	86	95.9	0	0	54	12	7	3	1	77	85.4
09:15 - 09:30	0	0	17	4	1	0	0	22	22.5	0	0	34	12	3	4	1	54	61.7	0	0	32	12	4	4	0	52	59.2
09:30 - 09:45	0	0	17	5	0	1	0	23	24.3	0	0	30	12	1	2	0	45	48.1	0	0	28	9	1	1	0	39	40.8
09:45 - 10:00	0	0	9	4	0	1	1	15	17.3	0	0	37	19	3	3	0	62	67.4	0	0	26	16	4	3	0	49	54.9
Hourly Total	**0**	**0**	**67**	**18**	**1**	**3**	**1**	**90**	**95.4**	**0**	**0**	**162**	**56**	**13**	**12**	**4**	**247**	**273.1**	**0**	**0**	**140**	**49**	**16**	**11**	**1**	**217**	**240.3**
TOTAL	**0**	**3**	**303**	**41**	**10**	**9**	**3**	**369**	**386.9**	**1**	**6**	**778**	**173**	**46**	**24**	**10**	**1038**	**1097.8**	**0**	**5**	**665**	**159**	**46**	**24**	**3**	**902**	**956.2**
16:00 - 16:15	0	0	20	6	0	0	1	27	28.0	0	0	50	9	7	4	0	70	78.7	0	0	47	13	7	4	0	71	79.7
16:15 - 16:30	0	0	16	5	2	0	0	23	24.0	0	0	77	17	2	5	1	102	110.5	0	1	67	16	2	5	0	91	97.9
16:30 - 16:45	0	0	28	9	0	1	1	39	41.3	0	0	74	20	1	1	2	98	101.8	0	0	76	21	1	1	0	99	100.8
16:45 - 17:00	0	0	17	4	0	0	0	21	21.0	0	0	85	15	2	0	1	103	105.0	0	0	88	16	1	1	0	106	107.8
Hourly Total	**0**	**0**	**81**	**24**	**2**	**1**	**2**	**110**	**114.3**	**0**	**0**	**286**	**61**	**12**	**10**	**4**	**373**	**396.0**	**0**	**1**	**278**	**66**	**11**	**11**	**0**	**367**	**386.2**
17:00 - 17:15	0	0	25	4	2	0	0	31	32.0	0	0	80	13	2	4	1	100	107.2	0	0	76	16	2	2	0	96	99.6
17:15 - 17:30	0	0	33	3	1	0	0	37	37.5	0	0	94	8	2	0	0	104	105.0	0	0	88	9	2	0	0	99	100.0
17:30 - 17:45	0	0	28	3	1	1	0	33	34.8	0	0	90	15	2	0	1	108	110.0	0	1	87	16	2	0	0	106	106.4
17:45 - 18:00	0	0	26	2	3	0	0	31	32.5	0	0	81	6	2	0	1	90	92.0	0	0	81	6	1	0	0	88	88.5
Hourly Total	**0**	**0**	**112**	**12**	**7**	**1**	**0**	**132**	**136.8**	**0**	**0**	**345**	**42**	**8**	**4**	**3**	**402**	**414.2**	**0**	**1**	**332**	**47**	**7**	**2**	**0**	**389**	**394.5**
18:00 - 18:15	0	0	24	4	1	0	0	29	29.5	0	0	71	2	1	1	0	75	76.8	0	0	55	4	1	1	0	61	62.8
18:15 - 18:30	0	0	14	3	0	0	0	17	17.0	0	1	55	6	1	0	2	65	66.9	0	0	45	8	1	0	0	54	54.5
18:30 - 18:45	0	0	24	2	0	0	1	27	28.0	0	0	47	7	0	0	1	55	56.0	0	0	37	6	0	0	0	43	43.0
18:45 - 19:00	0	0	14	3	0	1	0	18	19.3	0	1	30	2	0	0	0	33	32.4	0	1	24	4	0	0	0	29	28.4
Hourly Total	**0**	**0**	**76**	**12**	**1**	**1**	**1**	**91**	**93.8**	**0**	**2**	**203**	**17**	**2**	**1**	**3**	**228**	**232.1**	**0**	**1**	**161**	**22**	**2**	**1**	**0**	**187**	**188.7**
TOTAL	**0**	**0**	**269**	**48**	**10**	**3**	**3**	**333**	**344.9**	**0**	**2**	**834**	**120**	**22**	**15**	**10**	**1003**	**1042.3**	**0**	**3**	**771**	**135**	**20**	**14**	**0**	**943**	**969.4**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: A453 South

	Left to Wilders Way									Ahead to A453 (N)									Right to A6 Kegworth Bypass									U-Turn								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	36	1	3	5	2	**47**	**57.0**	0	0	102	22	5	8	0	**137**	**149.9**	0	0	13	2	1	1	0	**17**	**18.8**	0	0	0	0	0	0	0	**0**	**0.0**
07:15 - 07:30	0	0	102	3	3	11	1	**120**	**136.8**	0	0	143	24	4	15	0	**186**	**207.5**	0	0	17	11	1	1	1	**31**	**33.8**	0	0	2	0	0	0	0	**2**	**2.0**
07:30 - 07:45	0	0	66	2	1	7	3	**79**	**91.6**	0	2	162	35	5	19	1	**224**	**251.0**	0	0	21	6	1	1	0	**29**	**30.8**	0	0	2	0	0	0	0	**2**	**2.0**
07:45 - 08:00	0	0	57	2	1	9	1	**70**	**83.2**	0	0	184	43	8	20	0	**255**	**285.0**	0	0	26	10	1	0	1	**38**	**39.5**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**261**	**8**	**8**	**32**	**7**	**316**	**368.6**	**0**	**2**	**591**	**124**	**22**	**62**	**1**	**802**	**893.4**	**0**	**0**	**77**	**29**	**4**	**3**	**2**	**115**	**122.9**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**
08:00 - 08:15	0	0	25	4	1	4	1	**35**	**41.7**	0	0	215	40	9	2	1	**267**	**275.1**	0	0	24	5	3	0	0	**32**	**33.5**	0	0	0	0	0	0	0	**0**	**0.0**
08:15 - 08:30	0	0	15	2	3	12	3	**35**	**55.1**	0	0	191	49	9	18	1	**268**	**296.9**	0	0	17	11	0	0	0	**28**	**28.0**	0	0	2	0	0	0	0	**2**	**2.0**
08:30 - 08:45	0	0	16	2	1	11	1	**31**	**46.8**	0	1	143	30	8	31	0	**213**	**256.7**	0	0	17	10	4	2	1	**34**	**39.6**	0	0	0	0	0	0	0	**0**	**0.0**
08:45 - 09:00	0	0	27	6	1	9	2	**45**	**59.2**	0	0	92	24	6	19	0	**141**	**168.7**	0	0	23	2	0	0	0	**25**	**25.0**	0	0	1	0	0	0	0	**1**	**1.0**
Hourly Total	**0**	**0**	**83**	**14**	**6**	**36**	**7**	**146**	**202.8**	**0**	**1**	**641**	**143**	**32**	**70**	**2**	**889**	**997.4**	**0**	**0**	**81**	**28**	**7**	**2**	**1**	**119**	**126.1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**3.0**
09:00 - 09:15	0	0	18	3	3	5	2	**31**	**41.0**	0	0	86	28	5	25	0	**144**	**179.0**	0	0	18	7	1	1	0	**27**	**28.8**	0	0	2	0	0	0	0	**2**	**2.0**
09:15 - 09:30	0	0	20	6	1	7	1	**35**	**45.6**	0	0	88	22	11	19	0	**140**	**170.2**	0	0	26	6	0	2	0	**34**	**36.6**	0	0	1	0	0	0	0	**1**	**1.0**
09:30 - 09:45	0	0	28	12	1	2	3	**46**	**52.1**	0	0	81	19	4	21	0	**125**	**154.3**	0	0	22	2	3	1	0	**28**	**30.8**	0	0	0	0	0	0	0	**0**	**0.0**
09:45 - 10:00	0	0	21	12	2	7	2	**44**	**56.1**	0	0	76	17	14	11	0	**118**	**139.3**	0	0	7	6	0	1	0	**14**	**15.3**	0	0	1	0	0	0	0	**1**	**1.0**
Hourly Total	**0**	**0**	**87**	**33**	**7**	**21**	**8**	**156**	**194.8**	**0**	**0**	**331**	**86**	**34**	**76**	**0**	**527**	**642.8**	**0**	**0**	**73**	**21**	**4**	**5**	**0**	**103**	**111.5**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**4**	**4.0**
TOTAL	**0**	**0**	**431**	**55**	**21**	**89**	**22**	**618**	**766.2**	**0**	**3**	**1563**	**353**	**88**	**208**	**3**	**2218**	**2533.6**	**0**	**0**	**231**	**78**	**15**	**10**	**3**	**337**	**360.5**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**11**	**11.0**
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16:15 - 16:30	0	0	4	3	0	3	1	**11**	**15.9**	0	0	153	37	4	15	0	**209**	**230.5**	0	0	31	2	2	1	0	**36**	**38.3**	0	0	0	0	0	0	0	**0**	**0.0**
16:30 - 16:45	0	1	8	0	2	5	1	**17**	**24.9**	0	1	198	39	10	15	0	**263**	**286.9**	0	0	28	6	2	0	1	**37**	**39.0**	0	0	0	0	0	0	0	**0**	**0.0**
16:45 - 17:00	0	0	6	0	1	5	2	**14**	**23.0**	0	1	203	38	9	21	0	**272**	**303.2**	0	0	35	5	1	1	0	**42**	**43.8**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**1**	**21**	**5**	**4**	**19**	**8**	**58**	**92.1**	**0**	**2**	**759**	**164**	**33**	**71**	**0**	**1029**	**1136.6**	**0**	**0**	**120**	**21**	**5**	**2**	**1**	**149**	**155.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
17:00 - 17:15	0	0	8	0	1	9	2	**20**	**34.2**	0	1	243	30	10	23	0	**307**	**341.3**	0	0	29	7	1	0	0	**37**	**37.5**	0	0	0	0	0	0	0	**0**	**0.0**
17:15 - 17:30	0	0	13	0	3	3	3	**22**	**30.4**	0	0	206	19	5	17	1	**248**	**273.6**	0	0	46	7	1	0	0	**54**	**54.5**	0	0	0	0	0	0	0	**0**	**0.0**
17:30 - 17:45	0	0	10	0	4	6	1	**21**	**31.8**	0	0	211	27	8	11	0	**257**	**275.3**	0	0	53	2	0	0	0	**55**	**55.0**	0	0	0	0	0	0	0	**0**	**0.0**
17:45 - 18:00	0	0	18	1	1	5	2	**27**	**36.0**	0	0	179	23	2	10	0	**214**	**228.0**	0	1	36	1	1	2	0	**41**	**43.5**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**0**	**49**	**1**	**9**	**23**	**8**	**90**	**132.4**	**0**	**1**	**839**	**99**	**25**	**61**	**1**	**1026**	**1118.2**	**0**	**1**	**164**	**17**	**3**	**2**	**0**	**187**	**190.5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
18:00 - 18:15	0	0	34	1	1	2	3	**41**	**47.1**	0	1	156	23	3	14	1	**198**	**218.1**	0	0	30	5	0	1	1	**37**	**39.3**	0	0	0	0	0	0	0	**0**	**0.0**
18:15 - 18:30	0	1	51	0	0	2	0	**54**	**56.0**	0	0	154	9	6	8	0	**177**	**190.4**	0	0	24	3	1	0	0	**28**	**28.5**	0	0	0	0	0	0	0	**0**	**0.0**
18:30 - 18:45	0	0	28	0	0	3	1	**32**	**36.9**	0	0	91	6	6	13	0	**116**	**135.9**	0	0	23	7	1	0	0	**31**	**31.5**	0	0	0	0	0	0	0	**0**	**0.0**
18:45 - 19:00	0	0	24	0	0	8	1	**33**	**44.4**	0	0	98	10	4	7	0	**119**	**130.1**	0	1	27	2	0	1	0	**31**	**31.7**	0	0	0	0	0	0	0	**0**	**0.0**
Hourly Total	**0**	**1**	**137**	**1**	**1**	**15**	**5**	**160**	**184.4**	**0**	**1**	**499**	**48**	**19**	**42**	**1**	**610**	**674.5**	**0**	**1**	**104**	**17**	**2**	**2**	**1**	**127**	**131.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**0**	**2**	**207**	**7**	**14**	**57**	**21**	**308**	**408.9**	**0**	**4**	**2097**	**311**	**77**	**174**	**2**	**2665**	**2929.3**	**0**	**2**	**388**	**55**	**10**	**6**	**2**	**463**	**476.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Approach: Wilders Way

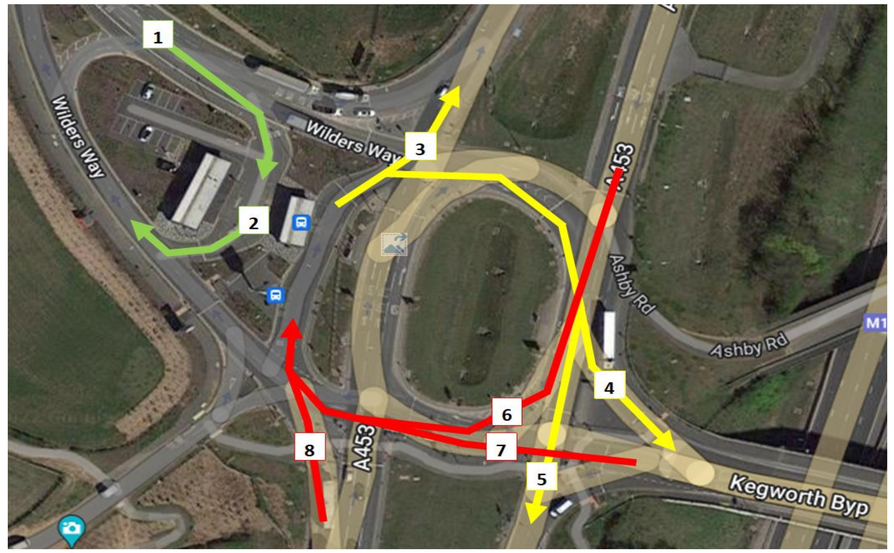
	Left to A453 (N)									Ahead to A6 Kegworth Bypass									Right to A453 (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	30	0	2	5	0	**37**	**44.5**	0	0	2	0	0	0	0	**2**	**2.0**	0	1	12	1	0	7	0	**21**	**29.5**
07:15 - 07:30	0	0	8	1	1	5	0	**15**	**22.0**	0	0	2	1	1	1	0	**5**	**6.8**	0	0	4	1	0	9	0	**14**	**25.7**
07:30 - 07:45	0	0	18	1	1	9	0	**29**	**41.2**	0	0	2	0	0	2	0	**4**	**6.6**	0	0	9	0	3	5	0	**17**	**25.0**
07:45 - 08:00	0	0	22	2	0	5	0	**29**	**35.5**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	13	1	2	6	0	**22**	**30.8**
Hourly Total	**0**	**0**	**78**	**4**	**4**	**24**	**0**	**110**	**143.2**	**0**	**0**	**6**	**1**	**1**	**3**	**0**	**11**	**15.4**	**0**	**1**	**38**	**3**	**5**	**27**	**0**	**74**	**111.0**
08:00 - 08:15	0	0	23	3	1	5	0	**32**	**39.0**	0	0	0	0	0	0	0	**0**	**0.0**	0	0	11	3	0	5	0	**19**	**25.5**
08:15 - 08:30	0	0	11	1	2	3	0	**17**	**21.9**	0	0	2	1	0	0	0	**3**	**3.0**	0	0	13	1	1	7	0	**22**	**31.6**
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08:45 - 09:00	0	0	5	2	0	10	0	**17**	**30.0**	0	0	1	0	0	0	0	**1**	**1.0**	0	0	2	2	0	6	0	**10**	**17.8**
Hourly Total	**0**	**0**	**47**	**9**	**6**	**24**	**0**	**86**	**120.2**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**6**	**6.0**	**0**	**0**	**33**	**7**	**2**	**24**	**0**	**66**	**98.2**
09:00 - 09:15	0	0	3	2	0	8	0	**13**	**23.4**	0	0	3	0	0	1	0	**4**	**5.3**	0	0	2	1	1	6	1	**11**	**20.3**
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09:30 - 09:45	0	0	12	2	0	8	0	**22**	**32.4**	0	0	0	1	1	1	0	**3**	**4.8**	0	0	3	2	0	9	0	**14**	**25.7**
09:45 - 10:00	0	0	31	48	2	6	1	**88**	**97.8**	0	0	6	1	1	0	0	**8**	**8.5**	0	0	6	6	1	7	2	**22**	**33.6**
Hourly Total	**0**	**0**	**53**	**53**	**4**	**28**	**1**	**139**	**178.4**	**0**	**0**	**9**	**2**	**2**	**2**	**0**	**15**	**18.6**	**0**	**0**	**13**	**11**	**3**	**30**	**3**	**60**	**103.5**
TOTAL	**0**	**0**	**178**	**66**	**14**	**76**	**1**	**335**	**441.8**	**0**	**0**	**19**	**5**	**3**	**5**	**0**	**32**	**40.0**	**0**	**1**	**84**	**21**	**10**	**81**	**3**	**200**	**312.7**
16:00 - 16:15	0	1	76	9	1	5	0	**92**	**98.4**	0	0	8	0	2	0	0	**10**	**11.0**	0	0	27	2	3	5	0	**37**	**45.0**
16:15 - 16:30	0	1	54	2	2	2	0	**61**	**64.0**	0	0	2	1	0	1	0	**4**	**5.3**	0	0	21	2	3	3	0	**29**	**34.4**
16:30 - 16:45	0	0	65	6	1	1	0	**73**	**74.8**	0	0	9	0	0	0	0	**9**	**9.0**	0	0	14	5	0	6	0	**25**	**32.8**
16:45 - 17:00	0	0	47	3	4	2	0	**56**	**60.6**	0	1	1	3	0	0	0	**5**	**4.4**	0	0	19	2	1	5	0	**27**	**34.0**
Hourly Total	**0**	**2**	**242**	**20**	**8**	**10**	**0**	**282**	**297.8**	**0**	**1**	**20**	**4**	**2**	**1**	**0**	**28**	**29.7**	**0**	**0**	**81**	**11**	**7**	**19**	**0**	**118**	**146.2**
17:00 - 17:15	0	0	40	7	1	5	0	**53**	**60.0**	0	0	2	0	0	0	0	**2**	**2.0**	0	0	25	2	3	10	1	**41**	**56.5**
17:15 - 17:30	0	0	42	8	0	4	0	**54**	**59.2**	0	0	4	1	0	1	0	**6**	**7.3**	0	1	26	2	2	5	0	**36**	**42.9**
17:30 - 17:45	0	0	58	4	0	7	0	**69**	**78.1**	0	1	2	1	0	0	0	**4**	**3.4**	0	0	21	2	3	7	0	**33**	**43.6**
17:45 - 18:00	0	0	33	4	4	4	0	**45**	**52.2**	0	0	6	0	1	0	0	**7**	**7.5**	0	1	16	4	3	6	0	**30**	**38.7**
Hourly Total	**0**	**0**	**173**	**23**	**5**	**20**	**0**	**221**	**249.5**	**0**	**1**	**14**	**2**	**1**	**1**	**0**	**19**	**20.2**	**0**	**2**	**88**	**10**	**11**	**28**	**1**	**140**	**181.7**
18:00 - 18:15	0	0	203	9	1	2	0	**215**	**218.1**	0	0	24	1	0	0	0	**25**	**25.0**	0	0	74	1	4	6	1	**86**	**96.8**
18:15 - 18:30	0	1	59	2	2	2	0	**66**	**69.0**	0	0	10	0	0	0	0	**10**	**10.0**	0	0	31	2	1	7	0	**41**	**50.6**
18:30 - 18:45	0	2	170	3	2	2	0	**179**	**181.4**	0	0	24	2	1	0	0	**27**	**27.5**	0	0	63	1	1	4	0	**69**	**74.7**
18:45 - 19:00	0	0	49	4	1	0	0	**54**	**54.5**	0	0	9	1	0	0	0	**10**	**10.0**	0	0	13	3	1	1	0	**18**	**19.8**
Hourly Total	**0**	**3**	**481**	**18**	**6**	**6**	**0**	**514**	**523.0**	**0**	**0**	**67**	**4**	**1**	**0**	**0**	**72**	**72.5**	**0**	**0**	**181**	**7**	**7**	**18**	**1**	**214**	**241.9**
TOTAL	**0**	**5**	**896**	**61**	**19**	**36**	**0**	**1017**	**1070.3**	**0**	**2**	**101**	**10**	**4**	**2**	**0**	**119**	**122.4**	**0**	**2**	**350**	**28**	**25**	**65**	**2**	**472**	**569.8**

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Road Data Services Ltd

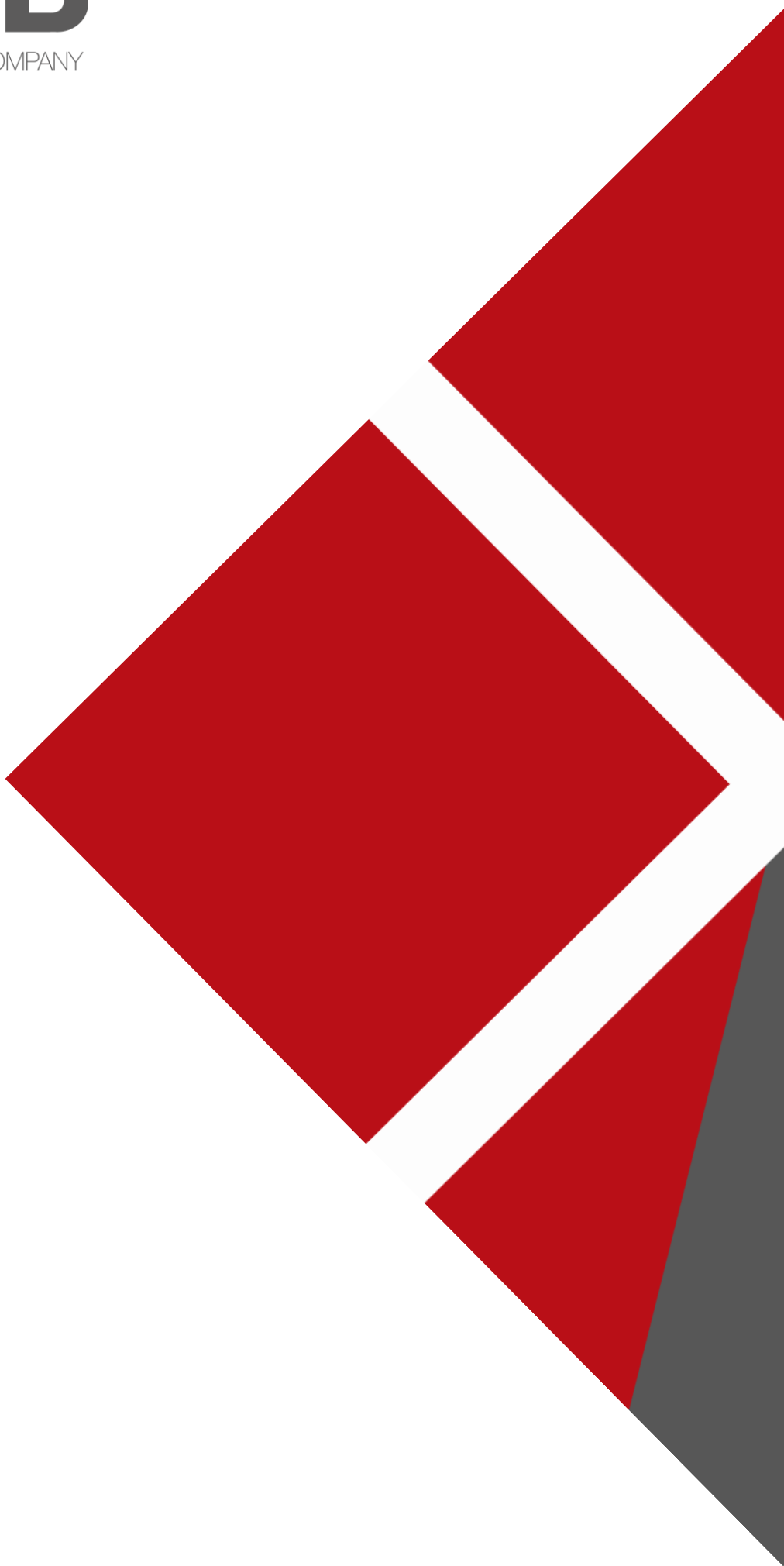
East Midlands Gateway
Wednesday 23rd November 2022
Junction: 1
Bus Moves

	Bus Moves							
TIME	Move 1	Move 2	Move 3	Move 4	Move 5	Move 6	Move 7	Move 8
07:00 - 07:15	1	1	0	1	1	0	0	2
07:15 - 07:30	2	3	1	0	3	1	2	1
07:30 - 07:45	1	2	1	1	2	0	2	2
07:45 - 08:00	2	2	0	2	2	1	1	2
Hourly Total	**6**	**8**	**2**	**4**	**8**	**2**	**5**	**7**
08:00 - 08:15	1	1	1	0	1	0	1	1
08:15 - 08:30	2	1	0	1	1	0	0	2
08:30 - 08:45	1	3	0	1	3	1	1	1
08:45 - 09:00	2	0	1	1	0	1	0	2
Hourly Total	**6**	**5**	**2**	**3**	**5**	**2**	**2**	**6**
09:00 - 09:15	1	2	1	1	2	0	2	2
09:15 - 09:30	2	1	0	1	1	0	1	1
09:30 - 09:45	1	2	0	1	2	1	0	3
09:45 - 10:00	2	1	1	1	1	0	0	2
Hourly Total	**6**	**6**	**2**	**4**	**6**	**1**	**3**	**8**
TOTAL	**18**	**19**	**6**	**11**	**19**	**5**	**10**	**21**
16:00 - 16:15	1	2	1	2	2	0	0	3
16:15 - 16:30	2	2	0	1	2	1	1	1
16:30 - 16:45	1	2	1	0	2	0	2	1
16:45 - 17:00	2	1	0	1	1	1	1	2
Hourly Total	**6**	**7**	**2**	**4**	**7**	**2**	**4**	**7**
17:00 - 17:15	1	1	1	1	1	0	1	2
17:15 - 17:30	2	3	1	1	3	1	0	3
17:30 - 17:45	1	1	1	0	1	0	1	1
17:45 - 18:00	2	0	0	1	0	0	1	1
Hourly Total	**6**	**5**	**3**	**3**	**5**	**1**	**3**	**7**
18:00 - 18:15	1	1	0	2	1	0	0	3
18:15 - 18:30	2	3	0	1	3	1	2	1
18:30 - 18:45	1	2	0	1	2	0	1	2
18:45 - 19:00	2	1	1	0	1	1	0	1
Hourly Total	**6**	**7**	**1**	**4**	**7**	**2**	**3**	**7**
TOTAL	**18**	**19**	**6**	**11**	**19**	**5**	**10**	**21**



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APPENDIX 4: VISSIM Local Model Validation Report (document reference EMG2-BWB-GEN-XX-RP-TR-0006_S2-P4)

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East Midlands Gateway, Phase 2

Local Model Validation Report (LMVR)

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August 2023

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CONTENTS

1. INTRODUCTION 1
Report Structure 1
2. NETWORK DEVELOPMENT 3
Model Approach 3
Model Coverage 3
Survey Data 3
Model Time Periods 6
Traffic Signals 6
3. MODEL CALIBRATION 8
Traffic Data 13
Convergence 13
Simulation 13
Network Performance 14
Calibration Methodology 15
Traffic Flow Calibration 15
4. MODEL VALIDATION 16
Introduction 16
Travel Time Survey 16
Validation Results 17
5. SUMMARY & CONCLUSIONS 20

FIGURES

Figure 1 Model Coverage
Figure 2: VISSIM Model Extents
Figure 3: Survey Locations
Figure 4: Journey time routes

TABLES

Table 1: Model Convergence Summary
Table 2: Network Performance
Table 3: Summary of Seed Stability Assessment
Table 4: Network Performance
Table 5: Summary of Traffic Flow Calibration
Table 6: Travel Time Validation
Table 7: Travel Time Validation Summary

APPENDICES

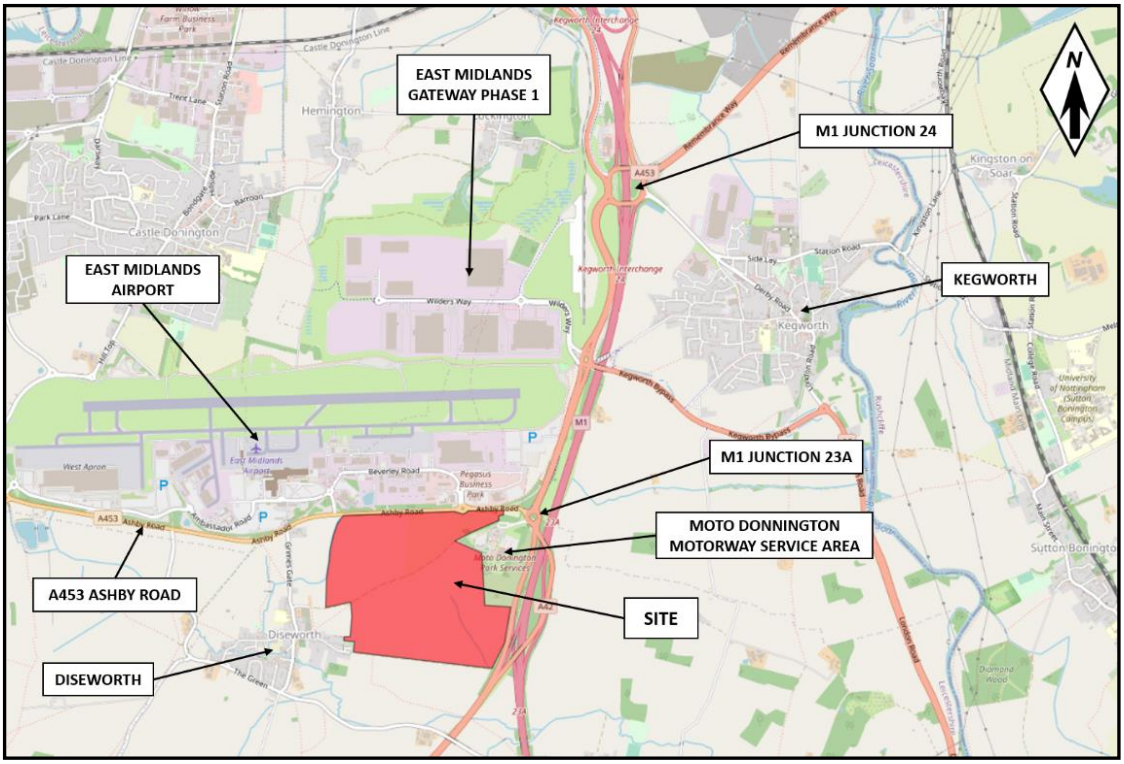
APPENDIX 1: TURNING COUNT CALIBRATION

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of East Midlands Gateway (EMG) site.

1.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use. The location of the proposed development is show in **Figure 1**.

Figure 1. Site Location



1.3 As part of East Midlands Gateway Phase 1, BWB obtained a copy of the M1 J24 VISSIM model network from National Highways in 2014. The model was validated and calibrated by AECOM to a base year of 2012. This model was utilised by BWB to assess the proposed highway network changes including improvements to M1 J24 as part of the EMG Phase 1. However, the model is now outdated and the proposed migitation as well as the scheme have been constructed on site since and is operational.

1.4 Therefore, to assess the impact of EMG Phase 2, a revalidation of the base model was required, this technical note has been produced to outline the modelling methodology undertaken as well as provide details of model calibration and validation.

Report Structure

1.5 Following this introduction, the remainder of this report is structured as follows:

- **Section 2:** Network Development, sets out the modelling parameters associated with the baseline model;

- **Section 3:** Model calibration, including comparison of manual turning count data against modelled flows.

- **Section 4:** Model validation comparing surveyed journey times with modelled journey times.

- **Section 5:** Summary and Conclusions.

2. NETWORK DEVELOPMENT

Model Approach

2.1 The PTV software package VISSIM is a microscopic, time-step, behaviour-based simulation tool developed to model traffic and public transport operations. VISSIM models individual vehicles and presents these movements visually, assisting in model validation and in the assessment of the performance of network improvement options.

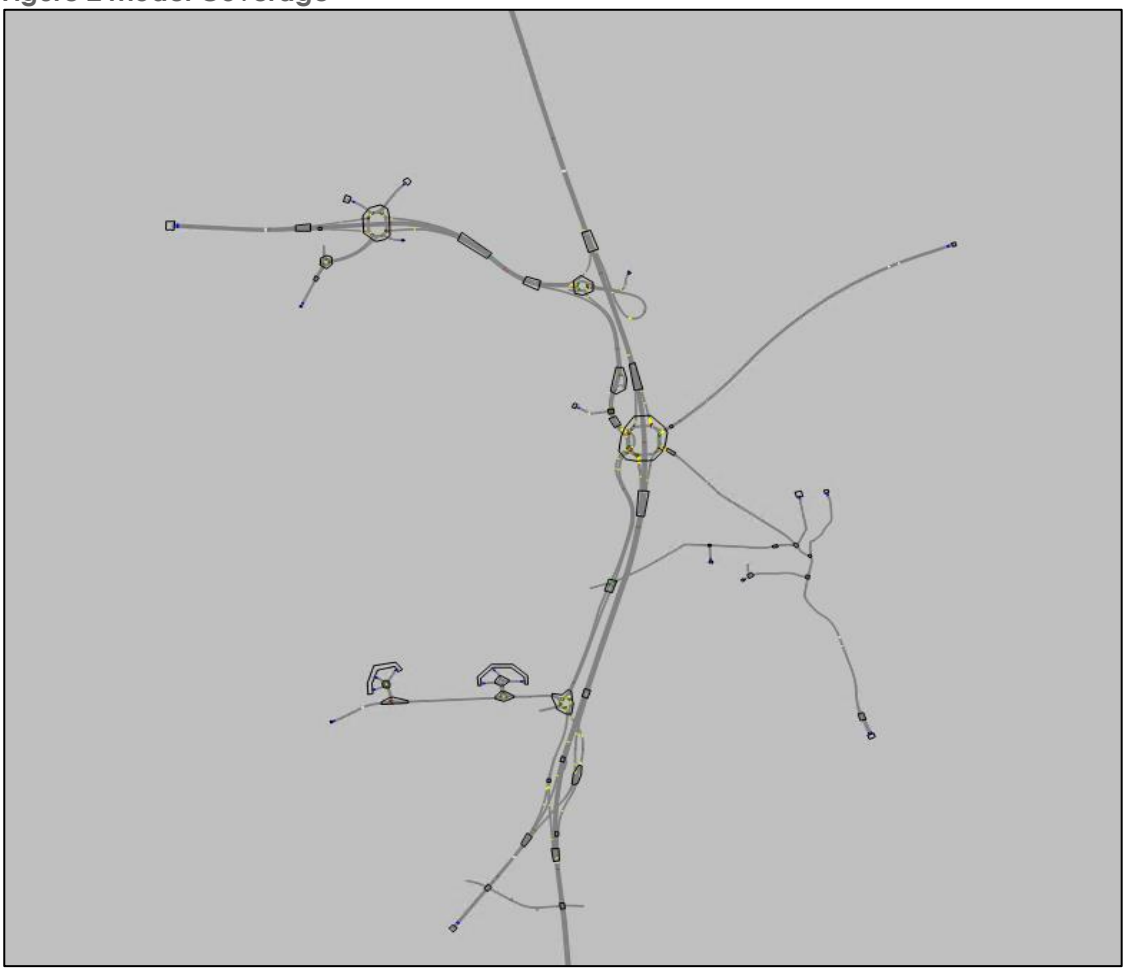
2.2 VISSIM provides output information such as queues, delays, and journey times on identified routes and other specific information. VISSIM also enables 3D videos to be produced providing a powerful visual simulation of the highway network.

2.3 The existing VISSIM model has utilised dynamics assignment for traffic flow input, therefore the this has been retained.

Model Coverage

2.4 The extents of the existing VISSIM model has been illustrated in **Figure 2** below.

Figure 2 Model Coverage



2.5 The existing model comprises of the following junctions.

i. A50 junction 1 Sawley Interchange;
ii. M1 J24a;
iii. M1 J24;
iv. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
v. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
vi. A453/Hunter Road/minor EMG Phase 2 access roundabout
vii. A453 East Midlands airport internal roundabouts.

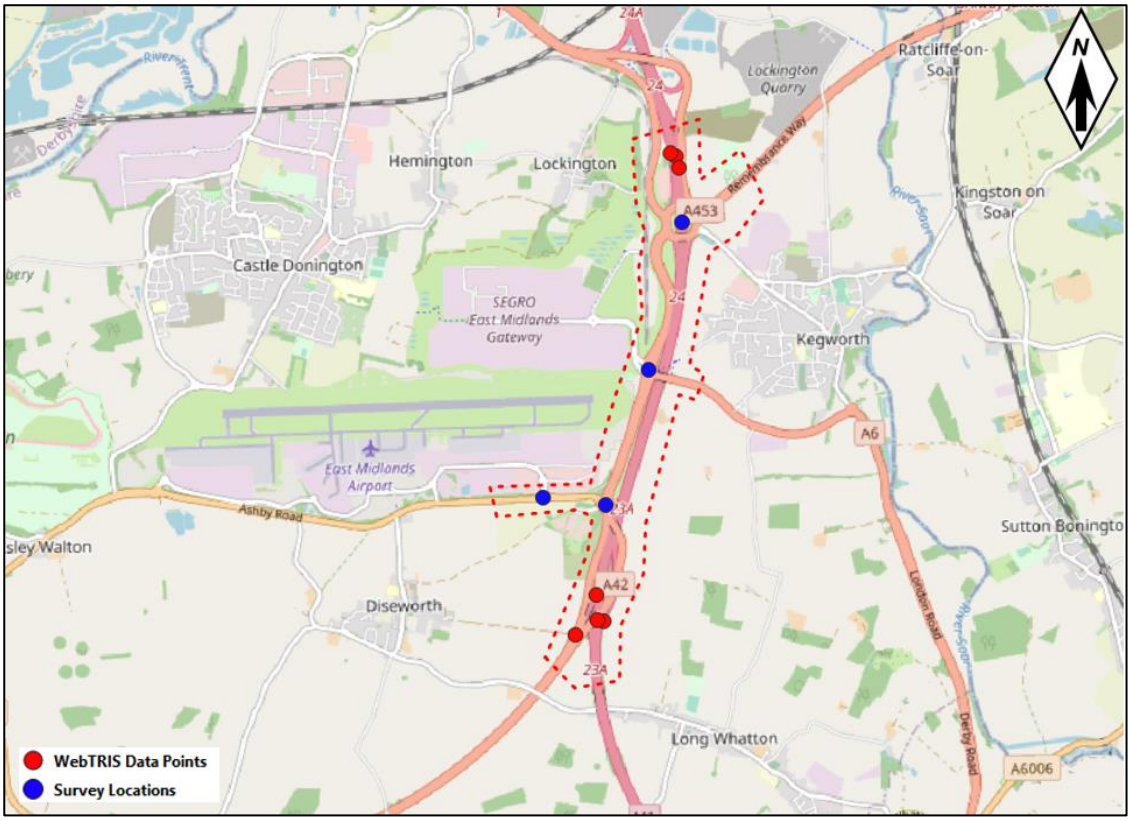
2.6 Following discussions with NH, it was agreed that the model will be cordoned of to the following junctions:

i. M1 J24;
ii. M1 J24a southbound merge onto the M1 and M1 junction 24;
iii. A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory;
iv. M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads);
v. A453/Hunter Road/minor EMG Phase 2 access roundabout;
vi. A453/EMG Phase 2 site access roundabout.

Survey Data

2.7 Manual turning count surveys were undertaken on 3rd November 2023 for all junctions outlined in Paragraph 2.4. with the exception of the A453/Kegworth Bypass junction which was undertaken on 23rd November 2023. **Figure 3** illustrates locations of surveys undertaken and data points that are available on the WebTRIS website.

Figure 3: Survey and WebTRIS Data Locations



2.8 The survey data has been compared to a neutal month which was obtained from the Webtris website for a number of available data points around J24. The **Tables 1** and **2** sets our the GEH comapison between the survey data and the Webtris data.

Table 1: Survey Comparison AM

Appoarch/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1876	1811	1859	1.51	0.39
M1 S Exit	655	689	691	1.31	1.39
A453 Exit Towards EMG1	944	954	1014	0.32	2.24

Table 2: Survey Comparison PM

Appoarch/Exit	Traffic Flows (Veh)			GEH Comparison	
	Survey	2022 (Webtris)	2023 (Webtris)	2022 vs Survey	2023 vs Survey
M1 S Approach	1712	1715	1769	0.07	1.37
M1 S Exit	955	984	1002	0.93	1.50
A453 Exit Towards EMG1	615	666	699	2.02	3.28

2.9 The tables above illistriaght that the survey data is within a GEH 5 when comparing the neutal month from webtris and therefore, the survey data is acceptable.

2.10 The network peak hours were calculated as 0730-0830 and 1700-1800 in the morning and evening period respectively.

2.11 TomTom journey time data was obtained for all neutral days within the month of November 2022. Ths has been utilised for journey time validation purposes.

Model Time Periods

2.12 The modelled time periods include half an of hour warm up and cool down period either side of the peak hours. Subsequently, the model covers the following time periods:

- Weekday morning period from 0700-0900; and
- Weekday evening period from 1630-1830.

Traffic Flow Calculations

2.13 The traffic survey were utlised to generate traffic flow diagrams for each 15 minute interval with the time periods set out above for both light and heavy vehicles respectively. As the EMG gyratory junction was surveyed on a different day, there where significant discrepencies in flows northbound/southbound along the A453 therefore the flows have factored in accordance with flows approaching M1 J24 and Finger Farm Roundabout to ensure consistency for OD matrix estimation

2.14 The flows for the ahead and merge/diverge proportions have been calculated using counts that are avabilble on the WebTRIS website. **Tables 1** and **2** illustrate the calculations undertaken to derive the flows along the motorway as well as the split of traffic at the merges and diverges.

Table 3: Hourly WebTRIS Flows

Time Periods	WebTRIS				Divided By 4 (each 15 interval)			
	Northbound		Southbound		Northbound		Southbound	
	Lights	Heavies	Lights	Heavies	Lights	Heavies	Lights	Heavies
07:00-08:00	2275	605	4471	643	569	151	1118	161
08:00-09:00	2463	442	4069	581	616	111	1017	145
16:00-17:00	4132	502	3740	518	1033	126	935	130
17:00-18:00	4127	416	3863	491	1032	104	966	123
18:00-19:00	3307	290	3113	410	827	73	778	103

Table 4: 15-minute WebTRIS Flows

Time Periods	WebTRIS				% Split				Inputs into VISSIM			
	Northbound		Southbound		Northbound		Southbound					
	A42	M1	A42	M1	A42	M1	A42	M1	B-G	B-H	G-B	H-B
07:00 - 07:15	463	942	446	1028	33%	67%	30%	70%	780	338	381	187
07:15 - 07:30	441	895	477	1024	33%	67%	32%	68%	763	355	381	188
07:30 - 07:45	466	926	455	937	33%	67%	33%	67%	752	365	378	190
07:45 - 08:00	428	794	455	921	35%	65%	33%	67%	748	370	370	199
08:00 - 08:15	374	777	432	790	32%	68%	35%	65%	658	360	416	200
08:15 - 08:30	360	727	388	714	33%	67%	35%	65%	659	358	412	204
08:30 - 08:45	368	688	395	760	35%	65%	34%	66%	669	348	401	215
08:45 - 09:00	358	645	371	719	36%	64%	34%	66%	671	346	396	220
16:30 - 16:45	646	1148	547	902	36%	64%	38%	62%	582	353	661	372
16:45 - 17:00	525	1079	517	945	33%	67%	35%	65%	604	331	695	338
17:00 - 17:15	545	1145	542	944	32%	68%	36%	64%	614	352	699	333
17:15 - 17:30	571	1196	539	974	32%	68%	36%	64%	622	344	698	333
17:30 - 17:45	497	1301	579	887	28%	72%	39%	61%	584	381	747	285
17:45 - 18:00	615	1140	494	829	35%	65%	37%	63%	605	361	670	362
18:00 - 18:15	524	1040	442	795	34%	66%	36%	64%	500	278	550	277
18:15 - 18:30	464	945	417	718	33%	67%	37%	63%	492	286	554	272

HGVs												
Time Periods	WebTRIS				% Split				Inputs into VISSIM			
	Northbound		Southbound		Northbound		Southbound					
	A42	M1	A42	M1	A42	M1	A42	M1	B-G	B-H	G-B	H-B
07:00 - 07:15	75	102	68	96	42%	58%	41%	59%	94	67	87	64
07:15 - 07:30	62	115	66	105	35%	65%	39%	61%	99	62	98	53
07:30 - 07:45	57	119	56	115	32%	68%	33%	67%	108	53	102	49
07:45 - 08:00	65	102	54	112	39%	61%	33%	67%	108	52	92	59
08:00 - 08:15	40	120	58	129	25%	75%	31%	69%	100	45	83	28
08:15 - 08:30	55	108	60	125	34%	66%	32%	68%	98	47	73	37
08:30 - 08:45	58	121	85	123	32%	68%	41%	59%	86	59	75	36
08:45 - 09:00	80	103	71	104	44%	56%	41%	59%	86	59	62	48
16:30 - 16:45	80	107	64	89	43%	57%	42%	58%	75	54	72	54
16:45 - 17:00	55	88	55	81	38%	62%	40%	60%	77	52	77	48
17:00 - 17:15	49	108	54	116	31%	69%	32%	68%	84	39	72	32
17:15 - 17:30	41	92	45	117	31%	69%	28%	72%	89	34	72	32
17:30 - 17:45	47	83	50	89	36%	64%	36%	64%	79	44	66	38
17:45 - 18:00	43	91	57	104	32%	68%	35%	65%	79	43	71	33
18:00 - 18:15	36	59	58	88	38%	62%	40%	60%	62	41	45	27
18:15 - 18:30	49	51	40	77	49%	51%	34%	66%	67	35	37	36

2.15 Each 15-minute interval has been inputed into a skeleton LinSig model of the assessment area for both lights and heavies vehicles to allow LinSig's matrix estimation function to generate OD matrices that can be inputted into VISSIM.

Traffic Signals

2.16 A copy of the MOVA files for M1 J24 and the EMG gyratory were obtained from NH and the model has been updated to utilise the latest files.

2.17 PCMOVA has been utilised to replicate the the signal operation of the M1 J24 and EMG gyratory. The video footage of the junction was compared with the signal operation in VISSIM and it was concluded that this was reflective of on site behaviour.

2.18 MOVA data sets were not available for EMG West Steam 3, East Stream 3 and M1 J24 West Stream 4, therefore, VisVAP program has been ustilised to set up the exit/crossing signal controllers and subsequently link them to the respective MOVA junctions using detectors.

3. Network Development

3.1 A number of changes have been made to the original base model to ensure calibration & validation of the model. These include changes to reduced speed areas, desired speed distributions, priority rules, conflict area and link/flare usage. Details of these have been provided below.

Desired Speed Distribution And Reduced Speed Area

3.2 Initial review of the desired speed distributions utilised in the EMG Phase 1 model had been undertaken and it was noted that the speed distributions for 30, 60 and 70mph were affecting the journey times of vehicles in the model. Therefore, DfT data for the most recent year available (2021) has been obtained and new desired speed distributions have been calculated in coded into VISSIM.

3.3 Reduced speed areas have been retained and checked in accordance streetview, from the initial model apart from the road that connects the A50 to the M1/M1 J24. The TomTom Journey Data has been review and it was noted that the average speed traveling along this link is lower than what is sign posted and therefore amended to reflect this in the model.

3.4 A number of reduced speed area have been coded on to EMG gyratory around the bus stops.

Priority Rules & Conflict Areas

M1 J24

3.5 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the M1 J24 on the M1 northbound Off-Slip entry. The priority rules that have been amended are as follows:

- 495, 496, 497, 498

3.6 A few priority rules have been added on the M1 southbound Off-Slip entry. The priority rules that have been added are as follows:

- 501, 502, 502, 504

EMG Gyratory

3.7 The existing priority rules and conflict areas have largely been unaltered apart from a small number of priority rules at the EMG gyratory. The priority rules that have been amended are as follows:

- 469, 489, 509

3.8 The above alterations have been undertaken to ensure no overrunning of vehicles along the circulatory carriageway.

Public Transport

3.9 A number of bus services were identified within the study area therefore these have been coded into VISSIM in accordance with the respectively timetables and route maps. The following services are included within the model:

- EMG Shuttle Bus
- 9 – EMA – Queens Hospital
- Skylink Derby – Leicester – Derby
- Skylink Derby – Derby – Leicester
- Skylink Nottingham – Nottingham – Loughborough
- Skylink Nottingham – Loughborough – Nottingham
- Skylink Express – Nottingham – EMA
- Skylink Express – Nottingham – EMA

4. Model Changes

4.1 A copy of the VISSIM model was submitted to National Highways on 31 March 2023 subsequently comments were received on 3 May 2023. Following this, a revised copy of the VISSIM models were submitted on 11 July 2023 to ensure network parameters were acceptable prior to rerunning the models for validation. Details of the changes made are provided below.

Comment 1: "Driver behaviour parameter should retain default values unless a reasonable justification for the changes made is provided."

Amendment 1: The driver behaviour parameters have been reverted back to defult

Comment 2: "It is considered that Wiedemann 74 is not suitable for use on motorway, or even dual carriageway links (away from junctions) and that a behaviour type based on Wiedemann 99 should be used."

Amendment 2: Motorway link and dual carriageway links have been amended to Wiedemann 99

Comment 3: "The Behaviour at Amber/Red Signal for Driver Behaviour types should be changed to 'stop' rather than 'go' as current modelled."

Amendment 3: Behaviour at Amber/Red Signal for Driver Behaviour types set to 'stop'

Comment 4: "The various discrepancies between the on-street highway layout and that in the model should be reviewed and corrected."

Amendment 4: Link arrangements have been reviews and amended to reflectexactly whats on the ground.

Comment 5: "The coded vehicle entry speed from Parking Lots and DSDs throughout the network need to be revised to ensure consistent implied vehicles speeds on the same stretch of highway."

Amendment 5: All Parking Lots and DSD have been reviewed and amended where needed to provide more realistic vehicle speeds throughout the network.

Comment 6: "The omission of RDAs in the locations listed in this review should be investigated and appropriate RDAs added to the network."

Amendment 6: RDAs have been review and added/amended throughout the network

Comment 7: "All discrepancies between the controller information and the modelled controller parameters, in particular the inter-green values, should be checked and corrected as appropriate."

Amendment 7: All Signal spec checked and amended where required including intergreens

Comment 8: "There appears to be differences in the call/cancel times between the controller information and those used in the model. These should be checked and corrected as appropriate."

Amendment 8: call/cancel times have been amended

Comment 9: "The dummy connector on the AS453 eastbound entry to Hunter Roundabout should be deleted, mainly to ensure vehicles entering the roundabout correctly give-way."

Amendment 9: call/cancel times have been amended

4.2 Further to the above, some slight modifications were requested for the models, and these changes have been incorporated into the updated VISSIM model.

5. ADDITIONAL MODEL CHANGES

5.1 Initial runs of the forecast modelling indicated some calibration issues, therefore, additional changes have been made to the base model. These amendments are set out below.

VISSIM Version

5.2 VISSIM base model revalidated in VISSIM 24. VISSIM 24 utilises all cores therefore this will reduce computation time of forecast modelling runs.

Links

M1 J24

5.3 M1 NB exit altered (Link 10079) to one lane to reflect existing layout.

5.4 Altered the M1 south approach circulatory from 2 x 2-lane links (Link 17 & Link 194) to 1 x 4-lane link (Link 17). This allows better lane utilisation.

5.5 M1 N approach lane connectors (Link 10016) to A453 Remembrance Way from 1 lane connectors to a 2-lane connector to reflect video observation as well as road markings.

EMG Gyratory

5.6 Altered the EMG approach from 2x2-lane links to 1x4-lane link as the former caused convergence issues in the forecast modelling scenarios.

- Links Amended: 48, 70, 83, 576, 10481, 10482, 10487

Flare lengths

5.7 Flare lenths and allignments have also been reviewed and amended, the northbound approach to Finger Farm Roundabout (Link 136) and the eastbound approach to Hunters Road Roundabout (Link 212).

Signals

5.8 MOVA changes at M1 J24 special conditioning amended from call/cancel to delay/persistence. Signal linkage issues were noted in the forecast modelling scenarios.

A review of the video footage indicated that the call/cancel special conditioning did not reflect the signal operation well, particularly on the southwestern quadrant of the junction. Therefore special conditioning was amended to delay/persistence which reflected the operation better.

5.9 BWB have had discussions with a MOVA engineer who indicated that typically if links are set to simple traffic, these are not utilised on-site. Therefore detectors associated with simple traffic at the EMG gyratory have been removed.

Priority Rules

5.10 Some of the priority were slightly misaligned at the Finger Farm Roundabout causing vehicles to change lanes at the approach to the circulatory. Therefore, these have been repositioned to ensure no unnecessary lane changes.

Route Clousures

5.11 When undertaking the forecast modelling a calibration issue presented itself where traffic coming from the M1 south would come off the M1 travel up the A453 to Junction 24 in the AM. This is not realistic and therefore a route closure has veen added to stop vehicles doing this movement. This route closure will be used in all AM forecast modelling to remain consistent.

Route Costs

5.12 There are 2 routes to access the A50 via Junction 24 for vehicles travelling northbound from the the M1 and the A42, one route is to travel up the M1 and the other route is via the A453. As the model is a dynamic model and when running the models for calibration VISSIM assigns flows to each of these routes depending on where delay is in the model.

5.13 The GEH at Junction 24 for the 2 routes were unbalanced where VISSIM was assigning too many vehicles to use the A453 compared to the M1 and therefore, as a result a cost has been assigned to link number 184 of 75/km. this value provides the best split of traffic between the 2 routes and provides a cohesive GEH at J24. The will remain consistent between all forecast modelling scenarios.

6. MODEL CALIBRATION

Traffic Data

6.1 A skeleton LinSig model of the VISSIM network was built and Lights/Heavies turning movements were input into LinSig at 15-minute intervals. LinSig matrix estimation was subsequently used to generate synthetic OD matrices for input into the VISSIM model.

Convergence

6.2 The base model has been developed using dynamic assignment therefore models have been converged prior to extracting results from the model. TfL traffic modelling guidelines indicates that a model is converged if:

- 95% of all path traffic volumes change by less than 5% for at least four consecutive iterations; and
- 95% of travel times on all paths change by less than 20% for at least four consecutive iterations.

6.3 A summary of the convergence is presented in **Table 5** below.

Table 5: Model Convergence Summary

Sim Run	Traffic Volume		Travel Time on Paths	
	AM	PM	AM	PM
1	96%	99%	98%	98%
2	96%	98%	98%	97%
3	97%	98%	97%	96%
4	96%	97%	96%	95%
5	98%	96%	95%	97%
6	96%	95%	99%	96%
7	99%	98%	98%	98%
8	98%	99%	97%	99%
9	98%	97%	98%	99%
10	99%	98%	97%	99%

6.4 Based on the above, it is considered that both morning and evening peak hour models are converged.

Simulation

6.5 Ten iterations of each of the models were run starting at a random seed of 42 and increasing by 5 each interaction. The network performance parameter 'average delay per vehicle' was obtained for each run. The mean of the 10 runs was found for each option and the average was selected for calibration. The results of this process are presented in **Table 6** below.

Table 6: Network Performance

Seed Value	AM PEAK	PM PEAK
	Average Delay per Vehicle	Average Delay per Vehicle
42	52.774	43.351
47	49.629	42.303
52	50.065	44.313
57	52.982	46.324
62	54.638	42.574
67	53.609	41.910
72	54.941	42.829
77	52.246	41.791
82	50.938	41.322
87	52.155	42.929
Average	52.40	42.96
SD	1.70	1.38
Confidence	1.05	0.86

6.6 The stability of the models was judged using the Chi2 goodness of fit test which seeks to demonstrate that statistically the different model runs pass the goodness of fit null hypothesis that there is no significant difference in average delays between the seed values, thus demonstrating stability.

6.7 **Table 7** below demonstrate that, using the Chi2 distribution, in the morning and evening peak models pass the Chi2 goodness of fit test for respective degrees of freedom. The models therefore exhibit suitable stability/repeatability and are fit for purpose.

Table 7: Summary of Seed Stability Assessment

	MORNING PEAK					EVENING PEAK				
Seed	Observed	Expected	o-e	(o-e)2	(o-e)2/e	Observed	Expected	o-e	(o-e)2	(o-e)2/e
42	52.774	52.398	0.376	0	0.003	43.351	42.965	0.387	0.149	0.003
47	49.629	52.398	-2.769	8	0.146	42.303	42.965	-0.662	0.438	0.010
52	50.065	52.398	-2.333	5	0.104	44.313	42.965	1.349	1.819	0.042
57	52.982	52.398	0.584	0	0.007	46.324	42.965	3.360	11.287	0.263
62	54.638	52.398	2.241	5	0.096	42.574	42.965	-0.391	0.153	0.004
67	53.609	52.398	1.211	1	0.028	41.910	42.965	-1.055	1.113	0.026
72	54.941	52.398	2.544	6	0.124	42.829	42.965	-0.136	0.018	0.000
77	52.246	52.398	-0.152	0	0.000	41.791	42.965	-1.173	1.377	0.032
82	50.938	52.398	-1.459	2	0.041	41.322	42.965	-1.643	2.698	0.063
87	52.155	52.398	-0.243	0	0.001	42.929	42.965	-0.036	0.001	0.000
					0.549					0.443
	chi critical	0.05				chi critical	0.05			
	DF	(n-1)	9	=	16.919	DF	(n-1)	9	=	16.919
					Pass as 0.549 is less than 16.919					**Pass as 0.443 is less than 16.919**

Network Performance

6.8 **Table 8** presents a summary of the average Network Performance information.

Table 8: Network Performance

	AM	PM
Average Delay (s)	52	43
Average Speed (mph)	49	51
Vehicles Arrived	18194	18535
Latent Demand	1	0.6

6.9 **Table 8** illustrates that there is minimal latent demand in the morning peak hour period however a review of the error logs indicate that by the end of the cool down period, all vehicles are able to enter the VISSIM network.

Calibration Methodology

6.10 The Design Manual for Roads and Bridges (DMRB) defines model calibration as "the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives". The model calibration process ensures that model has the ability to exhibit characteristics that accurately compare with observed data.

6.11 The model calibration has been undertaken over a model period of 1.0 hour in the morning peak (07:30 – 08:30) and 1 hour in the evening peak (17:00 – 18:00). These periods of calibration do not include the 'warm up' and 'cool down' period before and after the identified 07:30 – 08:30 and 17:00 – 18:00 morning and evening peak hours.

Traffic Flow Calibration

6.12 The Design Manual for Roads and Bridges (DMRB) defines model calibration as "the process of adjusting the parameters used in the various mathematical relationships within the model to reflect the data as well as is necessary to reflect the model objectives". The model calibration process ensures that the model has the ability to exhibit characteristics that accurately compare with observed data.

6.13 DfT Transport Analysis Guidance (TAG) states that the calibration of traffic data in a model should be based on the Geffrey E.Havers (GEH) statistic, and states that modelled flows must have a GEH value of less than 5 in at least 85% of the cases.

6.14 The turning count calibration for the base model has been based on the average of all simulation runs. **Table** 9 provides a summary of the comparison between the observed and modelled total turning movements within the model.

Table 9: Summary of Traffic Flow Calibration

	Total Turns	Counts GEH<5
Morning Peak	59	92%
Evening Peak	59	93%

3.1 The above table represent a pass rate of over 85% for a GEH of less than 5 in both peak hour periods. The model is therefore considered to be fit for purpose. A copy of the full output is presented in **Appendix 1**.

7. MODEL VALIDATION

Introduction

7.1 TAG Unit M3.1 states that "for journey time calibration, the measure which should be used is: the percentage difference between modelled and observed journey times, subject to an absolute maximum difference". Subsequently, Table 3 of TAG states that the "modelled times along routes should be within 15% of surveyed times or 1 minute, if higher than 15%."

Travel Time Survey

7.2 TomTom journey time survey was obtained at 15 minute intervals for the neutral days within the month of November 2023 during the peak hours.

7.3 **Figure 4** and **5** provides routes utilised for journey time validation.

Figure 4: Journey Time Routes (1 - 10)

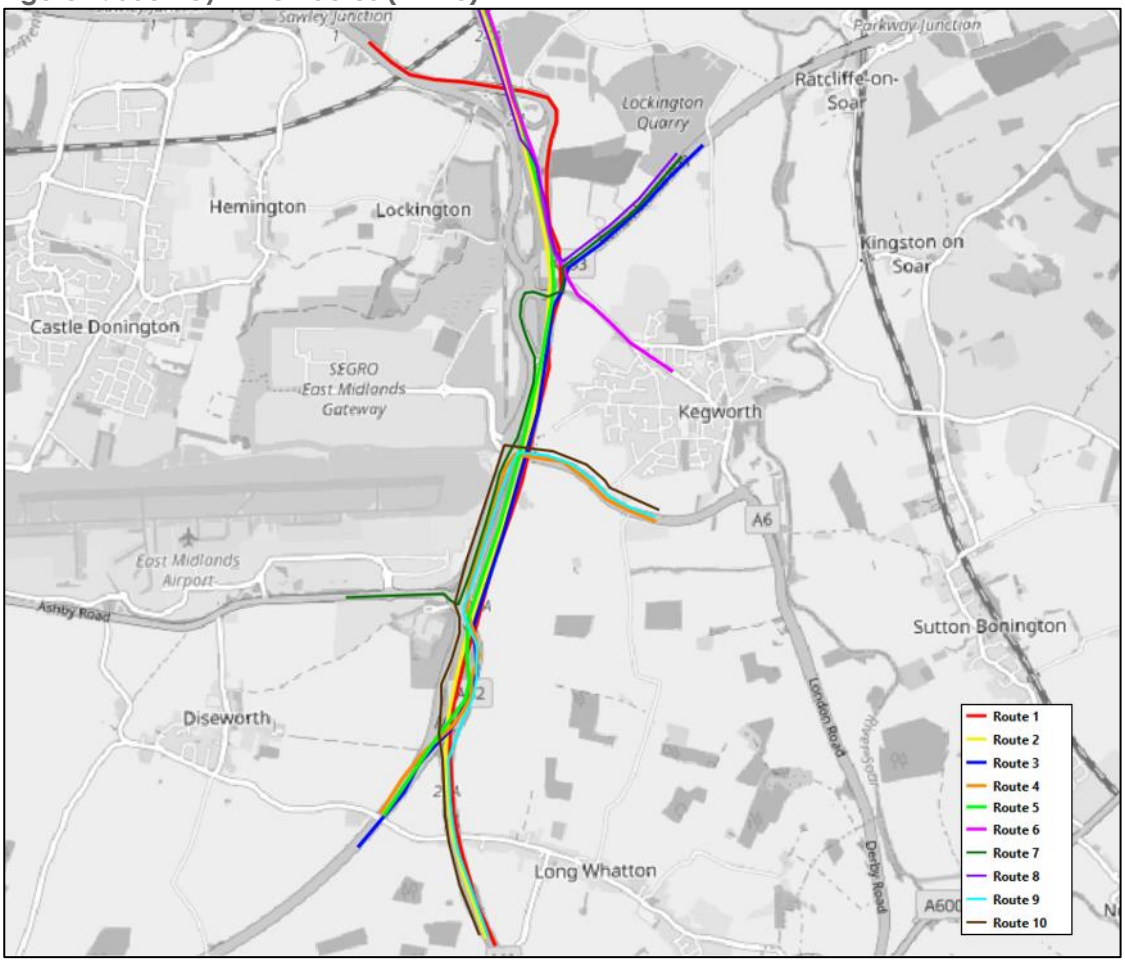
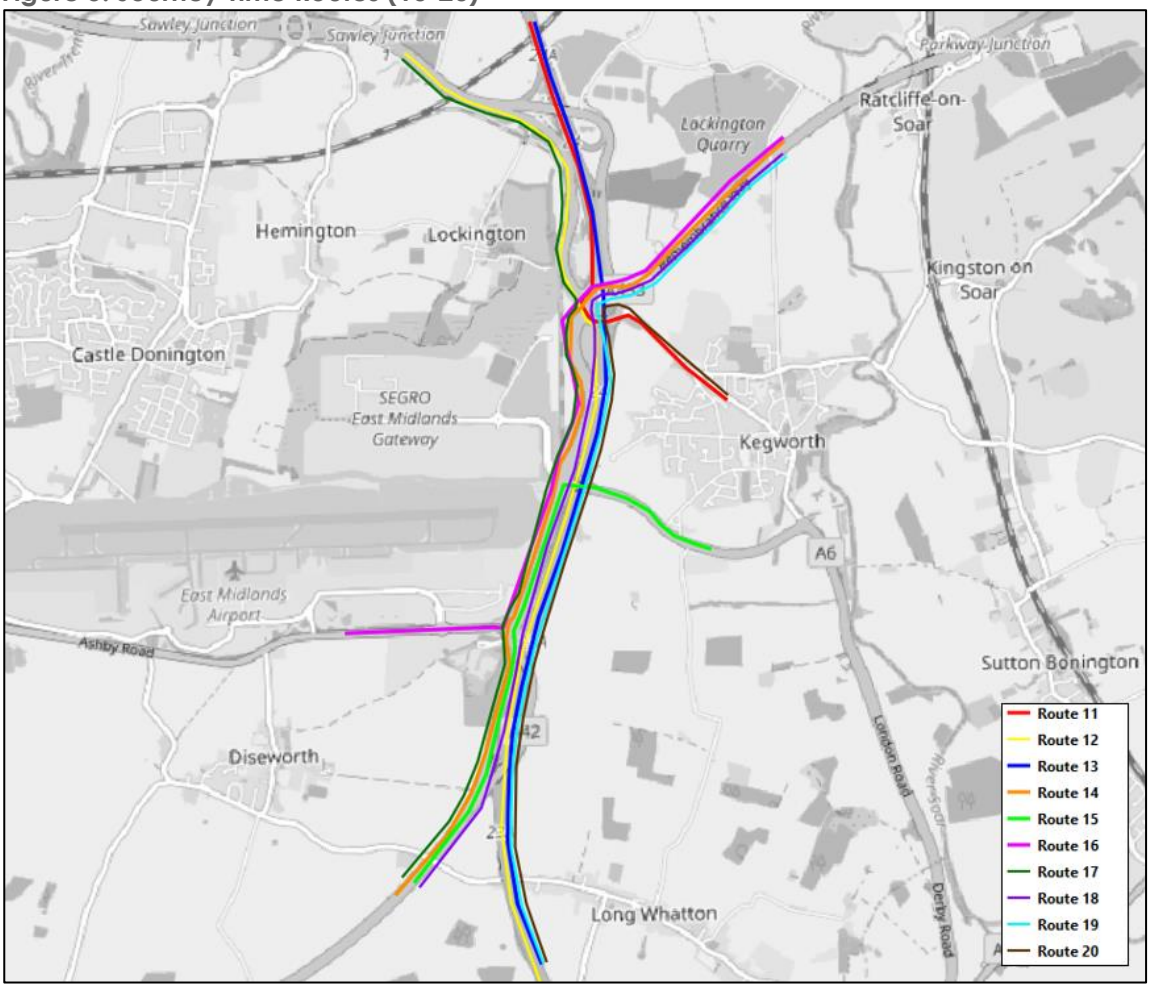


Figure 5: Journey Time Routes (10-20)



7.4 Details of the origin and destination of the routes identified above is provided below:

- Route 1 – A50 to M1 South
- Route 2 – M1 North to M1 South
- Route 3 – A453 Rememberance Way to A42
- Route 4 – Kegworth Bypass to A42
- Route 5 - M1 North to A42
- Route 6 – M1 North to Derby Road
- Route 7 – A453 Rememberance Way to A453 EMA
- Route 8 – M1 North to A453 Rememberance Way
- Route 9 – Kegworth Bypass to M1 South
- Route 10 - M1 South to Kegworth Bypass
- Route 11 – Derby Road to M1 North
- Route 12 – M1 South to A50
- Route 13 – M1 South to M1 North
- Route 14 – A42 to A453 Rememberance Way via A453

- Route 15 - A42 to Kegworth Bypass
- Route 16 – A453 EMA to A453 Rememberance Way
- Route 17 – A42 to A50 via A453
- Route 18 – A42 to A453 Rememberance Way via M1
- Route 19 – M1 South to A453 Rememberance Way via M1
- Route 20 - M1 South to Derby Road via M1

Validation Results

7.5 Model validation has been undertaken using 10 simulation seed runs as illustrated in **Table 7**. The average journey time for each full route has been compared with the surveyed journey times and the resultant output is presented in **Table 10** below.

Table 10: Travel Time Validation

Route	AM			PM		
	Observed	Modelled	% Difference	Observed	Modelled	% Difference
1	489	349	-28.6%	413	321	-22.4%
2	358	333	-6.9%	352	315	-10.4%
3	318	310	-2.5%	353	305	-13.6%
4	271	308	13.5%	269	288	7.2%
5	377	324	-14.0%	359	312	-13.0%
6	311	285	-8.5%	299	260	-12.9%
7	397	389	-1.9%	445	367	-17.4%
8	271	278	2.7%	255	258	1.4%
9	293	305	4.2%	294	291	-1.1%
10	318	338	6.4%	338	337	-0.4%
11	325	343	5.7%	394	339	-13.9%
12	374	348	-7.0%	408	361	-11.5%
13	331	327	-1.3%	397	356	-10.2%
14	393	424	7.9%	427	392	-8.2%
15	293	324	10.4%	314	297	-5.5%
16	389	400	2.8%	443	412	-6.9%
17	343	353	2.8%	414	441	6.5%
18	372	360	-3.2%	370	339	-8.4%
19	393	375	-4.7%	394	376	-4.5%
20	433	373	-13.8%	438	377	-13.9%

Table 11: Travel Time Validation Summary

	<15%	
	AM	PM
Fail	1	2
Pass	19	18
Total	20	20
%	95%	90%

7.6 **Table 8** illustrates that the over 85% of the journey times validate within 15% therefore it is considered the model is fit for purpose for future year assessment.

8. SUMMARY & CONCLUSIONS

8.1 BWB Consulting Ltd (BWB) has been appointed by SEGRO (the Applicant) to produce a microsimulation traffic model of the M1 Junction 24, in support of an outline planning application for the Phase 2 Expansion of the East Midlands Gateway (EMG) site.

8.2 The gross floor area (GFA) of the proposed scheme is approximately 3.23 million sqft (300,000sqm) comprising of 80% B8 use and 20% for B2 use, all with ancillary office use.

8.3 Traffic surveys were undertaken in November 2022 and subsequently a base VISSIM model of the study area has been developed by BWB.

8.4 The model was calibrated using observed and modelled turning movements during the peak hours at a 15-minute interval. These were assessed against DfT modelling guidelines and it was concluded that the base model satisfies both criterias.

8.5 Modelled journey times indicate that over 85% of these validate within 15% of observed data therefore it is considered the model is 'fit for purpose'.

APPENDICES

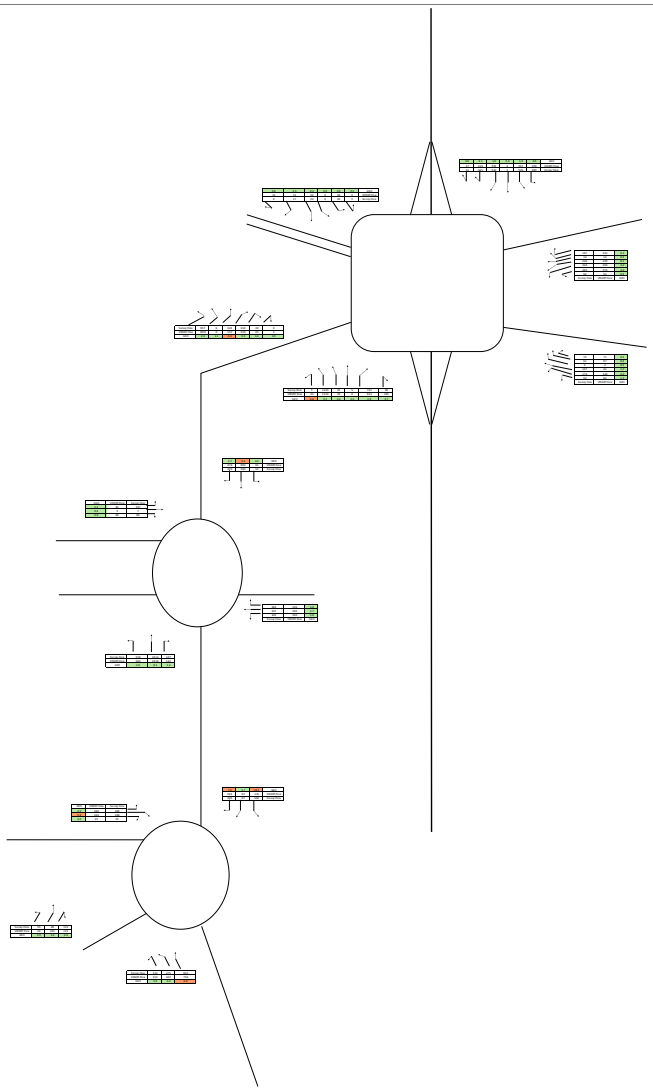
APPENDIX 1: TURNING COUNT CALIBRATION

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	560	176	384	218%	20.02	Fail
Junction 1	A453 (N)	Donington Services Access	67	82	-15	-18%	1.74	Pass
Junction 1	A453 (N)	A453 (W)	420	591	-171	-29%	7.61	Fail
Junction 1	M1 J23A Access	Donington Services Access	134	123	11	9%	0.97	Pass
Junction 1	M1 J23A Access	A453 (W)	475	403	72	18%	3.44	Pass
Junction 1	M1 J23A Access	A453 (N)	952	759	193	25%	6.60	Fail
Junction 1	Donington Services Access	A453 (W)	55	32	23	72%	3.49	Pass
Junction 1	Donington Services Access	A453 (N)	89	103	-14	-14%	1.43	Pass
Junction 1	Donington Services Access	M1 J23A Access	112	115	-3	-3%	0.28	Pass
Junction 1	A453 (W)	A453 (N)	408	498	-90	-18%	4.23	Pass
Junction 1	A453 (W)	M1 J23A Access	249	164	85	52%	5.92	Fail
Junction 1	A453 (W)	Donington Services Access	23	10	13	130%	3.20	Pass
Junction 2	M1 J24 (N)	A453 (N)	900	979	-79	-8%	2.58	Pass
Junction 2	M1 J24 (N)	To Derby Road	526	557	-31	-6%	1.33	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (N)	A453 (S)	542	520	22	4%	0.95	Pass
Junction 2	M1 J24 (N)	A50	321	319	2	1%	0.11	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	14	17	-3	-18%	0.76	Pass
Junction 2	A453 (N)	Derby Road	60	54	6	11%	0.79	Pass
Junction 2	A453 (N)	M1 J24 (S)	483	555	-72	-13%	3.16	Pass
Junction 2	A453 (N)	A453 (S)	424	356	68	19%	3.44	Pass
Junction 2	A453 (N)	A50	246	245	1	0%	0.06	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	14	14	0	0%	0.00	Pass
Junction 2	A453 (N)	M1 J24 (N)	187	191	-4	-2%	0.29	Pass
Junction 2	Derby Road	M1 J24 (S)	54	64	-10	-16%	1.30	Pass
Junction 2	Derby Road	A453 (S)	174	146	28	19%	2.21	Pass
Junction 2	Derby Road	A50	107	94	13	14%	1.30	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	61	67	-6	-9%	0.75	Pass
Junction 2	Derby Road	A453 (N)	75	71	4	6%	0.47	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	34	-29	-85%	6.57	Fail
Junction 2	M1 J24 (S)	A50	1150	1132	18	2%	0.53	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	21	23	-2	-9%	0.43	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	5	0	5	0%	3.16	Pass
Junction 2	M1 J24 (S)	A453 (N)	731	811	-80	-10%	2.88	Pass
Junction 2	M1 J24 (S)	Derby Road	98	105	-7	-7%	0.69	Pass
Junction 2	A453 (S)	A50	957	1025	-68	-7%	2.16	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	6	9	-3	-33%	1.10	Pass
Junction 2	A453 (S)	M1 J24 (N)	240	152	88	58%	6.29	Fail
Junction 2	A453 (S)	A453 (N)	232	228	4	2%	0.26	Pass
Junction 2	A453 (S)	Derby Road	30	23	7	30%	1.36	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	5	5	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	63	59	4	7%	0.51	Pass
Junction 2	Hilton Hotel Lane	Derby Road	9	9	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	23	22	1	5%	0.21	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	17	15	2	13%	0.50	Pass
Junction 2	Hilton Hotel Lane	A50	9	12	-3	-25%	0.93	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	54	91	-37	-41%	4.35	Pass
Junction 3	A453 (N)	A453 (S)	393	603	-210	-35%	9.41	Fail
Junction 3	A453 (N)	Wilders Way	323	374	-51	-14%	2.73	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	142	162	-20	-12%	1.62	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	415	382	33	9%	1.65	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	369	339	30	9%	1.59	Pass
Junction 3	A453 (S)	Wilders Way	219	264	-45	-17%	2.90	Pass
Junction 3	A453 (S)	A453 (N)	1014	1016	-2	0%	0.06	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	127	112	15	13%	1.37	Pass
Junction 3	Wilders Way	A453 (N)	107	86	21	24%	2.14	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	7	5	2	40%	0.82	Pass
Junction 3	Wilders Way	A453 (S)	80	88	-8	-9%	0.87	Pass

	<5
Fail	7
Pass	52
Total	59
%	88%

AM Peak			Survey Flow	VISSIM Flow	Difference (M - C)	% Difference	GEH	GEH <5
Junction	From	To						
Junction 1	A453 (N)	M1 J23A Access	367	209	158	76%	9.31	Fail
Junction 1	A453 (N)	Donington Services Access	88	73	15	21%	1.67	Pass
Junction 1	A453 (N)	A453 (W)	178	187	-9	-5%	0.67	Pass
Junction 1	M1 J23A Access	Donington Services Access	138	137	1	1%	0.09	Pass
Junction 1	M1 J23A Access	A453 (W)	420	406	14	3%	0.69	Pass
Junction 1	M1 J23A Access	A453 (N)	771	767	4	1%	0.14	Pass
Junction 1	Donington Services Access	A453 (W)	53	60	-7	-12%	0.93	Pass
Junction 1	Donington Services Access	A453 (N)	88	95	-7	-7%	0.73	Pass
Junction 1	Donington Services Access	M1 J23A Access	124	146	-22	-15%	1.89	Pass
Junction 1	A453 (W)	A453 (N)	587	498	89	18%	3.82	Pass
Junction 1	A453 (W)	M1 J23A Access	253	316	-63	-20%	3.74	Pass
Junction 1	A453 (W)	Donington Services Access	51	59	-8	-14%	1.08	Pass
Junction 2	M1 J24 (N)	A453 (N)	907	949	-42	-4%	1.38	Pass
Junction 2	M1 J24 (N)	To Derby Road	545	528	17	3%	0.73	Pass
Junction 2	M1 J24 (N)	To M1 J24 (S)	4	0	4	0%	2.83	Pass
Junction 2	M1 J24 (N)	A453 (S)	182	141	41	29%	3.23	Pass
Junction 2	M1 J24 (N)	A50	240	221	19	9%	1.25	Pass
Junction 2	M1 J24 (N)	Hilton Hotel Lane	10	9	1	11%	0.32	Pass
Junction 2	A453 (N)	Derby Road	74	72	2	3%	0.23	Pass
Junction 2	A453 (N)	M1 J24 (S)	813	865	-52	-6%	1.80	Pass
Junction 2	A453 (N)	A453 (S)	294	356	-62	-17%	3.44	Pass
Junction 2	A453 (N)	A50	405	376	29	8%	1.47	Pass
Junction 2	A453 (N)	Hilton Hotel Lane	11	9	2	22%	0.63	Pass
Junction 2	A453 (N)	M1 J24 (N)	263	269	-6	-2%	0.37	Pass
Junction 2	Derby Road	M1 J24 (S)	51	59	-8	-14%	1.08	Pass
Junction 2	Derby Road	A453 (S)	88	87	1	1%	0.11	Pass
Junction 2	Derby Road	A50	135	133	2	2%	0.17	Pass
Junction 2	Derby Road	Hilton Hotel Lane	2	2	0	0%	0.00	Pass
Junction 2	Derby Road	M1 J24 (N)	87	89	-2	-2%	0.21	Pass
Junction 2	Derby Road	A453 (N)	57	61	-4	-7%	0.52	Pass
Junction 2	M1 J24 (S)	A453 (S)	5	1	4	400%	2.31	Pass
Junction 2	M1 J24 (S)	A50	1089	980	109	11%	3.39	Pass
Junction 2	M1 J24 (S)	Hilton Hotel Lane	14	15	-1	-7%	0.26	Pass
Junction 2	M1 J24 (S)	M1 J24 (N)	0	0	0	0%	0.00	Pass
Junction 2	M1 J24 (S)	A453 (N)	528	686	-158	-23%	6.41	Fail
Junction 2	M1 J24 (S)	Derby Road	76	95	-19	-20%	2.05	Pass
Junction 2	A453 (S)	A50	999	875	124	14%	4.05	Pass
Junction 2	A453 (S)	Hilton Hotel Lane	5	5	0	0%	0.00	Pass
Junction 2	A453 (S)	M1 J24 (N)	323	347	-24	-7%	1.31	Pass
Junction 2	A453 (S)	A453 (N)	256	269	-13	-5%	0.80	Pass
Junction 2	A453 (S)	Derby Road	41	33	8	24%	1.32	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (N)	15	15	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	A453 (N)	20	21	-1	-5%	0.22	Pass
Junction 2	Hilton Hotel Lane	Derby Road	10	10	0	0%	0.00	Pass
Junction 2	Hilton Hotel Lane	M1 J24 (S)	8	7	1	14%	0.37	Pass
Junction 2	Hilton Hotel Lane	A453 (S)	4	3	1	33%	0.53	Pass
Junction 2	Hilton Hotel Lane	A50	11	10	1	10%	0.31	Pass
Junction 3	A453 (N)	A6 Kegworth Bypass	77	94	-17	-18%	1.84	Pass
Junction 3	A453 (N)	A453 (S)	305	194	111	57%	7.03	Fail
Junction 3	A453 (N)	Wilders Way	243	223	20	9%	1.31	Pass
Junction 3	A6 Kegworth Bypass	A453 (S)	132	139	-7	-5%	0.60	Pass
Junction 3	A6 Kegworth Bypass	Wilders Way	402	388	14	4%	0.70	Pass
Junction 3	A6 Kegworth Bypass	A453 (N)	389	388	1	0%	0.05	Pass
Junction 3	A453 (S)	Wilders Way	90	136	-46	-34%	4.33	Pass
Junction 3	A453 (S)	A453 (N)	1026	906	120	13%	3.86	Pass
Junction 3	A453 (S)	A6 Kegworth Bypass	187	328	-141	-43%	8.79	Fail
Junction 3	Wilders Way	A453 (N)	221	214	7	3%	0.47	Pass
Junction 3	Wilders Way	A6 Kegworth Bypass	19	17	2	12%	0.47	Pass
Junction 3	Wilders Way	A453 (S)	140	138	2	1%	0.17	Pass

	<5
Fail	2
Pass	45
Total	47
%	96%



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Project

East Midlands Gateway Phase 2

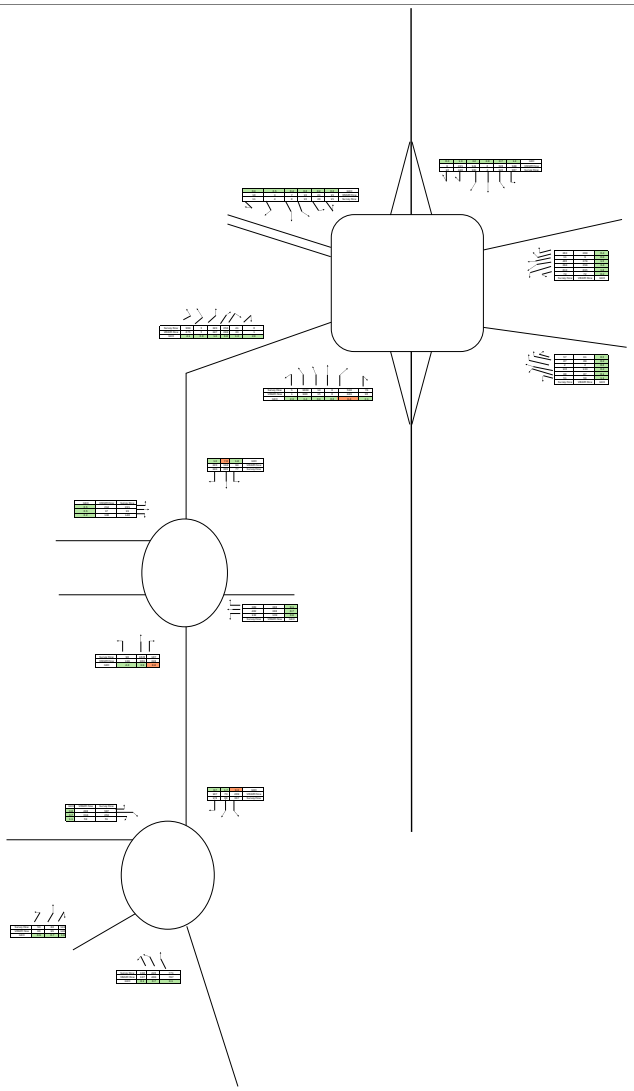
Drawing Title

GEM Comparison AM

Drawn	CC	**Approved**	VD
Checked	CC	**Date**	03.03.25

Project Number

220500



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Drawing Title

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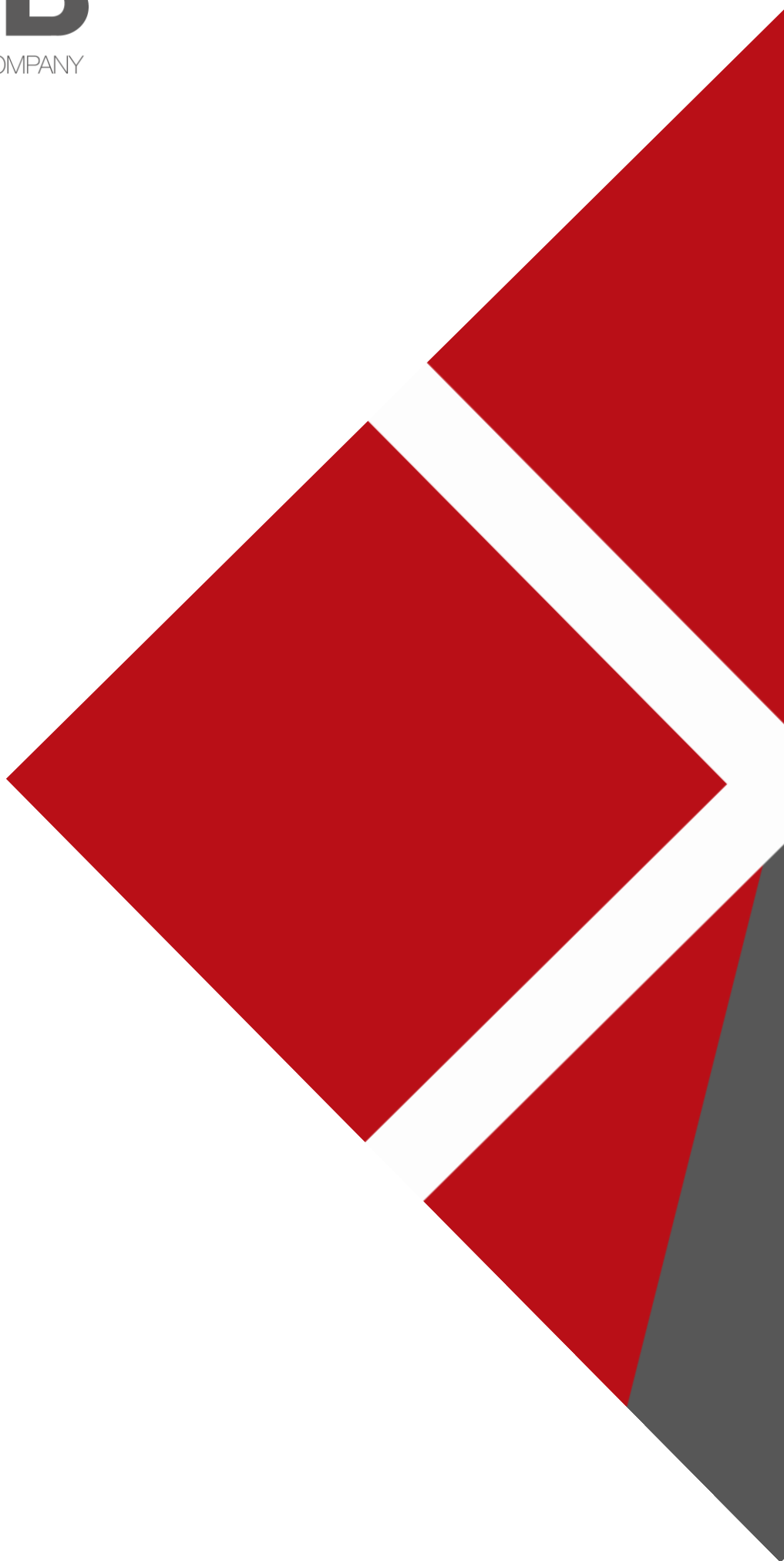
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Checked	CC	**Date**	03.03.25

Project Number

220500

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APPENDIX 5: Base Model Validation Report (document reference EMG2-BWB-GEN-XX-RP-TR-0007_S2-P4)

PROJECT NAME	East Midlands Gateway Phase 2		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0007	BWB REF	220500
AUTHOR	Charlie Cresswell	STATUS	S2
CHECKED	Vibeeshan Devaharan	REVISION	P4
APPROVED	Matt Corner	DATE	31/05/2024

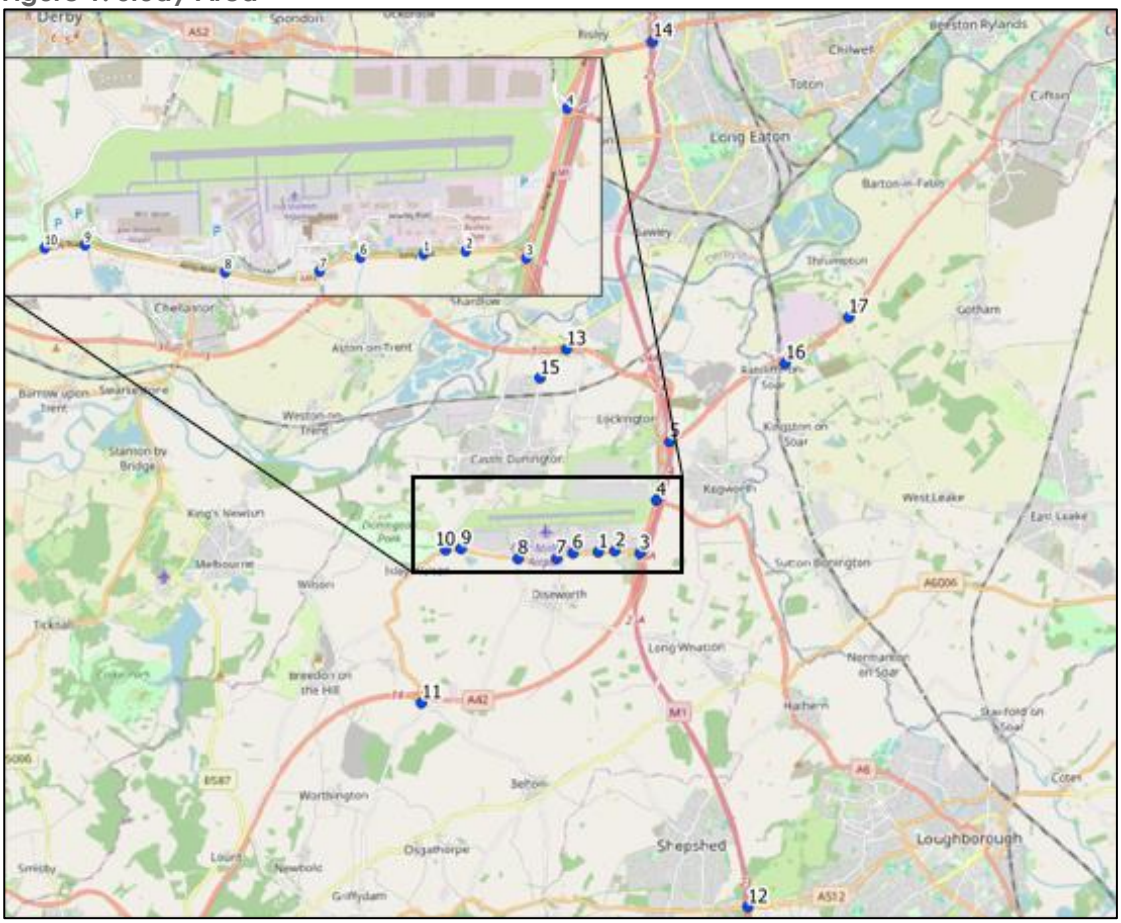
1. INTRODUCTION

1.1 BWB Consulting Ltd has been in pre-application discussions with the Transport Working Group (TWG) on a proposed Phase 2 Expansion of the East Midlands Gateway site located to the south of the A453 and East Midlands Airport in Leicestershire. BWB has proposed that the following 17 junctions, as presented in **Figure 1**, would be modelled as part of the Transport Assessment.

- Junction 1: A453/Site Access Roundabout (Leicestershire)
- Junction 2: A453/Hunter Road Roundabout (Leicestershire)
- Junction 3: Finger Farm Roundabout (National Highways)
- Junction 4: A453/EMGP1 Signal Gyratory (National Highways)
- Junction 5: M1 Junction 24 (National Highways)
- Junction 6: A453/East Midlands Airport Signal Junction (Leicestershire)
- Junction 7: A453/Grimes Gate Priority Junction (Leicestershire)
- Junction 8: A453/The Green Priority Junction (Leicestershire)
- Junction 9: A453/East Midlands Airport Roundabout (Leicestershire)
- Junction 10: A453/Walton Hill Signal Junction (Leicestershire)
- Junction 11: A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout (National Highways)
- Junction 12: M1 Junction 23 (National Highways)
- Junction 13: A50 Junction 1 (National Highways)
- Junction 14: M1 Junction 25 (National Highways)
- Junction 15: Station Road/Broad Rushes Roundabout (Leicestershire)
- Junction 16: A453/Kegworth Road roundabout (Nottinghamshire)
- Junction 17: A453/Barton Lane/West Leake Lane dumbbell roundabouts (Nottinghamshire)

1.2 This Technical Note summarises the validation process undertaken of the base junction models (Junctions 10 and LinSig software) to demonstrate they are suitable ahead of testing the future forecast traffic flows. It should be noted that Junctions 1, 2, 3, 4 and 5 are being modelled in VISSIM, of which the base model has already been agreed (report ref: EMG2-BWB-GEN-XX-RP-TR-0006_VISSIM_LMVR) and so these junctions are not covered in this report.

Figure 1. Study Area



1.3 A copy of the base model was initially submitted to NH on 26/01/2024 subsequently comments were received which have also been addressed in this technical note.

2. TRAFFIC SURVEYS

2.1 Manual classified turning counts were undertaken in November 2022 and May 2023 at the above 17 junctions. The surveys were undertaken between 0700 to 1000 hours and 1600 to 1900 hours and included a recording of queue lengths at 5-minute intervals. Video footage has also been supplied for the majority of junctions for the purposes of calculating green times and saturation flows for validating the base LinSig models. The surveys were undertaken on the following dates:

<u>November 2023 Surveys</u>

- Junction 2: A453/Hunter Road roundabout
- Junction 3: Finger Farm roundabout
- Junction 4: EMGP1 gyratory
- Junction 5: M1 Junction 24
- Junction 6: A453/Grimes Gate priority junction
- Junction 7: A453/The Green priority junction

- Junction 8: A453/East Midlands Airport signal junction
- Junction 9: A453/East Midlands Airport roundabout
- Junction 10: A453/Walton Hill signal junction
- Junction 12: M1 Junction 23

May 2023 Surveys

- Junction 11: A42 Junction 14 on-slip/A453/Top Brand/Gelscoe Lane roundabout
- Junction 13: A50 Junction 1
- Junction 14: M1 Junction 25
- Junction 15: Station Road/Broad Rushes roundabout (Castle Donnington)
- Junction 16: A453/Kegworth Road roundabout
- Junction 17: A453/Barton Lane/West Leake Lane dumbbell roundabouts

3. PRIORITY JUNCTIONS

Introduction

3.1 This following section summarises the base modelling results and validation of the priority-controlled junctions which have been built using TRL's Junctions 10 software, and are as follows:

- Junction 7 – A453/Grimes Gate priority junction
- Junction 8 - A453/The Green priority junction
- Junction 9 - A453/East Midlands Airport roundabout
- Junction 11 - A42 Junction 14 on-slip/Top Brand/Gelscoe Lane roundabout
- Junction 15 – Station Road/Broad Rushes roundabout
- Junction 16: A453/Kegworth Road roundabout
- Junction 17: A453/Barton Lane/West Leake Lane dumbbell roundabouts

3.2 Whilst there are no specific guidelines/thresholds for validating priority junctions, for the purposes of this assessment, the intention was to validate the models so that average observed versus modelled queues are within 2 passenger car units (PCUs).

Junction 7 - A453/Grimes Gate Priority Junction

3.3 The junction model has been created using the typical junction measurements that Junctions 10 software requires. The 2023 observed traffic flow movements are summarised in **Table 1.**

Table 1. Junction 7 2023 Observed Traffic Flows (PCUs)

	AM Peak			
	A453 (E)	Grimes Gate	A453 (W)	Total
A453 (E)	0	20	296	316
Grimes Gate	64	0	6	70
A453 (W)	547	7	0	554
Total	611	27	302	940
	PM Peak			
	A453 (E)	Grimes Gate	A453 (W)	Total
A453 (E)	0	74	408	482
Grimes Gate	28	0	9	37
A453 (W)	318	12	0	330
Total	346	86	417	849

3.4 In order to validate the model, the 2023 observed queues have been compared against the modelled. These are presented in **Table 2** below.

Table 2. Junction 7 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
Grimes Gate (Left Turn)	0.2	0.0	-0.2	0.4	0.0	-0.4
Grimes Gate (Right Turn)	2.1	0.2	-1.9	1.2	0.1	-1.1

3.5 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.6 The full model extracts and junction geometries are provided within **Appendix 1**.

Junction 8 - A453/The Green Junction

3.7 The junction model has been created using the typical junction measurements that Junctions 10 software. The observed traffic flow movements are summarised below in **Table 3**.

Table 3. Junction 8 2023 Observed Flows (PCUs)

	AM Peak			
	A453 (E)	The Green	A453 (W)	Total
A453 (E)	0	12	290	302
The Green	18	0	85	103
A453 (W)	536	73	0	609
Total	554	85	375	1014
	PM Peak			
	A453 (E)	The Green	A453 (W)	Total
A453 (E)	0	12	405	417
The Green	14	0	58	72
A453 (W)	316	104	0	420
Total	330	116	463	909

3.8 The 2023 observed queues have been compared to the modelled queues. The results are presented in **Table 4** below.

Table 4. Junction 8 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
The Green	2.1	0.2	-1.9	2.2	0.2	-2.0

3.9 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.10 The full model extracts and junction geometries are provided within **Appendix 2**.

Junction 9 - A453/EMA Roundabout

3.11 The junction model has been created using the typical junction measurements that Junctions 10 software requires.

Model Calibration

3.12 As both A453 arm of the roundabout are 2 lane entries and exits there is the potential for unequal lane usage. As result of this the junction has been modelled using Junctions 10 lane simulation mode which allows modelling for unequal lane usage.

3.13 The video of the junction has been reviewed to determine the level of traffic which use each lane. The videos showed that approximately 20% of traffic used the second lane. As a result in the Junctions 10 model the Traffic Considering Secondary Lanes Parameter has been set to 20%.

3.14 The observed traffic flow movements are summarised below in **Table 5**.

Table 5. Junction 9 2023 Observed Flows (PCUs)

	AM Peak			
	EMA Access	A453 (E)	A453 (W)	Total
EMA Access	0	64	60	124
A453 (E)	219	0	156	375
A453 (W)	240	545	0	785
Total	459	609	216	1284
	PM Peak			
	EMA Access	A453 (E)	A453 (W)	Total
EMA Access	0	162	221	383
A453 (E)	93	0	364	457
A453 (W)	134	258	0	392
Total	227	420	585	1232

3.15 The 2023 observed queues have been compared to the modelled queues and a summary of this is presented in **Table 6** below.

Table 6. Junction 9 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
EMA Access	1.2	0.2	-1	1.3	0.4	-0.9
A453 (E)	0.6	1.0	0.4	1.3	0.9	-0.4
A453 (W)	1.7	2.1	0.4	1	0.8	-0.2

3.16 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.17 The full model extracts and junction geometries are provided within **Appendix 3**.

Junction 11 - A453/Gelscoe Lane/Top Brand roundabout (near A42)

3.18 The A453/Gelscoe Lane/Top Brand roundabout includes an exit only arm; therefore in the Junctions 10 software the exit only option has been selected which registers this and prohibits flows being inputted in the O-D matrices. All other arms have been built using the standard measurements in Junctions 10.

Model Calibration

3.19 The junction has been modelled using Junctions 10 lane simulation mode which allows modelling for unequal lane usage. The lanes within the model have been coded to replicate movement at a typical 2 lane entry roundabout i.e. lane 1 for left and ahead and lane 2 for right and U-turns. As there are no arrow markings on the ground the video surveys were review and illustrated that vehicles use the roundabout as set out earlier.

3.20 The observed traffic flow movements are summarised within **Table 7** below.

Table 7. Junction 11 2023 Observed Flows (PCUs)

	AM Peak			
	A – Barton Lane	B – Gelscoe Lane	C – Top Brand	D – A42 Entry Slip Road
A – Barton Lane	0	43	126	77
B – Gelscoe Lane	19	0	12	24
C – Top Brand	169	23	0	40
D – A42 Entry Slip Road	0	0	0	0
	PM Peak			
	A – Barton Lane	B – Gelscoe Lane	C – Top Brand	D – A42 Entry Slip Road
A – Barton Lane	0	93	273	306
B – Gelscoe Lane	23	0	13	19
C – Top Brand	56	7	0	2
D – A42 Entry Slip Road	0	0	0	0

3.21 A comparison of the observed and modelled queues are presented in **Table 8** below.

Table 8. Junction 11 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
A453 (N)	0.0	0.4	0.4	0.0	1.5	1.5
Gelscoe Lane	0.1	0.1	0.0	0.0	0.1	0.1
Top Brand	0.1	0.5	0.4	0.1	0.1	0.0

3.22 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.23 The full model extracts and junction geometries are provided within **Appendix 4**.

Junction 15 - Station Road/Broad Rushes roundabout (Castle Donington)

3.24 The junction model has been created using the typical junction measurements that Junction 10 software requires.

Model Calibration

3.25 The junction has been modelled using Junctions 10 lane simulation mode which allows modelling for unequal lane usage. The lanes within the model have been coded to replicate what the road markings show at the junction.

3.26 The observed traffic flow movements are summarised below in **Table 9**.

Table 9. Junction 15 2023 Observed Flows (PCUs)

	AM Peak		
	Station Road (N)	Station Road (S)	Broad Rushes
Station Road (N)	0	626	500
Station Road (S)	349	0	22
Broad Rushes	414	12	0
	PM Peak		
	Station Road (N)	Broad Rushes	Station Road (S)
Station Road (N)	0	551	440
Station Road (S)	596	0	12
Broad Rushes	490	21	0

3.27 A comparison of the observed and modelled queues is presented in **Table 10** below.

Table 10. Junction 15 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
Station Road (N)	1.4	2.9	1.5	0.8	2.5	1.7
Broad Rushes	0.1	0.7	0.6	2.6	2.8	0.2
Station Road (S)	1.0	1.2	0.2	2.4	3.1	0.7

3.28 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.29 The full model extracts and geometries are provided within **Appendix 5**.

Junction 16 – A453/Kegworth Road Roundabout

3.30 The junction model has been created using the typical junction measurements that Junctions 10 software requires The observed traffic flow movements are summarised below in **Table 11**.

Table 11. Junction 16 2023 Observed Flows (PCUs)

	AM Peak			
	A453 Exit Slip Road	Kegworth Road (E)	Kegworth Road (S)	A453 Entry Slip Road
A453 Exit Slip Road	0	39	27	0
Kegworth Road (E)	0	0	20	28
Kegworth Road (S)	0	53	0	14
A453 Entry Slip Road	0	0	0	0
	PM Peak			

	A453 Exit Slip Road	Kegworth Road (E)	Kegworth Road (S)	A453 Entry Slip Road
A453 Exit Slip Road	0	18	36	0
Kegworth Road (E)	0	0	23	74
Kegworth Road (S)	0	35	0	6
A453 Entry Slip Road	0	0	0	0

3.31 A comparison of the observed and modelled queues is presented in **Table 12** below.

Table 12. Junction 16 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
A453 Exit Slip	0.2	0	-0.2	0.2	0	-0.2
Kegworth Road (E)	0	0	0.0	0	0.1	0.1
Kegworth Road (S)	0	0.1	0.1	0	0	0.0

3.32 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.33 The full model extracts and geometries are provided within **Appendix 6**.

Junction 17 – A453/West Leake Lane Dumbbell Roundabout

3.34 The junction model has been created using the typical junction measurements that Junctions 10 software requires. The observed traffic flow movements are summarised below in **Table 13**.

Table 13. Junction 17 2023 Observed Flows (PCUs)

	AM Peak			
	Junction 1			
	J1 - Barton Lane	J1 - A453 (NE)	J1 - West Leake Lane	J1 - A453 (SW)
J1 - Barton Lane	0	0	273	51
J1 - A453 (NE)	5	0	48	0
J1 - West Leake Lane	80	0	0	271
J1 - A453 (SW)	0	0	0	0
	Junction 2			
	J2 - Barton Lane	J2 - A453 (NE)	J2 - Barton Lane (S)	J2 - A453 (SW)
J2 - Barton Lane	0	0	66	0
J2 - A453 (NE)	0	0	0	0

J2 - Barton Lane (S)	12	73	0	0
J2 - A453 (SW)	26	0	258	0
	PM Peak			
	Junction 1			
	J1 - Barton Lane	J1 - A453 (NE)	J1 - West Leake Lane	J1 - A453 (SW)
J1 - Barton Lane	0	0	195	15
J1 - A453 (NE)	4	0	54	0
J1 - West Leake Lane	61	0	0	199
J1 - A453 (SW)	0	0	0	0
	Junction 2			
	J2 - Barton Lane	J2 - A453 (NE)	J2 - Barton Lane (S)	J2 - A453 (SW)
J2 - Barton Lane	0	1	18	0
J2 - A453 (NE)	0	0	0	0
J2 - Barton Lane (S)	8	57	0	0
J2 - A453 (SW)	13	0	192	0

3.35 A comparison of the observed and modelled queues are presented in **Table 14** below.

Table 14. Junction 17 Queue Comparison

Arm	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
Barton Lane (N)	0.4	0.4	0.0	0	0.2	0.2
A453 (NE)	0.5	0	-0.5	0.1	0	-0.1
West Leake Lane	0.6	0.5	-0.1	0.2	0.3	0.1
Barton Lane (N)	0.4	0.1	-0.3	0	0	0.0
Barton Lane (S)	0.6	0.1	-0.5	0.1	0.1	0.0
A453 (SW)	0.7	0.2	-0.5	0.2	0.1	-0.1

3.36 The results show that queue lengths on all arms compare well with the observed data and validates well for both the morning and evening peak periods. Therefore, this model is considered suitable for testing the future forecast traffic flows.

3.37 The full model extracts and geometries are provided within **Appendix 7**.

4. SIGNAL CONTROLLED JUNCTIONS

Introduction

4.1 This section summarises the base modelling results and validation of the signal-controlled junctions which have been built using JCT's LinSig software (version V3.2.44), and are as follows:

- Junction 6 - A453/East Midlands Airport Signal Junction
- Junction 10 - A453/Walton Hill Signal Junction
- Junction 12 – M1 Junction 23
- Junction 13 – A50 Junction 1
- Junction 14 – M1 Junction 25

4.2 The available traffic signal statistics/data has been sourced from all relevant highway authorities and have been used to build the models.

4.3 Further to manual turning counts, manual green time survey and Degree of Saturation (DoS) surveys were also undertaken to validate the models.

4.4 TfL modelling guidelines recommend that:

"A Degree of Saturation (DoS) survey should be conducted on all critical (Long Lanes) approaches for each modelled period. Critical approaches would include those close to saturation, those that determine stage length and those key to scheme proposals".

4.5 The validation criteria for LinSig models are presented in 'TfL modelling guidelines' which indicates that modelled DoS should be within 5% of observed values. This has been used as the threshold for validating the base LinSig models.

Junction 6 - A453/Airport Access Signal Junction

Signal Operation

4.6 The junction currently operates on one controller, A summary of the signal operation has been detailed below.

- Stage 1: A453 East Ahead and West Ahead/Left
- Stage 2: A453 East Ahead/Right and Airport Access Left Turn
- Stage 3: Airport Access Left and Right (This stage is demand dependant if vehicles are waiting to turn right)

Model Amendments

4.7 The videos of the survey have been reviewed to determine how often stage 3 is activated. The video showed that in the morning peak period stage 3 occurs a total of

14 times within the hour. As a result of this bonus green times were calculated and input into the LinSig model to reflect the demand dependency of stage 3 in the morning peak hour period.

Base Model Validation

4.8 The observed traffic flow movements are summarised below in **Table 15**

Table 15. Junction 6 2023 Observed Flows (PCUs)

	AM Peak			
	Airport Access	A453 (E)	A453 (W)	Total
Airport Access	0	114	39	153
A453 (E)	241	0	390	631
A453 (W)	129	460	0	589
Total	370	574	429	1373
	PM Peak			
	Airport Access	A453 (E)	A453 (W)	Total
Airport Access	0	224	65	289
A453 (E)	133	0	443	576
A453 (W)	41	347	0	388
Total	174	571	508	1253

4.9 The 2023 observed flows have been tested in the LinSig model and a comparison of modelled and observed DoS for the critical lanes is presented in **Table 16** below. Additional readings were undertaken for A453 W Lane one in the evening peak hour period.

Table 16. Junction 6 DoS Comparison

Arm / Lane	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
EMG Access – Lane 1	15.6%	18.3%	2.7%	32.4%	32.2%	-0.2%
A453 (E) – Lane 1	19.2%	32.8%	13.6%	31.5%	31.7%	0.2%
A453 (W) – Lane 2	43.8%	47.2%	3.4%	36.3%	32.8%	-3.5%

4.10 **Table 16** shows that modelled DoS are within 5% of observed DoS apart from the A453 (E) in the morning peak period. Due to the flare on A453 (E) LinSig provides a higher DoS reading for the A453 (E) ahead movement despite sufficient stacking capacity available on the flare. Therefore, the flare has been converted to a long lane to examine the DoS on the A453 (E) ahead movement. A summary of the results are presented in **Table 17** below.

Table 177. Junction 6 DoS Comparison (With Long Lane on A453 (E))

Arm / Lane	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference

EMG Access – Lane 1	15.6%	18.3%	2.7%	32.4%	32.8%	0.4%
A453 (E) – Lane 1	19.2%	21.0%	1.8%	31.5%	29.0%	-2.5%
A453 (W) – Lane 2	43.8%	47.2%	3.4%	36.3%	32.1%	-4.2%

4.11 The table above now that the A453 (E) ahead movement now validates therefore it is considered that higher DoS reading inclusive of flare may be due to limitations in LinSig. Nevertheless, the original model inclusive of the short flare adjacent to A453 (E) is retained for forecast modelling scenarios.

4.12 Further to the above, a queue comparison has been undertaken on the A453 (E) approach which are shown in **Table 18** below.

Table 188. Junction 6 Queue Comparison on A453 (E) Approach

Arm / Lane	AM		
	Observed	Modelled	Difference
A453 (E) – Lane 1	1.9	0.8	0.8
A453 (E) – Lane 2	3.3	5.1	1.8

4.13 The table above shows that the queues are within 2 PCU between the modelled and observed and therefore, it is considered that the base model validates well and the model is considered suitable to test the future forecast scenarios.

4.14 A copy of the LinSig outputs are presented in **Appendix 8**.

Junction 10 – A453/Walton Hill Signal Junction

Signal Operation

4.15 The junction currently operates on one controller, A summary of the signal operation has been detailed below.

- Stage 1: A453 West Ahead/Left and A453 East Ahead
- Stage 2: A453 East Ahead/Right and Walton Hill Left Turn
- Stage 3: Walton Hill Left/Right Turn and A53 West Left

Base Model Validation

4.16 The observed survey traffic flow movements are summarised below in **Table 19.**

Table 19. Junction 10 2023 Observed Flows (PCUs)

	AM Peak			
	Local Road	A453 (E)	Walton Hill	Total
Local Road	0	520	287	807
A453 (E)	215	0	189	404
Walton Hill	314	406	0	720

Total	529	926	476	1931
	PM Peak			
	Local Road	**A453 (E)**	**Walton Hill**	**Total**
Local Road	0	228	289	517
A453 (E)	343	0	288	631
Walton Hill	227	187	0	414
Total	570	415	577	1562

4.17 It was noted that after replicating the latest signal specification at the junction additional DoS readings were required to understand whether the model still validates. This is as a result of the junction operating on MOVA and DoS readings would vary between cycles. Therefore, additional readings were taken at the junction and a comparison of modelled and observed DoS for the critical lanes is presented in **Table 20** below.

Table 20. Junction 10 DoS Comparison

Arm / Lane	AM			PM		
	Observed	**Modelled**	**Difference**	**Observed**	**Modelled**	**Difference**
Local Road - Lane 1	49.6%	53.5%	3.9%	48.8%	53.3%	4.5%
A453 (E) - Lane 1	46.0%	50.4%	4.4%	49.9%	52.8%	2.9%
Walton Hill - Lane 2	60.9%	63.0%	2.1%	45.3%	50.0%	4.7%

4.18 **Table 20** shows that modelled DoS of all critical lanes are within 5% of observed DoS. Hence, it is considered that the base model validates well and therefore the model is considered suitable to test the future forecast scenarios.

4.19 A copy of the LinSig outputs are presented in **Appendix 9**.

Junction 12 – M1 J23

Model Calibration

4.20 Pedestrian crossings are present on the northern arms of the junction (M1 north on and off-slips), the video has been reviewed to see how often these crossings are called and they shown that there was no pedestrian calling the crossings. Therefore, the crossing on the M1 north on-slip has not been included within the model as they would not have an impact on the model, this is phases F in controller specification 1.

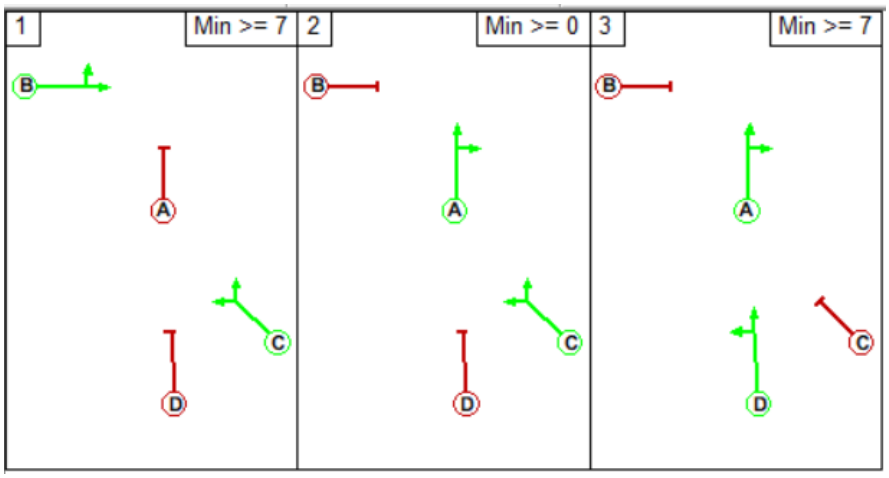
4.21 Phase E in controller specification 2 is the crossing on the M1 north off-slip and would also not be called however, upon review the controller specification would interact with the intergreen time of phase B and therefore kept in the model for this reason.

4.22 The signal specification for both controllers have dummy phases, controller 1 is phase G and controller 2 is phase F and therefore not included within the model.

Signal Operation

4.23 The junction currently operates on two controllers, one controlling the western side of the junction, and the second controlling the eastern side of the junction. Details of the stage sequence for the respective controllers are provided below.

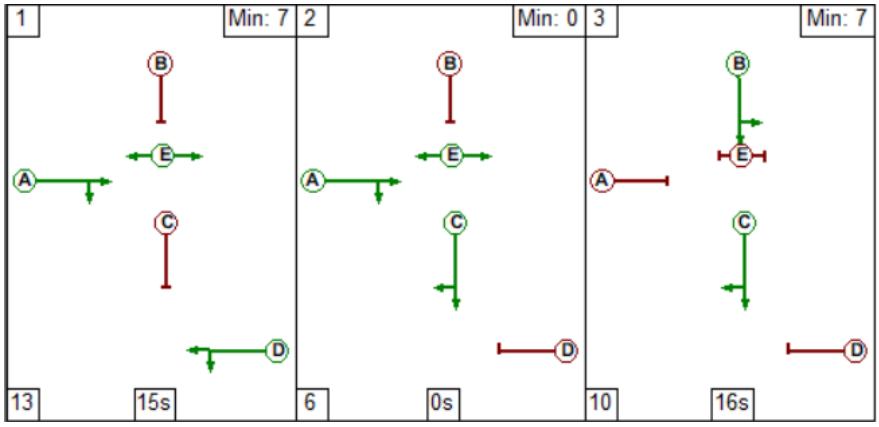
Controller 1: M1 J23 Western side



- Stage 1: A512 West approach and South Circulatory
- Stage 2: West Circulatory and South Circulatory
- Stage 3: M1 South Off-slip Approach and West Circulatory

4.24 Upon reviewing the signal specification for the eastern side controller the stages are shown to 1,2,3, however a review of the video survey indicates that stage 2 doesn't activate in both peak hour periods and therefore only stages 1 and 3 have been modelled for the eastern side controller.

Controller 2: M1 J23 Eastern side



- Stage 1: North Circulatory, A512 East Approach and Ped crossing over M1 North Off-slip
- Stage 2: North Circulatory, North Circulatory and Ped crossing over M1 North Off-slip
- Stage 3: M1 North Off-slip Approach and East Circulatory

Base Model Validation

4.25 The observed traffic flow movements are summarised below in **Table 21.**

Table 21. Junction 11 O/D Data (PCUs)

	AM Peak			
	M1 SB Off-slip	**A512 East**	**M1 NB Off-slip**	**A512 West**
M1 SB Off-slip	0	795	0	377
A512 East	494	0	161	378
M1 NB Off-slip	0	423	0	44
A512 West	290	735	132	0
	PM Peak			
	M1 SB Off-slip	**A512 East**	**M1 NB Off-slip**	**A512 West**
M1 SB Off-slip	0	408	0	187
A512 East	491	0	351	520
M1 NB Off-slip	0	203	0	168
A512 West	218	389	118	0

4.26 Additional DoS readings were undertaken for A512 W lane 3 and a comparison of modelled and observed DoS for the critical lanes has been presented in **Table 22**.

Table 22. Junction 11 DoS Comparison

Arm / Lane	AM			PM		
	Observed	**Modelled**	**Difference**	**Observed**	**Modelled**	**Difference**
M1 South Bound Off-slip – Lane 1	53.0%	57.9%	4.9%	46.4%	45.8%	-0.6%
M1 South Bound Off-slip - Lane 2	58.7%	59.9%	1.2%	62.8%	65.8%	3.0%
A512 West Bound Off-slip – Lane 2	54.7%	55.8%	1.1%	59.8%	56.6%	-3.2%
A512 West Bound Off-slip – Lane 3	68.1%	72.6%	4.5%	51.6%	49.5%	-2.1%
M1 North Bound Off-slip – Lane 2	No Signal Head in Camera View So Validated Against Queues					
M1 North Bound Off-slip – Lane 3						
A512 East Bound Off-slip – Lane 2	63.4%	67.2%	3.8%	46.2%	41.4%	-4.8%

4.27 **Table 22** shows that modelled DoS of all critical lanes are within 5% of observed DoS, Hence, it is considered that the base model validates well and therefore, is suitable to test the future forecast scenarios.

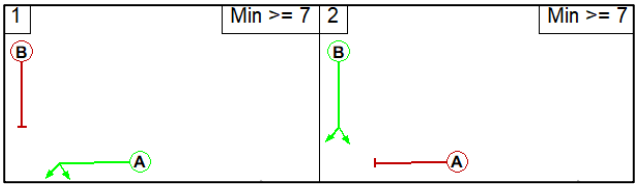
4.28 A copy of the LinSig outputs are presented in **Appendix 10.**

Junction 13 – A50 Junction 1

Signal Operation

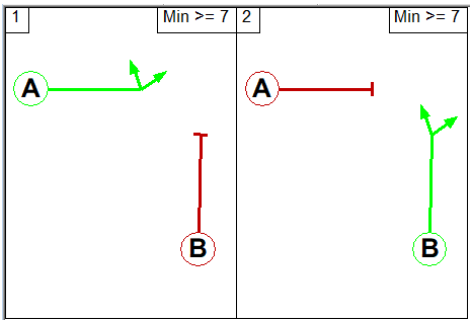
4.29 The junction currently operates on two controllers, one controlling the A50 westbound approach arm and circulatory, and the second controlling the A50 eastbound approach arm and circulatory. Details of the stage sequence for the respective controllers are provided below.

Controller 1: A50 Westbound Approach



- Stage 1: A50 East approach
- Stage 2: East Circulatory

Controller 2: A50 Eastbound Approach



- Stage 1: A50 West approach
- Stage 2: West Circulatory

Unequal Lane Usage Amendments

4.30 The initial LinSig model built using the signal data, showed unequal lane usage on the Trent Lane arm for vehicles travelling to the A50 eastbound, with the majority of vehicles using lane 3. The CCTV footage was reviewed and showed that vehicles used both lanes 2 and 3 at approximately 2/3 1/3 split respectively. Therefore, flows have been altered manually to allow for the split in the route list view in LinSig which in turn validated this arm.

Base Model Validation

4.31 The observed survey traffic flow movements are summarised below in

4.32 Table 23

Table 23. Junction 13 2023 Observed Flows (PCUs)

	AM Peak					
	B5010	B6540	A50 J1 Slip Road (E)	Ryecraft Road	Trent Lane	A50 J1 Slip Road (W)
B5010	0	65	88	5	95	72
B6540	37	0	315	11	237	198
A50 J1 Slip Road (E)	64	269	0	13	419	0
Ryecraft Road	3	10	15	0	10	12
Trent Lane	49	145	292	12	0	347
A50 J1 Slip Road (W)	14	245	0	15	449	0
	PM Peak					
	B5010	B6540	A50 J1 Slip Road (E)	Ryecraft Road	Trent Lane	A50 J1 Slip Road (W)
B5010	0	51	61	3	65	79
B6540	69	0	261	6	173	182
A50 J1 Slip Road (E)	121	279	0	16	330	0
Ryecraft Road	5	15	17	0	11	15
Trent Lane	107	235	415	17	0	501
A50 J1 Slip Road (W)	20	199	0	14	383	0

4.33 The 2023 observed flows have been tested in the LinSig model and a comparison of modelled and observed DoS for the critical lanes has been presented in **Table 24**.

Table 24. Junction 13 DoS Comparison

Arm / Lane	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
A50 Westbound approach lane 1	49.8%	50.1%	0.3%	40.9%	40.1%	-0.8%
A50 Westbound approach lane 2	34.2%	35.9%	1.7%	40.9%	43.2%	2.3%
A50 Eastbound approach lane 1	47.3%	48.8%	1.5%	47.4%	46.4%	-1.0%

4.34 **Table 24** shows that modelled DoS of all critical lanes are within 5% of observed DoS. It is considered that the base model validates well and therefore, this model is considered suitable to test the future forecast scenarios.

4.35 A copy of the LinSig outputs are presented in **Appendix 11.**

Junction 14 – M1 J25

Signal Operation

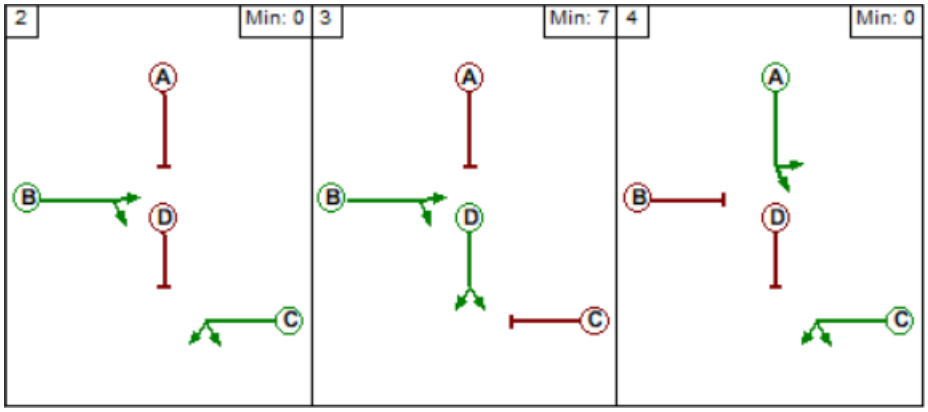
4.36 The junction currently operates on two controllers, one controlling the eastern side of the junction, and the second controlling the western side of the junction.

4.37 Analysis of the video footage indicated that the eastern controller operated on a 75 second cycle time and western controller on 60 second cycle time in the morning and evening peak hours respectively.

4.38 Details of the stage sequence based on video footage observation for the respective controllers for AM and PM are provided below.

AM Stage Sequences

Controller 1: M1 J25 Eastern side

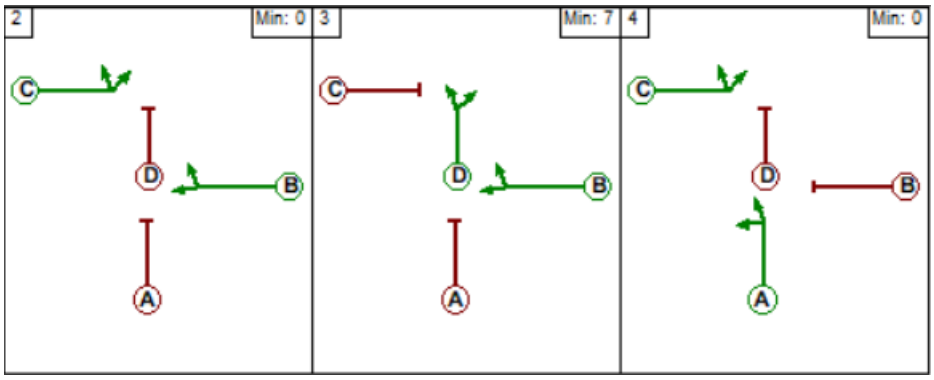


i. Stage 2: North Circulatory and A52 Westbound Off-slip Approach

ii. Stage 3: North Circulatory and East Circulatory

iii. Stage 4: M1 Southbound Off-slip Approach and A52 Westbound Off-slip Approach

Controller 2: M1 J25 Western Side



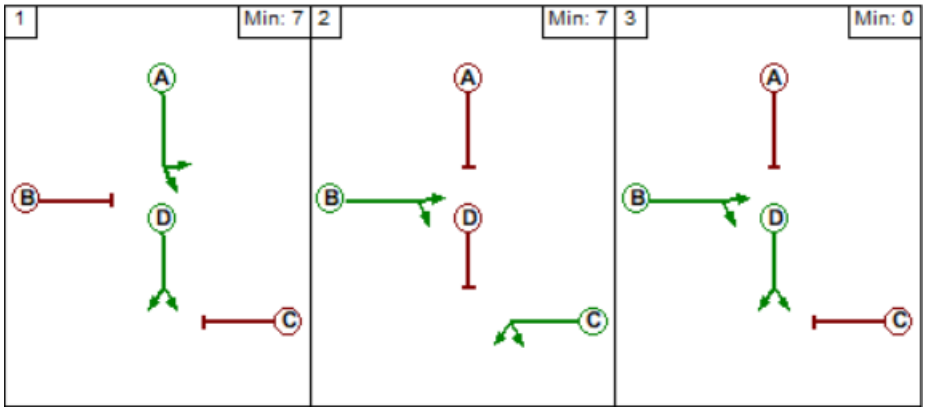
i. Stage 2: South Circulatory and A52 Eastbound Off-slip Approach

ii. Stage 3: South Circulatory and West Circulatory

iii. Stage 4: M1 Northbound Off-slip Approach and A52 Eastbound Off-slip Approach

PM Stage Sequences

Controller 1: M1 J25 Eastern side

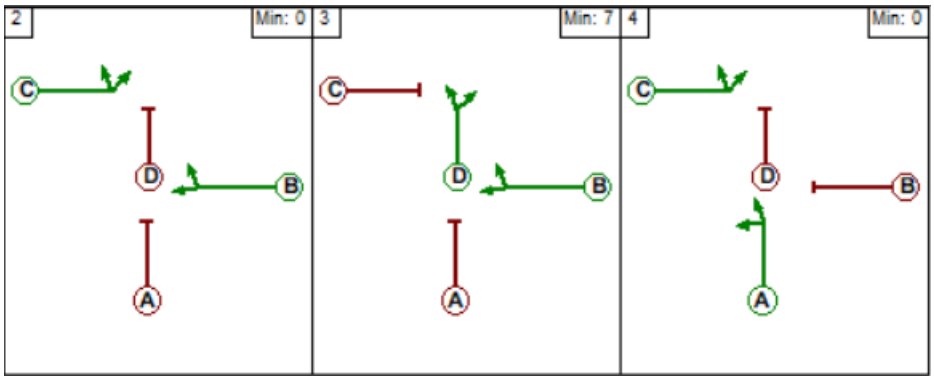


i. Stage 1: M1 Southbound Off-slip Approach and East Circulatory

ii. Stage 2: North Circulatory and A52 Westbound Off-slip Approach

iii. Stage 3: North Circulatory and East Circulatory

Controller 2: M1 J25 Western Side



i. Stage 2: South Circulatory and A52 Eastbound Off-slip Approach

ii. Stage 3: South Circulatory and West Circulatory

iii. Stage 4: M1 Northbound Off-slip Approach and A52 Eastbound Off-slip Approach

Unequal Lane Usage Amendments

4.39 The initial LinSig model built using the signal data, showed unequal lane usage on the M1 northbound off slip arm for vehicles travelling to the A52 eastbound, with the majority of vehicles using lane 3. The CCTV footage was reviewed and showed that vehicles

used both lanes 2 and 3 equally. Therefore, flows have been altered manually to allow an even 50/50 split in the route list view in LinSig which in turn validated this arm.

Base Model Validation

4.40 The observed survey traffic flow movements are summarised below in **Table 25.**

Table 25. Junction 14 O/D Data (PCUs)

	AM Peak					
	M1 (N)	A52 (E)	Bostocks Lane (S)	M1 (S)	A52 (W)	Bostocks Lane (N)
M1 (N)	0	357	308	0	642	160
A52 (E)	342	0	197	480	0	100
Bostocks Lane (S)	208	167	0	239	223	57
M1 (S)	0	457	220	0	313	200
A52 (W)	373	0	142	377	0	148
Bostocks Lane (N)	215	163	83	280	195	0
	PM Peak					
	M1 (N)	A52 (E)	Bostocks Lane (S)	M1 (S)	A52 (W)	Bostocks Lane (N)
M1 (N)	0	262	242	0	338	158
A52 (E)	368	0	373	387	0	133
Bostocks Lane (S)	219	132	0	101	177	76
M1 (S)	0	494	203	0	177	313
A52 (W)	563	0	131	244	0	108
Bostocks Lane (N)	170	136	66	126	88	0

4.41 The 2023 observed flows have been tested in the LinSig model and a comparison of modelled and observed DoS for the critical lanes has been presented in **Table 26** below.

Table 26. Junction 14 DoS Comparison

Arm / Lane	AM			PM		
	Observed	Modelled	Difference	Observed	Modelled	Difference
M1 South Bound Off-slip - Lane 2	79.80%	79.60%	-0.20%	76.00%	78.70%	2.70%
M1 South Bound Off-slip - Lane 3	64.50%	69.20%	4.70%	81.00%	78.30%	-2.70%
A52 West Bound Off-slip - Lane 2	50.60%	49.30%	-1.30%	71.40%	76.10%	4.70%
A52 West Bound Off-slip – Lane 3	59.60%	59.50%	-0.10%	76.70%	75.90%	-0.80%
M1 North Bound Off-slip – Lane 2	88.60%	83.90%	-4.70%	75.40%	75.40%	0.00%

M1 North Bound Off-slip - Lane 3	71.10%	72.20%	1.10%	65.80%	68.20%	2.40%
A52 East Bound Off-slip - Lane 1	72.60%	73.70%	1.10%	81.10%	83.00%	1.90%
A52 East Bound Off-slip - Lane 2	76.40%	75.10%	-1.30%	82.10%	82.40%	0.30%

4.42 **Table 26** shows that modelled DoS of all critical lanes are within 5% of observed data. It is considered that the base model validates well and therefore, the model is considered suitable to test the future forecast scenarios.

4.43 A copy of the LinSig outputs are presented in **Appendix 12**.

5. SUMMARY

5.1 The purpose of this Technical Note is to agree the base Junctions 10 and LinSig models to demonstrate they are suitable ahead of testing the future forecast traffic flows.

5.2 It has been demonstrated that all junctions validate well against observed data from the 2023 surveys and industry standard validation thresholds. As such all 17 models are considered suitable to test the future forecast traffic flows and understand where the development is expected to generate significant impacts and therefore where mitigation is required.

APPENDICES

APPENDIX 1: Junction 7 - A453/Grimes Gate Priority Junction Model Outputs

A453/GRIMES GATE PICADY MEASUREMENTS
SCALE - 1:500@A3

VISIBILITY C-AB = 190m

ARM A

VISIBILITY TO RIGHT = 100m

8.0

Path

VISIBILITY TO LEFT = 215m

4.4
4.0
4.3
4.3
3.8

43.0

3.1

Cycle Way

3.5

6.7

ARM C

ARM B

MAJOR ROAD
= (7.6+8.0 / 2
= 15.6 / 2
= 7.8m

MINOR ROAD (one lane plus flare)
0m = 10m
5m = 7.5m
10m = 7.4m
15m = 4.3m
20m = 3.8m

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 240213 A453_Grimes Gate PICADY Model (Base Only).j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\7. A453_Grimes Gate
Report generation date: 05/04/2024 14:03:07

»2022 Observed, AM
»2022 Observed, PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2022 Observed															
Stream B-C	D1	0.0	6.14	0.01	A	0.67	A	114 % [Stream B-A]	D2	0.0	6.42	0.02	A	0.43	A	147 % [Stream B-A]
Stream B-A		0.2	8.25	0.14	A					0.1	7.54	0.06	A			
Stream C-AB		0.0	4.07	0.02	A					0.0	4.85	0.03	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/Grimes Gate
Site number	
Date	06/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Observed	AM	ONE HOUR	08:00	09:30	15
D2	2022 Observed	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.67	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	114	Stream B-A	0.67	A

Arms

Arms

Arm	Name	Description	Arm type
A	A453 (E)		Major
B	Grimes Gate		Minor
C	A453 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.80			190.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	8.25	7.50	7.40	4.30	3.80		1.00	215	153

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	732	0.123	0.311	0.195	0.444
B-C	700	0.099	0.250	-	-
C-B	684	0.244	0.244	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Observed	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	316	100.000
B		✓	70	100.000
C		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	296
	B	64	0	6
	C	547	7	0

Vehicle Mix

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.14	0.0	A
B-A	0.14	8.25	0.2	A
C-AB	0.02	4.07	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	629	0.007	4	0.0	5.764	A
B-A	48	578	0.083	48	0.1	6.784	A
C-AB	10	895	0.011	10	0.0	4.068	A
C-A	407			407			
A-B	15			15			
A-C	223			223			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	614	0.009	5	0.0	5.912	A
B-A	58	548	0.105	57	0.1	7.332	A
C-AB	13	938	0.014	13	0.0	3.890	A
C-A	485			485			
A-B	18			18			
A-C	266			266			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	593	0.011	7	0.0	6.137	A
B-A	70	507	0.139	70	0.2	8.241	A
C-AB	19	1001	0.019	19	0.0	3.667	A
C-A	591			591			
A-B	22			22			
A-C	326			326			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	593	0.011	7	0.0	6.137	A
B-A	70	507	0.139	70	0.2	8.248	A
C-AB	19	1001	0.019	19	0.0	3.667	A
C-A	591			591			
A-B	22			22			
A-C	326			326			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	614	0.009	5	0.0	5.913	A
B-A	58	548	0.105	58	0.1	7.341	A
C-AB	13	938	0.014	13	0.0	3.892	A
C-A	485			485			
A-B	18			18			
A-C	266			266			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	629	0.007	5	0.0	5.768	A
B-A	48	578	0.083	48	0.1	6.795	A
C-AB	10	895	0.011	10	0.0	4.068	A
C-A	407			407			
A-B	15			15			
A-C	223			223			

2022 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/Grimes Gate	T-Junction	Two-way	Two-way	Two-way		0.43	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	147	Stream B-A	0.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Observed	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	482	100.000
B		✓	37	100.000
C		✓	330	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	74	408
	B	28	0	9
	C	318	12	0

Vehicle Mix

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	6.42	0.0	A
B-A	0.06	7.54	0.1	A
C-AB	0.03	4.85	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	612	0.011	7	0.0	5.948	A
B-A	21	579	0.036	21	0.0	6.450	A
C-AB	13	756	0.018	13	0.0	4.848	A
C-A	235			235			
A-B	56			56			
A-C	307			307			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	595	0.014	8	0.0	6.137	A
B-A	25	549	0.046	25	0.0	6.869	A
C-AB	17	772	0.022	17	0.0	4.767	A
C-A	280			280			
A-B	67			67			
A-C	367			367			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	571	0.017	10	0.0	6.420	A
B-A	31	508	0.061	31	0.1	7.541	A
C-AB	24	797	0.030	24	0.0	4.656	A
C-A	340			340			
A-B	81			81			
A-C	449			449			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	571	0.017	10	0.0	6.420	A
B-A	31	508	0.061	31	0.1	7.541	A
C-AB	24	797	0.030	24	0.0	4.656	A
C-A	340			340			
A-B	81			81			
A-C	449			449			

18:00 - 18:15

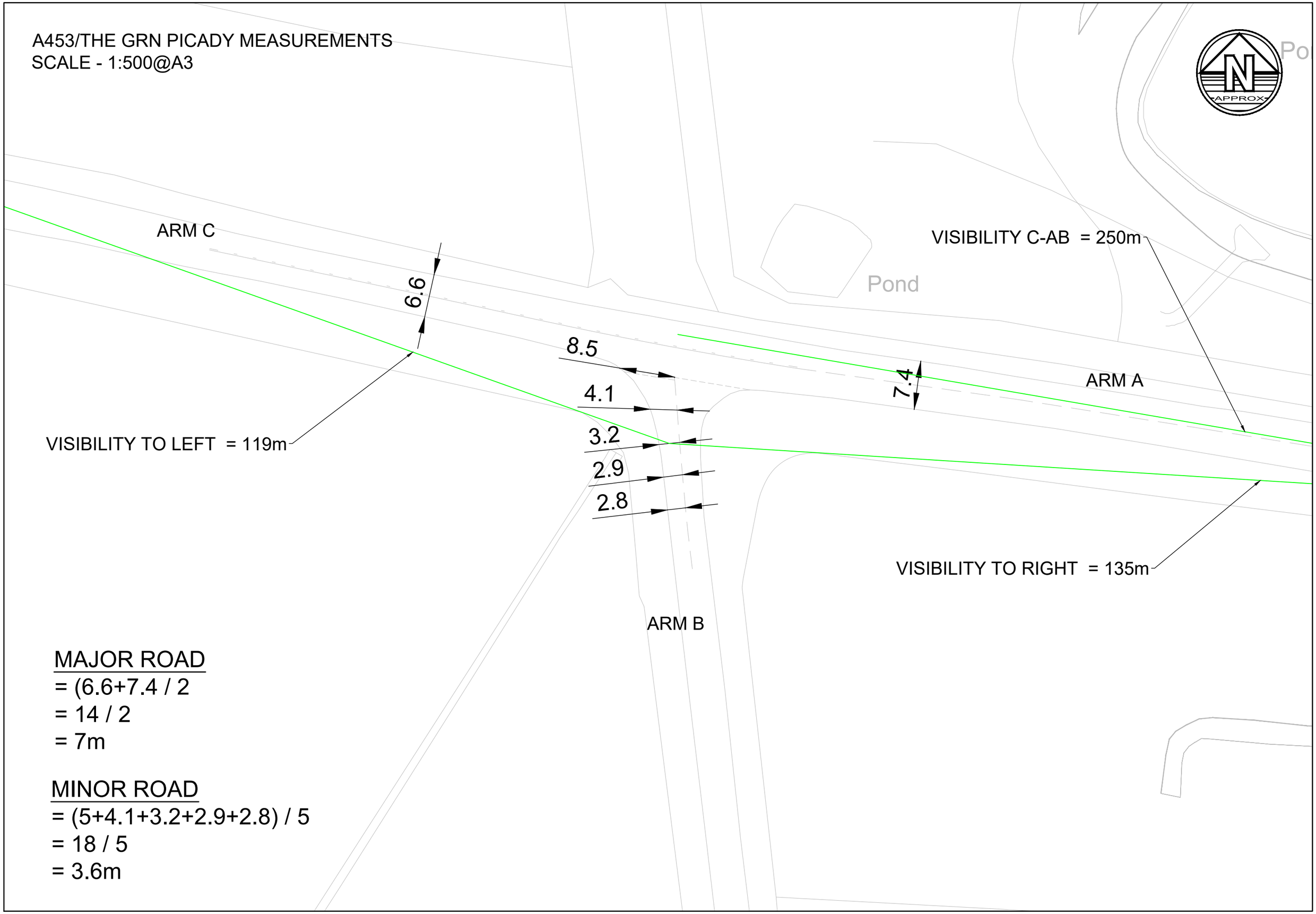
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	595	0.014	8	0.0	6.140	A
B-A	25	549	0.046	25	0.0	6.871	A
C-AB	17	772	0.022	17	0.0	4.769	A
C-A	279			279			
A-B	67			67			
A-C	367			367			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	612	0.011	7	0.0	5.951	A
B-A	21	579	0.036	21	0.0	6.456	A
C-AB	13	756	0.018	13	0.0	4.849	A
C-A	235			235			
A-B	56			56			
A-C	307			307			

APPENDIX 2: Junction 8 - A453/The Green Priority Junction Model Outputs

A453/THE GRN PICADY MEASUREMENTS
SCALE - 1:500@A3



MAJOR ROAD
= (6.6+7.4 / 2
= 14 / 2
= 7m

MINOR ROAD
= (5+4.1+3.2+2.9+2.8) / 5
= 18 / 5
= 3.6m

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.3.1598
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Filename: Import of 230124 A453_The Green (BASE ONLY).j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\Models\A453_The Green Junction
Report generation date: 05/01/2024 12:21:59

»2022 Observed, AM
»2022 Observed, PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2022 Observed															
Stream B-AC	D1	0.2	7.51	0.19	A	1.44	A	100 %	D2	0.2	7.47	0.14	A	1.63	A	109 %
Stream C-AB		0.5	4.42	0.19	A			[Stream C-AB]		0.5	5.71	0.24	A			[Stream C-AB]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/The Green T-Junction
Site number	
Date	06/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Observed	AM	ONE HOUR	08:00	09:30	15
D2	2022 Observed	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		1.44	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	100	Stream C-AB	1.44	A

Arms

Arms

Arm	Name	Description	Arm type
A	A453 (E)		Major
B	The Green		Minor
C	A453 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00			250.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.60	119	135

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	621	0.108	0.273	0.172	0.390
B-C	752	0.110	0.279	-	-
C-B	719	0.266	0.266	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Observed	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	302	100.000
B		✓	103	100.000
C		✓	609	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	12	290
	B	18	0	85
	C	536	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	7.51	0.2	A
C-AB	0.19	4.42	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	637	0.122	77	0.1	6.419	A
C-AB	98	914	0.108	98	0.2	4.409	A
C-A	360			360			
A-B	9			9			
A-C	218			218			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	619	0.150	92	0.2	6.834	A
C-AB	133	955	0.139	133	0.3	4.380	A
C-A	415			415			
A-B	11			11			
A-C	261			261			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	593	0.191	113	0.2	7.499	A
C-AB	193	1014	0.191	193	0.5	4.389	A
C-A	477			477			
A-B	13			13			
A-C	319			319			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	593	0.191	113	0.2	7.506	A
C-AB	194	1014	0.191	193	0.5	4.394	A
C-A	477			477			
A-B	13			13			
A-C	319			319			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	619	0.150	93	0.2	6.843	A
C-AB	133	956	0.139	134	0.3	4.388	A
C-A	414			414			
A-B	11			11			
A-C	261			261			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	637	0.122	78	0.1	6.437	A
C-AB	99	915	0.108	99	0.2	4.421	A
C-A	360			360			
A-B	9			9			
A-C	218			218			

2022 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A453/The Green T-Junction	T-Junction	Two-way	Two-way	Two-way		1.63	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	109	Stream C-AB	1.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Observed	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	417	100.000
B		✓	72	100.000
C		✓	420	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	12	405
	B	14	0	58
	C	316	104	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	7.47	0.2	A
C-AB	0.24	5.71	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	614	0.088	54	0.1	6.421	A
C-AB	112	789	0.142	111	0.2	5.308	A
C-A	204			204			
A-B	9			9			
A-C	305			305			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	592	0.109	65	0.1	6.823	A
C-AB	145	805	0.180	144	0.3	5.451	A
C-A	233			233			
A-B	11			11			
A-C	364			364			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	79	561	0.141	79	0.2	7.469	A
C-AB	198	829	0.239	197	0.5	5.700	A
C-A	265			265			
A-B	13			13			
A-C	446			446			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	79	561	0.141	79	0.2	7.473	A
C-AB	198	830	0.239	198	0.5	5.713	A
C-A	264			264			
A-B	13			13			
A-C	446			446			

18:00 - 18:15

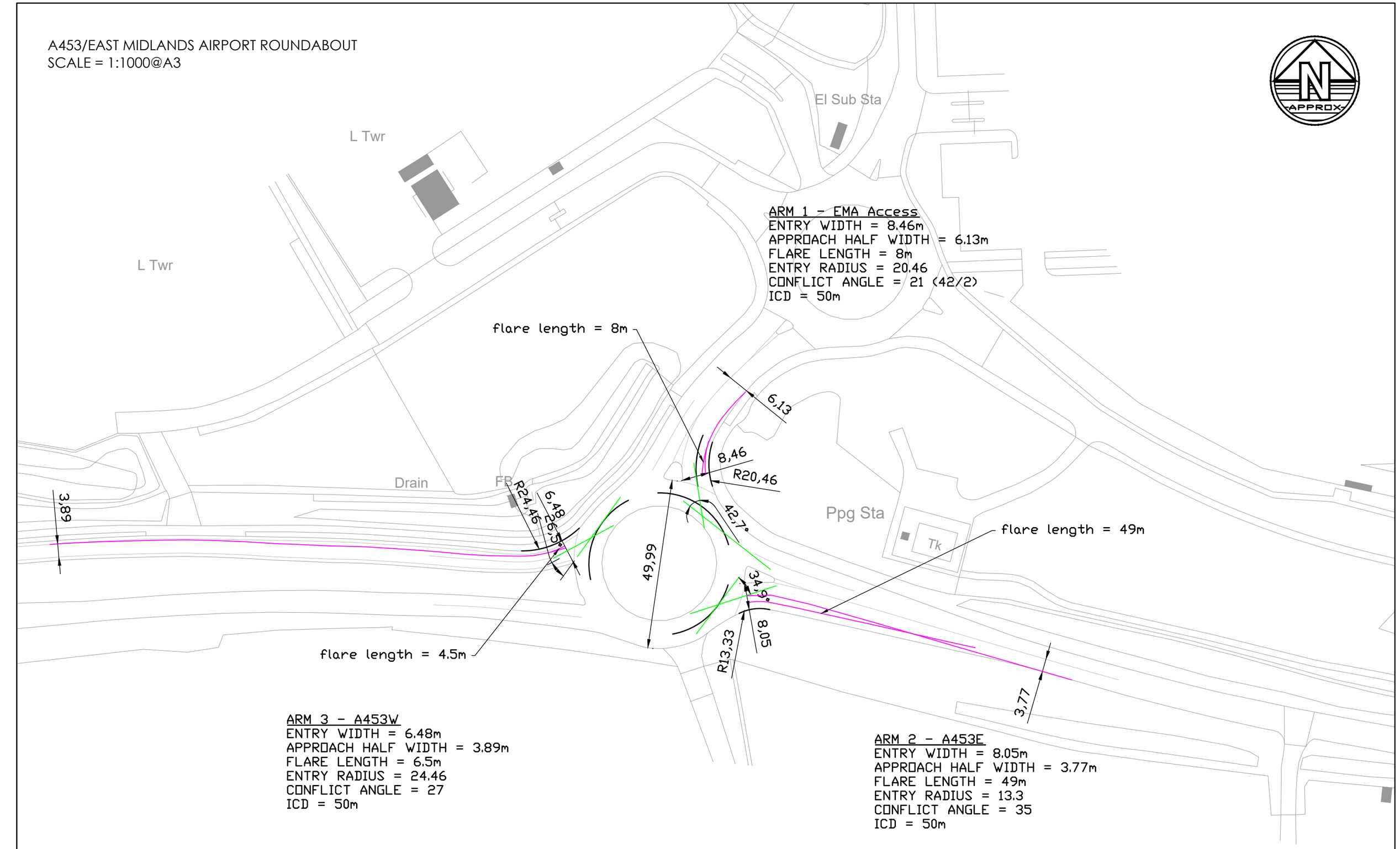
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	65	592	0.109	65	0.1	6.834	A
C-AB	145	806	0.180	146	0.3	5.466	A
C-A	232			232			
A-B	11			11			
A-C	364			364			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	614	0.088	54	0.1	6.433	A
C-AB	112	789	0.142	113	0.2	5.329	A
C-A	204			204			
A-B	9			9			
A-C	305			305			

APPENDIX 3: Junction 9 - A453/East Midlands Airport Roundabout Model Outputs

A453/EAST MIDLANDS AIRPORT ROUNDABOUT
SCALE = 1:1000@A3



Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.1.1905
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Filename: 240213 A453_EMA Roundabout ARCADY Model (Lane Sim) (Base Only).j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\9. A453_EMA Roundabout
Report generation date: 05/04/2024 14:08:58

»2022 Base Flows, AM
»2022 Base Flows, PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	[Lane Simulation] - 2022 Base Flows															
Arm 1	D1	0.3	4.26	0.14	A	5.93	A	%	D2	0.4	4.54	0.25	A	4.80	A	%
Arm 2		0.9	4.82	0.35	A			[ ]		0.7	4.42	0.32	A			[ ]
Arm 3		1.3	7.51	0.46	A					0.8	5.58	0.29	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	East Midlands Gateway Phase 2
Location	A453/EMA Roundabout
Site number	
Date	24/01/2023
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	220500
Enumerator	BWB\matt.corner
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					✓	Delay	0.85	36.00	20.00		

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Calculate RFCs	Relaxation factor for capacity/RFC runs	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials
Delay	1.00	100000	100000	Calculate for all arms	3.00	-1	3	1	60	✓			1467308316	48

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2022 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	5.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.93	A

Arms

Arms

Arm	Name	Description	No give-way line
1	EMA Access		
2	A453 (E)		
3	A453 (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	6.13	8.46	8.0	20.5	50.0	21.0		
2	3.77	8.05	49.0	13.3	50.0	35.0		
3	3.89	6.48	6.5	24.5	50.0	27.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.730	2295
2	0.666	2065
3	0.586	1553

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1	Evenly split	10.00
2	Evenly split	20.00
3	Evenly split	20.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1	Entry	1	1	2	✓	3.00			0	99999	
			2	1, 3	✓	3.00			0	99999	
		2	1	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2	Entry	1	1	3	✓	11.00			0	99999	
			2	1, 2, 3	✓	11.00			0	99999	
		2	1	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
3	Entry	1	1	1, 2	✓	14.00			0	99999	
			2	2, 3	✓	14.00			0	99999	
		2	1	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1	Entry	1	1	0.365	1147
			2	0.365	1147
2	Entry	1	1	0.333	1033
			2	0.333	1033
3	Entry	1	1	0.293	777
			2	0.293	777

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			1	2	3
1	1	1		✓	
		2	✓		✓
	2	1	✓	✓	✓
2	1	1			✓
		2	✓	✓	✓
	2	1	✓	✓	✓
3	1	1	✓	✓	
		2		✓	✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	153	100.000
2		ONE HOUR	✓	631	100.000
3		ONE HOUR	✓	589	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	114	39
	2	241	0	390
	3	129	460	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Cyclist %

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.14	4.26	0.3	A	143	215
2	0.35	4.82	0.9	A	569	853
3	0.46	7.51	1.3	A	549	824

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	109	27	352	1347	0.081	109	114	283	0.0	0.1	3.606	A
2	481	120	32	2042	0.235	481	471	430	0.0	0.5	4.125	A
3	446	112	186	1454	0.307	450	441	327	0.0	0.5	6.015	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	157	39	418	1324	0.118	155	144	339	0.1	0.3	4.099	A
2	557	139	40	2011	0.277	561	573	533	0.5	0.5	4.317	A
3	539	135	219	1404	0.384	538	529	382	0.5	1.2	6.454	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	179	45	506	1258	0.142	177	170	404	0.3	0.3	4.259	A
2	663	166	46	2026	0.327	665	682	637	0.5	0.8	4.533	A
3	655	164	253	1412	0.464	657	650	459	1.2	1.3	7.307	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	165	41	510	1252	0.132	167	170	406	0.3	0.1	4.205	A
2	699	175	44	1984	0.352	699	697	633	0.8	0.9	4.816	A
3	638	159	276	1429	0.446	640	647	468	1.3	1.2	7.515	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	138	34	446	1287	0.107	136	138	339	0.1	0.2	3.951	A
2	554	139	34	2002	0.277	554	562	549	0.9	0.7	4.388	A
3	566	142	217	1428	0.396	568	543	371	1.2	0.9	6.523	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	361	1312	0.084	110	115	261	0.2	0.1	3.777	A
2	458	114	25	2060	0.222	458	474	446	0.7	0.5	4.182	A
3	451	113	171	1465	0.307	451	439	312	0.9	0.7	5.971	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	78	1019	0.076	78	84	0.0	0.1	3.666	A
			2	1, 3	32	1019	0.031	32	30	0.0	0.0	3.440	A
		2	1	(1, 2, 3)	109			109	114	0.0	0.0	0.000	A
	Exit	1	1		283			283	276	0.0	0.0	0.000	A
2	Entry	1	1	3	170	1022	0.167	170	164	0.0	0.2	3.838	A
			2	1, 2, 3	310	1022	0.304	311	306	0.0	0.4	4.279	A
		2	1	(1, 2, 3)	481			481	473	0.0	0.0	0.000	A
	Exit	1	1		430			430	430	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	256	722	0.354	256	251	0.0	0.4	6.234	A
			2	2, 3	191	722	0.264	194	190	0.0	0.1	5.725	A
		2	1	(1, 2, 3)	446			446	443	0.0	0.0	0.000	A
	Exit	1	1		327			327	320	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	116	995	0.116	115	106	0.1	0.2	4.261	A
			2	1, 3	41	995	0.041	40	38	0.0	0.1	3.582	A
		2	1	(1, 2, 3)	157			157	144	0.0	0.0	0.016	A
	Exit	1	1		339			339	333	0.0	0.0	0.000	A
2	Entry	1	1	3	202	1019	0.198	203	207	0.2	0.2	3.888	A
			2	1, 2, 3	355	1019	0.348	358	366	0.4	0.3	4.560	A
		2	1	(1, 2, 3)	557			557	572	0.0	0.0	0.000	A
	Exit	1	1		533			533	517	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	306	712	0.429	306	301	0.4	0.6	6.679	A
			2	2, 3	234	712	0.328	231	228	0.1	0.6	6.159	A
		2	1	(1, 2, 3)	539			539	532	0.0	0.0	0.000	A
	Exit	1	1		382			382	396	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	133	963	0.138	131	128	0.2	0.3	4.391	A
			2	1, 3	46	963	0.048	46	43	0.1	0.0	3.857	A
		2	1	(1, 2, 3)	179			179	170	0.0	0.0	0.002	A
	Exit	1	1		404			404	404	0.0	0.0	0.000	A
2	Entry	1	1	3	238	1017	0.234	237	250	0.2	0.3	4.016	A
			2	1, 2, 3	426	1017	0.418	429	432	0.3	0.5	4.832	A
		2	1	(1, 2, 3)	663			663	684	0.0	0.0	0.000	A
	Exit	1	1		637			637	635	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	369	702	0.525	370	362	0.6	0.8	7.763	A
			2	2, 3	286	702	0.407	287	288	0.6	0.5	6.733	A
		2	1	(1, 2, 3)	655			655	651	0.0	0.0	0.000	A
	Exit	1	1		459			459	465	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	121	961	0.126	123	126	0.3	0.1	4.234	A
			2	1, 3	44	961	0.046	44	44	0.0	0.0	4.088	A
		2	1	(1, 2, 3)	165			165	169	0.0	0.0	0.009	A
	Exit	1	1		406			406	409	0.0	0.0	0.000	A
2	Entry	1	1	3	258	1018	0.253	257	259	0.3	0.4	4.113	A
			2	1, 2, 3	441	1018	0.433	442	438	0.5	0.5	5.231	A
		2	1	(1, 2, 3)	699			699	697	0.0	0.0	0.000	A
	Exit	1	1		633			633	635	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	357	696	0.513	358	359	0.8	0.7	7.878	A
			2	2, 3	281	696	0.403	282	288	0.5	0.5	7.063	A
		2	1	(1, 2, 3)	638			638	647	0.0	0.0	0.000	A
	Exit	1	1		468			468	470	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	104	985	0.106	103	106	0.1	0.2	4.010	A
			2	1, 3	34	985	0.034	34	32	0.0	0.0	3.744	A
		2	1	(1, 2, 3)	138			138	138	0.0	0.0	0.002	A
	Exit	1	1		339			339	333	0.0	0.0	0.000	A
2	Entry	1	1	3	201	1022	0.197	200	205	0.4	0.3	3.956	A
			2	1, 2, 3	353	1022	0.346	354	356	0.5	0.4	4.637	A
		2	1	(1, 2, 3)	554			554	560	0.0	0.0	0.000	A
	Exit	1	1		549			549	534	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	319	713	0.447	321	305	0.7	0.6	6.797	A
			2	2, 3	247	713	0.347	247	238	0.5	0.4	6.171	A
		2	1	(1, 2, 3)	566			566	542	0.0	0.0	0.000	A
	Exit	1	1		371			371	377	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	86	1016	0.084	85	87	0.2	0.1	3.873	A
			2	1, 3	25	1016	0.025	25	28	0.0	0.0	3.486	A
		2	1	(1, 2, 3)	111			111	115	0.0	0.0	0.000	A
	Exit	1	1		261			261	281	0.0	0.0	0.000	A
2	Entry	1	1	3	162	1024	0.158	163	166	0.3	0.1	3.881	A
			2	1, 2, 3	296	1024	0.288	295	309	0.4	0.4	4.344	A
		2	1	(1, 2, 3)	458			458	474	0.0	0.0	0.000	A
	Exit	1	1		446			446	430	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	252	726	0.347	254	252	0.6	0.4	6.214	A
			2	2, 3	199	726	0.273	198	187	0.4	0.4	5.643	A
		2	1	(1, 2, 3)	451			451	438	0.0	0.0	0.000	A
	Exit	1	1		312			312	317	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	78	19	1147	1020	0.076	78	84	0.0	0.1	3.666	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	32	8	1147	1019	0.031	32	30	0.0	0.0	3.440	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	78	19	-	-	-	78	84	0.0	0.0	0.000	A
				3	32	8	-	-	-	32	30	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	170	43	1033	1023	0.167	170	164	0.0	0.2	3.838	A
			2	1	184	46	1033	1022	0.180	186	181	0.0	0.1	4.645	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	127	32	1033	1023	0.124	126	125	0.0	0.2	3.751	A
		2	1	1	184	46	-	-	-	184	182	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	297	74	-	-	-	297	291	0.0	0.0	0.000	A
3	Entry	1	1	1	97	24	777	722	0.134	97	95	0.0	0.1	7.240	A
				2	159	40	777	723	0.220	159	156	0.0	0.3	5.620	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	191	48	777	723	0.264	194	190	0.0	0.1	5.725	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	97	24	-	-	-	97	96	0.0	0.0	0.000	A
				2	349	87	-	-	-	349	347	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	116	29	1147	994	0.116	115	106	0.1	0.2	4.261	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	41	10	1147	996	0.041	40	38	0.0	0.1	3.582	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	116	29	-	-	-	116	107	0.0	0.0	0.022	A
				3	41	10	-	-	-	41	38	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	202	51	1033	1019	0.199	203	207	0.2	0.2	3.888	A
			2	1	216	54	1033	1019	0.212	219	214	0.1	0.1	5.041	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	139	35	1033	1019	0.136	139	151	0.2	0.2	3.879	A
		2	1	1	216	54	-	-	-	216	214	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	341	85	-	-	-	341	358	0.0	0.0	0.000	A
3	Entry	1	1	1	120	30	777	712	0.168	120	118	0.1	0.3	7.811	A
				2	186	46	777	712	0.261	187	183	0.3	0.3	5.941	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	234	58	777	713	0.328	231	228	0.1	0.6	6.159	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	120	30	-	-	-	120	119	0.0	0.0	0.000	A
				2	419	105	-	-	-	419	413	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	133	33	1147	963	0.138	131	128	0.2	0.3	4.391	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	46	12	1147	961	0.048	46	43	0.1	0.0	3.857	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	133	33	-	-	-	133	128	0.0	0.0	0.002	A
				3	46	12	-	-	-	46	43	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	238	59	1033	1018	0.234	237	250	0.2	0.3	4.016	A
			2	1	251	63	1033	1018	0.247	253	260	0.1	0.4	5.457	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	175	44	1033	1018	0.171	176	172	0.2	0.1	3.885	A
		2	1	1	251	63	-	-	-	251	261	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	412	103	-	-	-	412	423	0.0	0.0	0.000	A
3	Entry	1	1	1	150	37	777	703	0.213	151	144	0.3	0.2	9.309	A
				2	220	55	777	703	0.312	219	219	0.3	0.5	6.754	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	286	72	777	702	0.407	287	288	0.6	0.5	6.733	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	150	37	-	-	-	150	143	0.0	0.0	0.000	A
				2	506	126	-	-	-	506	508	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	121	30	1147	961	0.126	123	126	0.3	0.1	4.234	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	44	11	1147	959	0.046	44	44	0.0	0.0	4.088	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	121	30	-	-	-	121	125	0.0	0.0	0.012	A
				3	44	11	-	-	-	44	44	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	258	65	1033	1018	0.253	257	259	0.3	0.4	4.113	A
			2	1	274	69	1033	1018	0.269	276	270	0.4	0.4	5.925	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	167	42	1033	1018	0.164	167	168	0.1	0.2	4.115	A
		2	1	1	274	69	-	-	-	274	270	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	425	106	-	-	-	425	427	0.0	0.0	0.000	A
3	Entry	1	1	1	130	33	777	695	0.187	130	139	0.2	0.4	9.031	A
				2	227	57	777	696	0.326	228	220	0.5	0.4	7.147	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	281	70	777	696	0.403	282	288	0.5	0.5	7.063	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	130	33	-	-	-	130	139	0.0	0.0	0.000	A
				2	508	127	-	-	-	508	508	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	104	26	1147	986	0.105	103	106	0.1	0.2	4.010	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	34	8	1147	988	0.034	34	32	0.0	0.0	3.744	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	104	26	-	-	-	104	107	0.0	0.0	0.002	A
				3	34	8	-	-	-	34	31	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	201	50	1033	1022	0.197	200	205	0.4	0.3	3.956	A
			2	1	216	54	1033	1022	0.212	217	217	0.4	0.2	5.123	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	137	34	1033	1022	0.134	137	140	0.2	0.1	3.883	A
		2	1	1	216	54	-	-	-	216	216	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	338	85	-	-	-	338	344	0.0	0.0	0.000	A
3	Entry	1	1	1	120	30	777	713	0.168	122	116	0.4	0.2	7.908	A
				2	199	50	777	713	0.279	199	189	0.4	0.4	6.119	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	247	62	777	713	0.347	247	238	0.5	0.4	6.171	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	120	30	-	-	-	120	115	0.0	0.0	0.000	A
				2	447	112	-	-	-	447	427	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:15 - 09:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	86	21	1147	1019	0.084	85	87	0.2	0.1	3.873	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	25	6	1147	1022	0.024	25	28	0.0	0.0	3.486	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	86	21	-	-	-	86	86	0.0	0.0	0.000	A
				3	25	6	-	-	-	25	28	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	162	41	1033	1025	0.158	163	166	0.3	0.1	3.881	A
			2	1	169	42	1033	1024	0.165	171	186	0.2	0.2	4.768	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	126	32	1033	1025	0.123	124	123	0.1	0.2	3.700	A
		2	1	1	169	42	-	-	-	169	186	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	288	72	-	-	-	288	288	0.0	0.0	0.000	A
3	Entry	1	1	1	90	23	777	725	0.124	90	95	0.2	0.2	7.038	A
				2	162	40	777	726	0.223	164	157	0.4	0.2	5.715	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	777	727	0.273	198	187	0.4	0.4	5.643	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	90	23	-	-	-	90	95	0.0	0.0	0.000	A
				2	360	90	-	-	-	360	343	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2022 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A453/EMA Roundabout	Standard Roundabout		1, 2, 3	4.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	289	100.000
2		ONE HOUR	✓	576	100.000
3		ONE HOUR	✓	388	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	224	65
	2	133	0	443
	3	41	347	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

From \ To	1	2	3
1	0	0	0
2	0	0	0
3	0	0	0

Cyclist %

From \ To	1	2	3
1	0	0	0
2	0	0	0
3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.25	4.54	0.4	A	264	396
2	0.32	4.42	0.7	A	538	807
3	0.29	5.58	0.8	A	355	532

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	221	55	258	1361	0.163	221	220	139	0.0	0.3	3.989	A
2	439	110	49	2049	0.214	440	430	430	0.0	0.4	3.894	A
3	287	72	109	1468	0.196	289	287	381	0.0	0.4	5.373	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	256	64	314	1338	0.192	258	262	164	0.3	0.3	4.083	A
2	526	132	58	2003	0.263	528	521	514	0.4	0.6	4.123	A
3	352	88	126	1463	0.241	351	349	460	0.4	0.6	5.362	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	319	80	390	1287	0.248	322	311	187	0.3	0.2	4.354	A
2	649	162	73	2023	0.321	654	641	639	0.6	0.7	4.314	A
3	430	108	147	1480	0.291	430	430	580	0.6	0.8	5.576	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	311	78	372	1264	0.246	311	325	191	0.2	0.4	4.541	A
2	629	157	67	2000	0.315	632	622	616	0.7	0.6	4.423	A
3	414	104	148	1471	0.281	414	417	550	0.8	0.8	5.573	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	254	63	313	1322	0.192	255	264	155	0.4	0.3	4.338	A
2	538	135	55	2001	0.269	542	525	513	0.6	0.4	4.147	A
3	349	87	120	1473	0.237	348	353	477	0.8	0.5	5.396	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	224	56	264	1328	0.169	225	214	137	0.3	0.2	3.904	A
2	448	112	53	2051	0.218	446	439	437	0.4	0.4	4.187	A
3	296	74	104	1521	0.194	297	300	395	0.5	0.4	5.099	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	171	1053	0.163	171	170	0.0	0.2	4.149	A
			2	1, 3	50	1053	0.047	49	50	0.0	0.1	3.392	A
		2	1	(1, 2, 3)	221			221	221	0.0	0.0	0.013	A
	Exit	1	1		139			139	131	0.0	0.0	0.000	A
2	Entry	1	1	3	178	1016	0.175	179	175	0.0	0.1	3.717	A
			2	1, 2, 3	261	1016	0.257	261	255	0.0	0.3	4.016	A
		2	1	(1, 2, 3)	439			439	432	0.0	0.0	0.000	A
	Exit	1	1		430			430	426	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	154	745	0.206	155	155	0.0	0.2	5.512	A
			2	2, 3	134	745	0.179	134	132	0.0	0.2	5.210	A
		2	1	(1, 2, 3)	287			287	288	0.0	0.0	0.000	A
	Exit	1	1		381			381	380	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	199	1033	0.192	200	201	0.2	0.3	4.230	A
			2	1, 3	58	1033	0.056	58	61	0.1	0.0	3.552	A
		2	1	(1, 2, 3)	256			256	262	0.0	0.0	0.011	A
	Exit	1	1		164			164	154	0.0	0.0	0.000	A
2	Entry	1	1	3	216	1013	0.213	216	217	0.1	0.2	3.875	A
			2	1, 2, 3	310	1013	0.306	312	303	0.3	0.4	4.301	A
		2	1	(1, 2, 3)	526			526	521	0.0	0.0	0.000	A
	Exit	1	1		514			514	514	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	192	740	0.260	192	188	0.2	0.3	5.386	A
			2	2, 3	160	740	0.217	159	161	0.2	0.3	5.334	A
		2	1	(1, 2, 3)	352			352	350	0.0	0.0	0.000	A
	Exit	1	1		460			460	465	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	246	1005	0.245	250	240	0.3	0.1	4.437	A
			2	1, 3	73	1005	0.073	73	71	0.0	0.1	3.936	A
		2	1	(1, 2, 3)	319			320	311	0.0	0.0	0.031	A
	Exit	1	1		187			187	195	0.0	0.0	0.000	A
2	Entry	1	1	3	271	1009	0.268	272	270	0.2	0.4	4.114	A
			2	1, 2, 3	378	1009	0.375	382	370	0.4	0.3	4.461	A
		2	1	(1, 2, 3)	649			649	641	0.0	0.0	0.000	A
	Exit	1	1		639			639	624	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	227	733	0.310	226	232	0.3	0.4	5.604	A
			2	2, 3	203	733	0.277	204	198	0.3	0.4	5.542	A
		2	1	(1, 2, 3)	430			430	431	0.0	0.0	0.000	A
	Exit	1	1		580			580	563	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	244	1012	0.242	244	251	0.1	0.4	4.739	A
			2	1, 3	67	1012	0.066	67	73	0.1	0.1	3.761	A
		2	1	(1, 2, 3)	311			311	326	0.0	0.0	0.022	A
	Exit	1	1		191			191	191	0.0	0.0	0.000	A
2	Entry	1	1	3	276	1010	0.273	277	268	0.4	0.3	4.093	A
			2	1, 2, 3	354	1010	0.350	355	354	0.3	0.4	4.674	A
		2	1	(1, 2, 3)	629			629	622	0.0	0.0	0.000	A
	Exit	1	1		616			616	623	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	221	733	0.302	222	221	0.4	0.5	5.815	A
			2	2, 3	193	733	0.263	193	196	0.4	0.4	5.298	A
		2	1	(1, 2, 3)	414			414	417	0.0	0.0	0.000	A
	Exit	1	1		550			550	551	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	199	1033	0.193	201	205	0.4	0.3	4.503	A
			2	1, 3	54	1033	0.052	55	60	0.1	0.1	3.614	A
		2	1	(1, 2, 3)	254			254	264	0.0	0.0	0.036	A
	Exit	1	1		155			155	151	0.0	0.0	0.000	A
2	Entry	1	1	3	228	1014	0.224	230	226	0.3	0.1	3.907	A
			2	1, 2, 3	310	1014	0.306	312	299	0.4	0.3	4.328	A
		2	1	(1, 2, 3)	538			538	524	0.0	0.0	0.000	A
	Exit	1	1		513			513	524	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	181	741	0.244	180	188	0.5	0.4	5.516	A
			2	2, 3	168	741	0.227	168	165	0.4	0.2	5.259	A
		2	1	(1, 2, 3)	349			349	352	0.0	0.0	0.000	A
	Exit	1	1		477			477	468	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	2	172	1051	0.164	172	165	0.3	0.2	4.027	A
			2	1, 3	52	1051	0.049	53	49	0.1	0.0	3.388	A
		2	1	(1, 2, 3)	224			224	213	0.0	0.0	0.024	A
	Exit	1	1		137			137	134	0.0	0.0	0.000	A
2	Entry	1	1	3	191	1015	0.189	189	186	0.1	0.3	3.843	A
			2	1, 2, 3	256	1015	0.253	257	253	0.3	0.2	4.441	A
		2	1	(1, 2, 3)	448			448	440	0.0	0.0	0.000	A
	Exit	1	1		437			437	431	0.0	0.0	0.000	A
3	Entry	1	1	1, 2	163	746	0.219	165	162	0.4	0.2	5.194	A
			2	2, 3	132	746	0.177	132	137	0.2	0.2	4.988	A
		2	1	(1, 2, 3)	296			296	299	0.0	0.0	0.000	A
	Exit	1	1		395			395	387	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	171	43	1147	1054	0.163	171	170	0.0	0.2	4.149	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	50	12	1147	1048	0.048	49	50	0.0	0.1	3.392	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	171	43	-	-	-	171	171	0.0	0.0	0.013	A
				3	50	12	-	-	-	50	51	0.0	0.0	0.012	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	178	44	1033	1016	0.175	179	175	0.0	0.1	3.717	A
			2	1	109	27	1033	1017	0.107	109	101	0.0	0.2	4.426	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	152	38	1033	1016	0.150	152	155	0.0	0.1	3.747	A
		2	1	1	109	27	-	-	-	109	102	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	82	-	-	-	330	330	0.0	0.0	0.000	A
3	Entry	1	1	1	30	8	777	746	0.041	31	31	0.0	0.1	6.035	A
				2	123	31	777	746	0.165	124	124	0.0	0.2	5.383	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	134	33	777	745	0.179	134	132	0.0	0.2	5.210	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	30	8	-	-	-	30	31	0.0	0.0	0.000	A
				2	257	64	-	-	-	257	258	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	1147	1032	0.193	200	201	0.2	0.3	4.230	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	58	14	1147	1037	0.056	58	61	0.1	0.0	3.552	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	-	-	-	199	202	0.0	0.0	0.014	A
				3	58	14	-	-	-	58	61	0.0	0.0	0.000	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	216	54	1033	1013	0.213	216	217	0.1	0.2	3.875	A
			2	1	126	32	1033	1013	0.125	126	117	0.2	0.2	4.928	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	184	46	1033	1013	0.182	185	186	0.1	0.2	3.907	A
		2	1	1	126	32	-	-	-	126	117	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	400	100	-	-	-	400	404	0.0	0.0	0.000	A
3	Entry	1	1	1	37	9	777	741	0.050	37	37	0.1	0.1	6.144	A
				2	155	39	777	740	0.209	155	151	0.2	0.2	5.203	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	160	40	777	739	0.217	159	161	0.2	0.3	5.334	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	37	9	-	-	-	37	37	0.0	0.0	0.000	A
				2	315	79	-	-	-	315	314	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	246	62	1147	1005	0.245	250	240	0.3	0.1	4.437	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	73	18	1147	1006	0.073	73	71	0.0	0.1	3.936	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	246	61	-	-	-	246	240	0.0	0.0	0.039	A
				3	73	18	-	-	-	73	71	0.0	0.0	0.006	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	271	68	1033	1009	0.268	272	270	0.2	0.4	4.114	A
			2	1	145	36	1033	1010	0.144	147	148	0.2	0.2	5.176	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	233	58	1033	1009	0.231	235	222	0.2	0.1	3.984	A
		2	1	1	145	36	-	-	-	145	148	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	503	126	-	-	-	503	493	0.0	0.0	0.000	A
3	Entry	1	1	1	41	10	777	732	0.056	40	46	0.1	0.1	6.336	A
				2	186	47	777	733	0.254	186	186	0.2	0.3	5.420	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	203	51	777	734	0.277	204	198	0.3	0.4	5.542	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	41	10	-	-	-	41	47	0.0	0.0	0.000	A
				2	389	97	-	-	-	389	384	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	244	61	1147	1012	0.241	244	251	0.1	0.4	4.739	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	67	17	1147	1013	0.066	67	73	0.1	0.1	3.761	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	244	61	-	-	-	244	252	0.0	0.0	0.024	A
				3	67	17	-	-	-	67	73	0.0	0.0	0.015	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	276	69	1033	1010	0.273	277	268	0.4	0.3	4.093	A
			2	1	149	37	1033	1011	0.147	148	145	0.2	0.2	5.447	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	205	51	1033	1011	0.203	207	209	0.1	0.1	4.139	A
		2	1	1	149	37	-	-	-	149	145	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	481	120	-	-	-	481	477	0.0	0.0	0.000	A
3	Entry	1	1	1	42	10	777	733	0.057	42	46	0.1	0.1	6.739	A
				2	180	45	777	733	0.245	179	175	0.3	0.4	5.574	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	193	48	777	733	0.263	193	196	0.4	0.4	5.298	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	42	10	-	-	-	42	46	0.0	0.0	0.000	A
				2	373	93	-	-	-	373	371	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

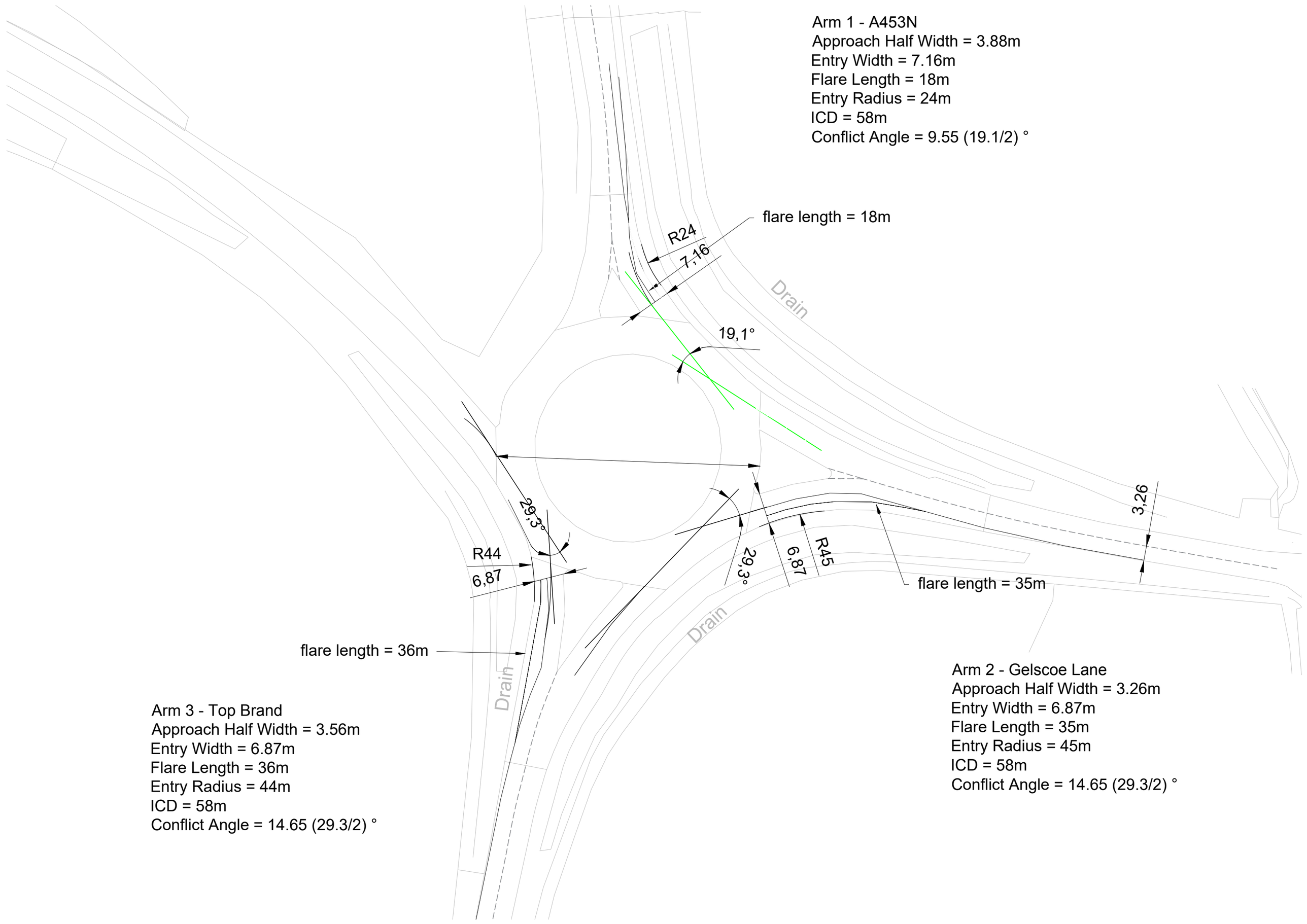
Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	1147	1032	0.193	201	205	0.4	0.3	4.503	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	54	14	1147	1029	0.053	55	60	0.1	0.1	3.614	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	199	50	-	-	-	199	204	0.0	0.0	0.044	A
				3	54	14	-	-	-	54	60	0.0	0.0	0.007	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	228	57	1033	1014	0.225	230	226	0.3	0.1	3.907	A
			2	1	120	30	1033	1014	0.118	120	116	0.2	0.1	4.653	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	191	48	1033	1014	0.188	192	183	0.1	0.2	4.123	A
		2	1	1	120	30	-	-	-	120	116	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	418	105	-	-	-	418	408	0.0	0.0	0.000	A
3	Entry	1	1	1	36	9	777	742	0.049	35	34	0.1	0.1	6.487	A
				2	145	36	777	741	0.195	144	154	0.4	0.3	5.297	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	168	42	777	741	0.227	168	165	0.4	0.2	5.259	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	36	9	-	-	-	36	35	0.0	0.0	0.000	A
				2	313	78	-	-	-	313	318	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:15 - 18:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	172	43	1147	1050	0.164	172	165	0.3	0.2	4.027	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	52	13	1147	1051	0.049	53	49	0.1	0.0	3.388	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	172	43	-	-	-	172	164	0.0	0.0	0.027	A
				3	52	13	-	-	-	52	49	0.0	0.0	0.012	A
2	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	191	48	1033	1015	0.189	189	186	0.1	0.3	3.843	A
			2	1	103	26	1033	1015	0.102	104	101	0.1	0.1	5.202	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	153	38	1033	1015	0.151	153	152	0.2	0.1	3.935	A
		2	1	1	103	26	-	-	-	103	101	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	345	86	-	-	-	345	339	0.0	0.0	0.000	A
3	Entry	1	1	1	32	8	777	748	0.043	33	33	0.1	0.0	5.903	A
				2	131	33	777	747	0.176	132	129	0.3	0.1	5.011	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	132	33	777	746	0.177	132	137	0.2	0.2	4.988	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	32	8	-	-	-	32	33	0.0	0.0	0.000	A
				2	264	66	-	-	-	264	266	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

APPENDIX 4: Junction 11 - A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout Model Outputs

Arm 1 - A453N
Approach Half Width = 3.88m
Entry Width = 7.16m
Flare Length = 18m
Entry Radius = 24m
ICD = 58m
Conflict Angle = 9.55 (19.1/2) °



Arm 3 - Top Brand
Approach Half Width = 3.56m
Entry Width = 6.87m
Flare Length = 36m
Entry Radius = 44m
ICD = 58m
Conflict Angle = 14.65 (29.3/2) °

Arm 2 - Gelscoe Lane
Approach Half Width = 3.26m
Entry Width = 6.87m
Flare Length = 35m
Entry Radius = 45m
ICD = 58m
Conflict Angle = 14.65 (29.3/2) °

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.1.1905
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Filename: A453_Gelscoe Lane_Top Brand roundabout (near A42) (Lane Sim) (Base Only).j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\11. A453_Gelscoe Lane_Top Brand roundabout (near A42)
Report generation date: 05/04/2024 14:13:09

»2022 Base Flows, AM
»2022 Base Flows, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2022 Base Flows									
1 - A453 (N)	D1	0.4	4.39	0.20	A	D2	1.5	6.17	0.47	A
2 - Gelscoe Lane		0.1	4.30	0.05	A		0.1	4.98	0.05	A
3 - Top Brand		0.5	4.93	0.26	A		0.1	4.47	0.08	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	A453 Gelscoe Lane Top Brand roundabout
Location	
Site number	
Date	18/10/2023
Version	
Status	(new file)
Identifier	Aaiza
Client	
Jobnumber	220500
Enumerator	BWB\Aaiza.Shafiq
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Calculate RFCs	Relaxation factor for capacity/RFC runs	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials
Delay	1.00	100000	100000	Calculate for all arms	3.00	-1	3	1	60	✓			2058580669	74

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2022 Base Flows	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2022 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.61	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A453 (N)		
2	Gelscoe Lane		
3	Top Brand		
4	A42		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A453 (N)	3.88	7.16	18.0	24.0	58.0	9.6		
2 - Gelscoe Lane	3.26	6.87	35.0	45.0	58.0	14.7		
3 - Top Brand	3.56	6.87	36.0	44.0	58.0	14.7		
4 - A42								✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A453 (N)	0.633	1946
2 - Gelscoe Lane	0.635	1956
3 - Top Brand	0.643	2002
4 - A42		

The slope and intercept shown above include any corrections and adjustments.

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - A453 (N)	Evenly split	10.00
2 - Gelscoe Lane	Evenly split	10.00
3 - Top Brand	Evenly split	10.00
4 - A42	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - A453 (N)	Entry	1	1	2, 3	✓	4.00			0	99999	
			2	1, 4	✓	4.00			0	99999	
		2	1	(1, 2, 3, 4)		Infinity					
	Exit	1	1			Infinity					
2 - Gelscoe Lane	Entry	1	1	3, 4	✓	5.00			0	99999	
			2	1, 2	✓	5.00			0	99999	
		2	1	(1, 2, 3, 4)		Infinity					
	Exit	1	1			Infinity					
3 - Top Brand	Entry	1	1	1, 4	✓	5.00			0	99999	
			2	2, 3	✓	5.00			0	99999	
		2	1	(1, 2, 3, 4)		Infinity					
	Exit	1	1			Infinity					
4 - A42	Exit	1	1			Infinity					

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - A453 (N)	Entry	1	1	0.316	973
			2	0.316	973
2 - Gelscoe Lane	Entry	1	1	0.317	978
			2	0.317	978
3 - Top Brand	Entry	1	1	0.321	1001
			2	0.321	1001

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A453 (N)	Gelscoe Lane	Top Brand	A42
1 - A453 (N)	1	1		✓	✓	
		2	✓			✓
	2	1	✓	✓	✓	✓
2 - Gelscoe Lane	1	1			✓	✓
		2	✓	✓		
	2	1	✓	✓	✓	✓
3 - Top Brand	1	1	✓			✓
		2		✓	✓	
	2	1	✓	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base Flows	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	246	100.000
2 - Gelscoe Lane		ONE HOUR	✓	55	100.000
3 - Top Brand		ONE HOUR	✓	232	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	43	126	77
	2 - Gelscoe Lane	19	0	12	24
	3 - Top Brand	169	23	0	40
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Cyclist %

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.20	4.39	0.4	A	226	339
2 - Gelscoe Lane	0.05	4.30	0.1	A	50	75
3 - Top Brand	0.26	4.93	0.5	A	212	318
4 - A42						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	183	46	17	1340	0.137	183	183	138	0.0	0.2	4.167	A
2 - Gelscoe Lane	40	10	150	1438	0.028	40	43	50	0.0	0.0	3.905	A
3 - Top Brand	175	44	86	1065	0.164	176	177	104	0.0	0.2	4.354	A
4 - A42			0					107				

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	218	55	22	1364	0.160	217	221	163	0.2	0.2	4.358	A
2 - Gelscoe Lane	47	12	180	1373	0.034	47	48	59	0.0	0.1	3.987	A
3 - Top Brand	200	50	106	1089	0.184	201	210	122	0.2	0.2	4.443	A
4 - A42			0					122				

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	273	68	26	1369	0.199	272	267	209	0.2	0.4	4.387	A
2 - Gelscoe Lane	57	14	222	1360	0.042	58	55	76	0.1	0.0	4.051	A
3 - Top Brand	263	66	133	1028	0.256	264	256	147	0.2	0.5	4.899	A
4 - A42			0					162				

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	265	66	25	1361	0.195	263	267	209	0.4	0.4	4.383	A
2 - Gelscoe Lane	65	16	220	1357	0.048	64	64	69	0.0	0.1	3.953	A
3 - Top Brand	258	64	136	1090	0.237	261	258	148	0.5	0.2	4.925	A
4 - A42			0					162				

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	229	57	22	1380	0.166	229	224	163	0.4	0.2	4.191	A
2 - Gelscoe Lane	52	13	190	1380	0.038	51	51	60	0.1	0.1	4.299	A
3 - Top Brand	204	51	113	1087	0.188	205	209	129	0.2	0.2	4.823	A
4 - A42			0					133				

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	186	47	14	1340	0.139	187	184	140	0.2	0.2	4.206	A
2 - Gelscoe Lane	37	9	156	1344	0.028	37	39	45	0.1	0.1	4.031	A
3 - Top Brand	173	43	89	1089	0.158	171	177	104	0.2	0.2	4.260	A
4 - A42			0					106				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	128	968	0.132	128	127	0.0	0.2	4.367	A
			2	1, 4	56	968	0.057	55	56	0.0	0.1	3.707	A
		2	1	(1, 2, 3, 4)	183			183	184	0.0	0.0	0.002	A
	Exit	1	1		138			138	141	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	29	930	0.031	29	28	0.0	0.0	3.925	A
			2	1, 2	12	930	0.013	11	15	0.0	0.0	3.869	A
		2	1	(1, 2, 3, 4)	40			40	43	0.0	0.0	0.000	A
	Exit	1	1		50			50	53	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	159	973	0.163	159	159	0.0	0.2	4.410	A
			2	2, 3	16	973	0.017	17	18	0.0	0.0	3.838	A
		2	1	(1, 2, 3, 4)	175			175	178	0.0	0.0	0.003	A
	Exit	1	1		104			104	102	0.0	0.0	0.000	A
4 - A42	Exit	1	1		107			107	107	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	148	966	0.153	148	152	0.2	0.1	4.397	A
			2	1, 4	70	966	0.073	70	69	0.1	0.1	4.274	A
		2	1	(1, 2, 3, 4)	218			218	221	0.0	0.0	0.000	A
	Exit	1	1		163			163	169	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	32	921	0.035	32	31	0.0	0.0	4.094	A
			2	1, 2	16	921	0.017	16	16	0.0	0.0	3.783	A
		2	1	(1, 2, 3, 4)	47			47	48	0.0	0.0	0.000	A
	Exit	1	1		59			59	62	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	179	967	0.185	180	188	0.2	0.2	4.515	A
			2	2, 3	21	967	0.022	22	22	0.0	0.0	3.841	A
		2	1	(1, 2, 3, 4)	200			200	210	0.0	0.0	0.000	A
	Exit	1	1		122			122	123	0.0	0.0	0.000	A
4 - A42	Exit	1	1		122			122	124	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	184	965	0.190	184	181	0.1	0.3	4.497	A
			2	1, 4	89	965	0.092	88	86	0.1	0.1	4.155	A
		2	1	(1, 2, 3, 4)	273			273	268	0.0	0.0	0.000	A
	Exit	1	1		209			209	203	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	39	907	0.043	39	38	0.0	0.0	4.131	A
			2	1, 2	18	907	0.019	18	18	0.0	0.0	3.882	A
		2	1	(1, 2, 3, 4)	57			57	55	0.0	0.0	0.000	A
	Exit	1	1		76			76	73	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	237	958	0.247	238	231	0.2	0.5	5.029	A
			2	2, 3	26	958	0.027	26	25	0.0	0.0	3.684	A
		2	1	(1, 2, 3, 4)	263			263	257	0.0	0.0	0.003	A
	Exit	1	1		147			147	146	0.0	0.0	0.000	A
4 - A42	Exit	1	1		162			162	157	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	180	965	0.186	179	183	0.3	0.3	4.536	A
			2	1, 4	85	965	0.088	85	84	0.1	0.1	4.047	A
		2	1	(1, 2, 3, 4)	265			265	266	0.0	0.0	0.000	A
	Exit	1	1		209			209	208	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	42	908	0.047	42	42	0.0	0.1	3.919	A
			2	1, 2	23	908	0.025	22	22	0.0	0.0	4.017	A
		2	1	(1, 2, 3, 4)	65			65	64	0.0	0.0	0.000	A
	Exit	1	1		69			69	71	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	233	957	0.243	236	232	0.5	0.2	5.003	A
			2	2, 3	25	957	0.026	25	26	0.0	0.0	4.174	A
		2	1	(1, 2, 3, 4)	258			258	256	0.0	0.0	0.006	A
	Exit	1	1		148			148	152	0.0	0.0	0.000	A
4 - A42	Exit	1	1		162			162	158	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	159	966	0.164	158	152	0.3	0.2	4.319	A
			2	1, 4	70	966	0.073	70	73	0.1	0.1	3.925	A
		2	1	(1, 2, 3, 4)	229			229	224	0.0	0.0	0.000	A
	Exit	1	1		163			163	169	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	34	917	0.037	33	32	0.1	0.1	4.596	A
			2	1, 2	18	917	0.020	18	19	0.0	0.0	3.792	A
		2	1	(1, 2, 3, 4)	52			52	51	0.0	0.0	0.000	A
	Exit	1	1		60			60	60	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	182	965	0.189	183	186	0.2	0.2	4.906	A
			2	2, 3	22	965	0.023	22	23	0.0	0.0	4.035	A
		2	1	(1, 2, 3, 4)	204			204	209	0.0	0.0	0.015	A
	Exit	1	1		129			129	126	0.0	0.0	0.000	A
4 - A42	Exit	1	1		133			133	130	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	128	969	0.132	129	125	0.2	0.1	4.293	A
			2	1, 4	58	969	0.060	59	59	0.1	0.0	4.023	A
		2	1	(1, 2, 3, 4)	186			186	184	0.0	0.0	0.000	A
	Exit	1	1		140			140	142	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	23	928	0.025	23	25	0.1	0.0	4.008	A
			2	1, 2	14	928	0.015	14	14	0.0	0.0	4.073	A
		2	1	(1, 2, 3, 4)	37			37	39	0.0	0.0	0.000	A
	Exit	1	1		45			45	47	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	158	972	0.163	157	160	0.2	0.2	4.314	A
			2	2, 3	14	972	0.015	14	17	0.0	0.0	3.744	A
		2	1	(1, 2, 3, 4)	173			173	177	0.0	0.0	0.000	A
	Exit	1	1		104			104	104	0.0	0.0	0.000	A
4 - A42	Exit	1	1		106			106	107	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	973	967	0.034	33	35	0.0	0.0	4.284	A
				3	95	24	973	967	0.098	95	92	0.0	0.1	4.399	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	56	14	973	967	0.057	55	56	0.0	0.1	3.707	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	33	8	-	-	-	33	35	0.0	0.0	0.000	A
				3	95	24	-	-	-	95	93	0.0	0.0	0.004	A
				4	56	14	-	-	-	56	56	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	872	828	0.011	9	9	0.0	0.0	3.998	A
				4	19	5	978	932	0.021	19	19	0.0	0.0	3.888	A
			2	1	12	3	951	907	0.013	11	15	0.0	0.0	3.869	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	12	3	-	-	-	12	15	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	-	-	-	9	9	0.0	0.0	0.000	A
				4	19	5	-	-	-	19	19	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	127	32	1001	974	0.130	127	127	0.0	0.2	4.356	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	972	0.033	32	32	0.0	0.0	4.622	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	16	4	987	958	0.017	17	18	0.0	0.0	3.838	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	127	0.0	0.0	0.004	A
				2	16	4	-	-	-	16	18	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	32	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	37	9	973	966	0.038	37	40	0.0	0.0	4.147	A
				3	111	28	973	966	0.115	111	113	0.1	0.1	4.484	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	70	18	973	966	0.073	70	69	0.1	0.1	4.274	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	37	9	-	-	-	37	39	0.0	0.0	0.000	A
				3	111	28	-	-	-	111	113	0.0	0.0	0.000	A
				4	70	18	-	-	-	70	69	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	899	847	0.013	11	11	0.0	0.0	3.907	A
				4	21	5	978	921	0.023	20	21	0.0	0.0	4.190	A
			2	1	16	4	978	919	0.017	16	16	0.0	0.0	3.783	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	16	4	-	-	-	16	16	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	-	-	-	11	11	0.0	0.0	0.000	A
				4	21	5	-	-	-	21	21	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	147	37	1001	967	0.152	147	153	0.2	0.1	4.501	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	966	0.033	32	35	0.0	0.0	4.573	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	21	5	1001	968	0.022	22	22	0.0	0.0	3.841	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	147	37	-	-	-	147	153	0.0	0.0	0.000	A
				2	21	5	-	-	-	21	22	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	35	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	973	966	0.050	50	48	0.0	0.0	4.480	A
				3	135	34	973	965	0.140	134	133	0.1	0.2	4.503	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	89	22	973	965	0.092	88	86	0.1	0.1	4.155	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	49	12	-	-	-	49	48	0.0	0.0	0.000	A
				3	135	34	-	-	-	135	134	0.0	0.0	0.000	A
				4	89	22	-	-	-	89	86	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	938	871	0.015	13	12	0.0	0.0	3.703	A
				4	26	7	978	907	0.029	27	25	0.0	0.0	4.339	A
			2	1	18	4	925	862	0.021	18	18	0.0	0.0	3.882	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	18	4	-	-	-	18	18	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	12	0.0	0.0	0.000	A
				4	26	7	-	-	-	26	25	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	190	48	1001	959	0.199	191	185	0.1	0.4	5.094	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	46	12	1001	960	0.048	47	46	0.0	0.1	4.766	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	26	6	1001	958	0.027	26	25	0.0	0.0	3.684	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	190	48	-	-	-	190	186	0.0	0.0	0.001	A
				2	26	6	-	-	-	26	25	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	46	12	-	-	-	46	46	0.0	0.0	0.011	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	43	11	973	965	0.045	43	45	0.0	0.0	4.557	A
				3	137	34	973	965	0.142	135	138	0.2	0.3	4.529	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	85	21	973	965	0.088	85	84	0.1	0.1	4.047	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	43	11	-	-	-	43	45	0.0	0.0	0.000	A
				3	137	34	-	-	-	137	138	0.0	0.0	0.001	A
				4	85	21	-	-	-	85	83	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	912	847	0.016	13	14	0.0	0.0	4.222	A
				4	29	7	978	907	0.032	29	28	0.0	0.0	3.769	A
			2	1	23	6	978	905	0.025	22	22	0.0	0.0	4.017	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	23	6	-	-	-	23	22	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	14	0.0	0.0	0.000	A
				4	29	7	-	-	-	29	28	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	185	46	1001	957	0.193	187	185	0.4	0.2	4.999	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	1001	956	0.050	49	46	0.1	0.0	5.018	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	25	6	1001	958	0.026	25	26	0.0	0.0	4.174	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	185	46	-	-	-	185	185	0.0	0.0	0.008	A
				2	25	6	-	-	-	25	26	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	48	12	-	-	-	48	46	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	973	965	0.039	38	36	0.0	0.0	4.203	A
				3	120	30	973	966	0.125	120	115	0.3	0.1	4.356	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	70	18	973	966	0.073	70	73	0.1	0.1	3.925	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	38	10	-	-	-	38	36	0.0	0.0	0.000	A
				3	120	30	-	-	-	120	115	0.0	0.0	0.000	A
				4	70	18	-	-	-	70	72	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	899	844	0.011	9	10	0.0	0.0	4.675	A
				4	25	6	978	918	0.027	24	22	0.0	0.1	4.559	A
			2	1	18	5	978	915	0.020	18	19	0.0	0.0	3.792	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	18	5	-	-	-	18	19	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	-	-	-	9	10	0.0	0.0	0.000	A
				4	25	6	-	-	-	25	22	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	144	36	1001	964	0.149	145	150	0.2	0.1	4.860	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	38	10	1001	964	0.040	38	36	0.0	0.1	5.097	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	22	6	1001	964	0.023	22	23	0.0	0.0	4.035	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	144	36	-	-	-	144	150	0.0	0.0	0.021	A
				2	22	6	-	-	-	22	24	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	38	10	-	-	-	38	36	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	31	8	973	968	0.032	31	30	0.0	0.0	4.374	A
				3	98	24	973	969	0.101	97	95	0.1	0.1	4.266	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	58	15	973	969	0.060	59	59	0.1	0.0	4.023	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	31	8	-	-	-	31	30	0.0	0.0	0.000	A
				3	98	24	-	-	-	98	95	0.0	0.0	0.000	A
				4	58	15	-	-	-	58	59	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	7	2	872	825	0.008	7	8	0.0	0.0	4.026	A
				4	17	4	978	925	0.018	17	17	0.1	0.0	3.999	A
			2	1	14	4	951	903	0.016	14	14	0.0	0.0	4.073	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	14	4	-	-	-	14	14	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	7	2	-	-	-	7	8	0.0	0.0	0.000	A
				4	17	4	-	-	-	17	17	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	127	32	1001	972	0.130	126	128	0.1	0.2	4.301	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	1001	971	0.033	31	31	0.1	0.1	4.369	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	14	4	1001	973	0.015	14	17	0.0	0.0	3.744	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	127	32	-	-	-	127	129	0.0	0.0	0.000	A
				2	14	4	-	-	-	14	17	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	32	8	-	-	-	32	31	0.0	0.0	0.000	A

2022 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Gelscoe Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Top Brand - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.95	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base Flows	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A453 (N)		ONE HOUR	✓	672	100.000
2 - Gelscoe Lane		ONE HOUR	✓	55	100.000
3 - Top Brand		ONE HOUR	✓	65	100.000
4 - A42					

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	93	273	306
	2 - Gelscoe Lane	23	0	13	19
	3 - Top Brand	56	7	0	2
	4 - A42	0	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Cyclist %

		To			
		1 - A453 (N)	2 - Gelscoe Lane	3 - Top Brand	4 - A42
From	1 - A453 (N)	0	0	0	0
	2 - Gelscoe Lane	0	0	0	0
	3 - Top Brand	0	0	0	0
	4 - A42	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A453 (N)	0.47	6.17	1.5	A	610	914
2 - Gelscoe Lane	0.05	4.98	0.1	A	50	76
3 - Top Brand	0.08	4.47	0.1	A	59	88
4 - A42						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	505	126	4	1547	0.326	507	503	58	0.0	0.7	5.111	A
2 - Gelscoe Lane	43	11	437	1435	0.030	43	41	74	0.0	0.0	4.736	A
3 - Top Brand	48	12	260	1030	0.046	47	53	220	0.0	0.1	4.216	A
4 - A42			0					245				

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	603	151	6	1513	0.398	599	592	67	0.7	1.1	5.290	A
2 - Gelscoe Lane	47	12	516	1361	0.035	47	51	88	0.0	0.1	4.493	A
3 - Top Brand	57	14	309	1013	0.057	56	58	254	0.1	0.1	4.213	A
4 - A42			0					292				

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	723	181	8	1560	0.463	722	729	90	1.1	0.9	6.052	A
2 - Gelscoe Lane	62	15	626	1255	0.049	62	61	104	0.1	0.1	4.975	A
3 - Top Brand	73	18	372	965	0.075	73	75	316	0.1	0.1	4.176	A
4 - A42			0					347				

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	746	187	8	1580	0.472	743	737	83	0.9	1.5	6.172	A
2 - Gelscoe Lane	59	15	637	1228	0.048	59	59	113	0.1	0.1	4.734	A
3 - Top Brand	68	17	374	976	0.070	69	73	321	0.1	0.0	4.474	A
4 - A42			0					353				

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	588	147	5	1531	0.384	588	608	71	1.5	0.8	5.359	A
2 - Gelscoe Lane	50	12	504	1286	0.039	50	50	89	0.1	0.1	4.748	A
3 - Top Brand	56	14	305	992	0.057	56	58	250	0.0	0.1	4.412	A
4 - A42			0					284				

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	493	123	4	1581	0.312	493	494	61	0.8	0.7	4.911	A
2 - Gelscoe Lane	42	11	423	1391	0.030	42	42	74	0.1	0.1	4.548	A
3 - Top Brand	50	12	248	1030	0.048	50	49	217	0.1	0.0	3.964	A
4 - A42			0					233				

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	275	972	0.283	277	276	0.0	0.4	5.081	A
			2	1, 4	230	972	0.236	230	227	0.0	0.3	5.066	A
		2	1	(1, 2, 3, 4)	505			505	506	0.0	0.0	0.038	A
	Exit	1	1		58			58	63	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	25	839	0.030	25	24	0.0	0.0	4.728	A
			2	1, 2	17	839	0.021	17	17	0.0	0.0	4.748	A
		2	1	(1, 2, 3, 4)	43			43	42	0.0	0.0	0.000	A
	Exit	1	1		74			74	77	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	44	917	0.047	43	48	0.0	0.1	4.140	A
			2	2, 3	4	917	0.004	4	5	0.0	0.0	4.903	A
		2	1	(1, 2, 3, 4)	48			48	53	0.0	0.0	0.000	A
	Exit	1	1		220			220	216	0.0	0.0	0.000	A
4 - A42	Exit	1	1		245			245	243	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	325	971	0.335	324	319	0.4	0.5	5.339	A
			2	1, 4	277	971	0.286	275	274	0.3	0.6	5.080	A
		2	1	(1, 2, 3, 4)	603			602	594	0.0	0.0	0.070	A
	Exit	1	1		67			67	73	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	29	814	0.036	29	30	0.0	0.1	4.500	A
			2	1, 2	18	814	0.022	18	21	0.0	0.0	4.485	A
		2	1	(1, 2, 3, 4)	47			47	51	0.0	0.0	0.000	A
	Exit	1	1		88			88	90	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	51	902	0.057	50	53	0.1	0.1	4.272	A
			2	2, 3	6	902	0.007	6	5	0.0	0.0	3.573	A
		2	1	(1, 2, 3, 4)	57			57	58	0.0	0.0	0.000	A
	Exit	1	1		254			254	246	0.0	0.0	0.000	A
4 - A42	Exit	1	1		292			292	293	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	399	971	0.411	398	395	0.5	0.6	6.057	A
			2	1, 4	324	971	0.333	324	334	0.6	0.3	5.645	A
		2	1	(1, 2, 3, 4)	723			723	728	0.0	0.0	0.185	A
	Exit	1	1		90			90	91	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	35	779	0.045	35	33	0.1	0.1	5.052	A
			2	1, 2	27	779	0.035	27	27	0.0	0.1	4.882	A
		2	1	(1, 2, 3, 4)	62			62	61	0.0	0.0	0.000	A
	Exit	1	1		104			104	106	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	65	881	0.074	65	66	0.1	0.0	4.226	A
			2	2, 3	8	881	0.009	8	9	0.0	0.0	3.791	A
		2	1	(1, 2, 3, 4)	73			73	75	0.0	0.0	0.000	A
	Exit	1	1		316			316	310	0.0	0.0	0.000	A
4 - A42	Exit	1	1		347			347	357	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	417	971	0.429	414	408	0.6	0.8	6.316	A
			2	1, 4	331	971	0.341	328	329	0.3	0.7	5.395	A
		2	1	(1, 2, 3, 4)	746			747	740	0.0	0.0	0.268	A
	Exit	1	1		83			83	87	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	35	776	0.046	36	35	0.1	0.0	4.844	A
			2	1, 2	23	776	0.030	23	24	0.1	0.0	4.573	A
		2	1	(1, 2, 3, 4)	59			59	59	0.0	0.0	0.000	A
	Exit	1	1		113			113	115	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	61	881	0.069	62	65	0.0	0.0	4.578	A
			2	2, 3	8	881	0.009	8	8	0.0	0.0	3.619	A
		2	1	(1, 2, 3, 4)	68			68	73	0.0	0.0	0.000	A
	Exit	1	1		321			321	314	0.0	0.0	0.000	A
4 - A42	Exit	1	1		353			353	355	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	322	971	0.331	321	331	0.8	0.5	5.401	A
			2	1, 4	267	971	0.275	267	277	0.7	0.3	5.133	A
		2	1	(1, 2, 3, 4)	588			588	605	0.0	0.0	0.080	A
	Exit	1	1		71			71	73	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	28	818	0.034	28	28	0.0	0.0	4.710	A
			2	1, 2	22	818	0.026	22	22	0.0	0.1	4.798	A
		2	1	(1, 2, 3, 4)	50			50	50	0.0	0.0	0.000	A
	Exit	1	1		89			89	91	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	51	903	0.056	50	53	0.0	0.1	4.448	A
			2	2, 3	5	903	0.006	5	5	0.0	0.0	4.069	A
		2	1	(1, 2, 3, 4)	56			56	58	0.0	0.0	0.000	A
	Exit	1	1		250			250	257	0.0	0.0	0.000	A
4 - A42	Exit	1	1		284			284	295	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	2, 3	278	972	0.286	277	277	0.5	0.4	5.006	A
			2	1, 4	214	972	0.221	216	217	0.3	0.3	4.777	A
		2	1	(1, 2, 3, 4)	493			493	494	0.0	0.0	0.006	A
	Exit	1	1		61			61	60	0.0	0.0	0.000	A
2 - Gelscoe Lane	Entry	1	1	3, 4	25	844	0.030	25	25	0.0	0.0	4.478	A
			2	1, 2	17	844	0.020	17	17	0.1	0.0	4.650	A
		2	1	(1, 2, 3, 4)	42			42	42	0.0	0.0	0.000	A
	Exit	1	1		74			74	75	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1, 4	46	921	0.050	46	45	0.1	0.0	3.950	A
			2	2, 3	4	921	0.004	4	4	0.0	0.0	4.111	A
		2	1	(1, 2, 3, 4)	50			50	49	0.0	0.0	0.000	A
	Exit	1	1		217			217	216	0.0	0.0	0.000	A
4 - A42	Exit	1	1		233			233	234	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	973	971	0.071	70	71	0.0	0.1	4.938	A
				3	206	52	973	972	0.212	207	204	0.0	0.3	5.130	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	230	57	973	972	0.236	230	227	0.0	0.3	5.066	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	69	17	-	-	-	69	72	0.0	0.0	0.046	A
				3	206	52	-	-	-	206	205	0.0	0.0	0.033	A
				4	230	57	-	-	-	230	229	0.0	0.0	0.039	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	965	831	0.015	12	11	0.0	0.0	4.952	A
				4	13	3	965	822	0.016	13	13	0.0	0.0	4.533	A
			2	1	17	4	952	818	0.021	17	17	0.0	0.0	4.748	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	17	4	-	-	-	17	17	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	11	0.0	0.0	0.000	A
				4	13	3	-	-	-	13	13	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	41	10	1001	917	0.045	41	46	0.0	0.1	4.102	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.52	360	331	0.006	2	2	0.0	0.0	4.972	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	4	1	694	639	0.006	4	5	0.0	0.0	4.903	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	41	10	-	-	-	41	46	0.0	0.0	0.000	A
				2	4	1	-	-	-	4	5	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.52	-	-	-	2	2	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	82	21	973	971	0.085	82	85	0.1	0.2	5.300	A
				3	243	61	973	971	0.250	242	234	0.3	0.3	5.354	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	277	69	973	971	0.285	275	274	0.3	0.6	5.080	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	82	21	-	-	-	82	85	0.0	0.0	0.117	A
				3	243	61	-	-	-	243	234	0.0	0.0	0.068	A
				4	277	69	-	-	-	277	275	0.0	0.0	0.057	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	952	795	0.016	12	12	0.0	0.0	4.451	A
				4	16	4	939	785	0.021	16	17	0.0	0.1	4.534	A
			2	1	18	4	978	819	0.022	18	21	0.0	0.0	4.485	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	18	4	-	-	-	18	21	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	12	0.0	0.0	0.000	A
				4	16	4	-	-	-	16	17	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	50	12	1001	902	0.055	48	51	0.1	0.1	4.320	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.36	440	398	0.004	1	2	0.0	0.0	3.117	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	6	2	761	687	0.009	6	5	0.0	0.0	3.573	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	50	12	-	-	-	50	51	0.0	0.0	0.000	A
				2	6	2	-	-	-	6	5	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.36	-	-	-	1	2	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	96	24	973	971	0.098	96	97	0.2	0.1	6.143	A
				3	304	76	973	971	0.313	302	297	0.3	0.5	6.029	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	324	81	973	971	0.333	324	334	0.6	0.3	5.645	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	96	24	-	-	-	96	97	0.0	0.0	0.225	A
				3	304	76	-	-	-	304	298	0.0	0.0	0.164	A
				4	324	81	-	-	-	324	333	0.0	0.0	0.191	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	939	749	0.018	14	13	0.0	0.0	5.069	A
				4	21	5	965	769	0.027	21	20	0.1	0.0	5.041	A
			2	1	27	7	978	776	0.035	27	27	0.0	0.1	4.882	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	27	7	-	-	-	27	27	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	3	-	-	-	14	13	0.0	0.0	0.000	A
				4	21	5	-	-	-	21	20	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	63	16	1001	880	0.072	63	64	0.1	0.0	4.229	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.44	440	388	0.005	2	2	0.0	0.0	4.138	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	894	789	0.010	8	9	0.0	0.0	3.791	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	63	16	-	-	-	63	64	0.0	0.0	0.000	A
				2	8	2	-	-	-	8	9	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.44	-	-	-	2	2	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	108	27	973	971	0.111	106	107	0.1	0.4	6.420	A
				3	309	77	973	971	0.318	308	301	0.5	0.5	6.278	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	331	83	973	971	0.341	328	329	0.3	0.7	5.395	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	107	27	-	-	-	108	108	0.0	0.0	0.290	A
				3	309	77	-	-	-	309	301	0.0	0.0	0.306	A
				4	330	83	-	-	-	331	331	0.0	0.0	0.225	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	952	750	0.018	13	13	0.0	0.0	4.655	A
				4	22	6	978	774	0.029	23	23	0.0	0.0	4.949	A
			2	1	23	6	978	778	0.030	23	24	0.1	0.0	4.573	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	23	6	-	-	-	23	24	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	13	0.0	0.0	0.000	A
				4	22	6	-	-	-	22	23	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	58	15	1001	880	0.066	59	62	0.0	0.0	4.562	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.56	440	385	0.006	2	2	0.0	0.0	4.986	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	867	766	0.010	8	8	0.0	0.0	3.619	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	58	15	-	-	-	58	62	0.0	0.0	0.000	A
				2	8	2	-	-	-	8	8	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.56	-	-	-	2	2	0.0	0.0	0.000	A

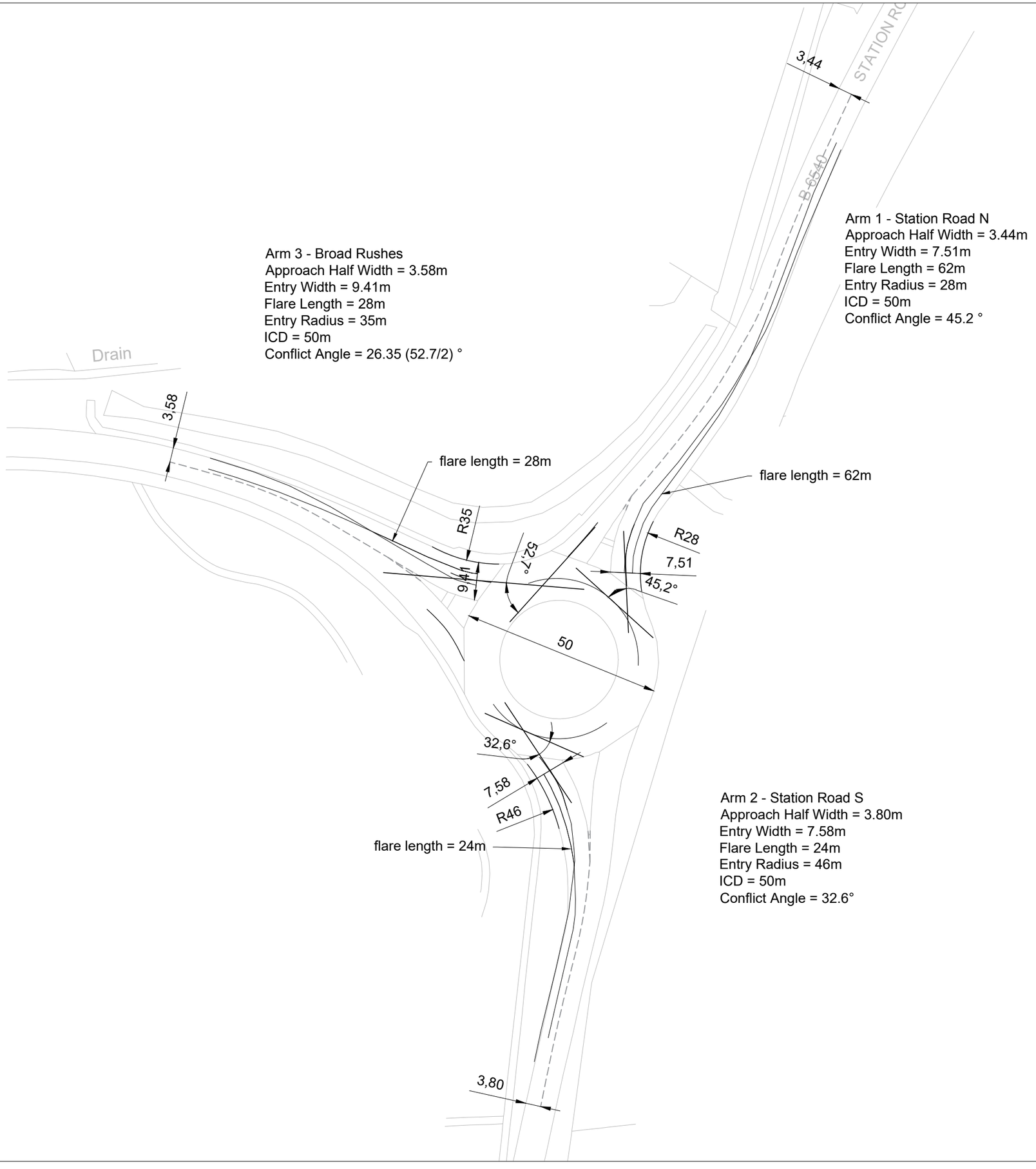
17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	84	21	973	971	0.087	84	85	0.4	0.1	5.205	A
				3	237	59	973	971	0.244	237	246	0.5	0.4	5.469	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	267	67	973	971	0.275	267	277	0.7	0.3	5.133	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	84	21	-	-	-	84	84	0.0	0.0	0.100	A
				3	237	59	-	-	-	237	245	0.0	0.0	0.104	A
				4	267	67	-	-	-	267	275	0.0	0.0	0.053	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	939	777	0.017	13	12	0.0	0.0	4.847	A
				4	15	4	978	811	0.019	15	16	0.0	0.0	4.612	A
			2	1	22	5	978	816	0.026	22	22	0.0	0.1	4.798	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	22	5	-	-	-	22	22	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	13	3	-	-	-	13	12	0.0	0.0	0.000	A
				4	15	4	-	-	-	15	17	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	50	12	1001	905	0.055	49	51	0.0	0.1	4.445	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.28	320	287	0.004	1	2	0.0	0.0	4.544	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	5	1	734	658	0.008	5	5	0.0	0.0	4.069	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	50	12	-	-	-	50	51	0.0	0.0	0.000	A
				2	5	1	-	-	-	5	5	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	1	0.28	-	-	-	1	2	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A453 (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	70	18	973	972	0.072	70	71	0.1	0.1	4.923	A
				3	208	52	973	972	0.214	207	206	0.4	0.3	5.035	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	214	54	973	972	0.221	216	217	0.3	0.3	4.777	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	70	18	-	-	-	70	71	0.0	0.0	0.002	A
				3	208	52	-	-	-	208	206	0.0	0.0	0.007	A
				4	214	54	-	-	-	214	217	0.0	0.0	0.006	A
2 - Gelscoe Lane	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	3	861	740	0.014	10	10	0.0	0.0	4.421	A
				4	15	4	926	796	0.019	15	16	0.0	0.0	4.513	A
			2	1	17	4	939	811	0.021	17	17	0.1	0.0	4.650	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	17	4	-	-	-	17	17	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	10	3	-	-	-	10	9	0.0	0.0	0.000	A
				4	15	4	-	-	-	15	16	0.0	0.0	0.000	A
3 - Top Brand	Entry	1	1	1	44	11	1001	918	0.048	44	43	0.1	0.0	3.946	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.40	320	294	0.005	2	2	0.0	0.0	4.055	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	4	1	681	628	0.006	4	4	0.0	0.0	4.111	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	44	11	-	-	-	44	43	0.0	0.0	0.000	A
				2	4	1	-	-	-	4	4	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				4	2	0.40	-	-	-	2	2	0.0	0.0	0.000	A

APPENDIX 5: Junction 15 - Station Road/Broad Rushes Roundabout Model Outputs


STATION RO
3,44
B 6540
Arm 1 - Station Road N
Approach Half Width = 3.44m
Entry Width = 7.51m
Flare Length = 62m
Entry Radius = 28m
ICD = 50m
Conflict Angle = 45.2 °
Arm 3 - Broad Rushes
Approach Half Width = 3.58m
Entry Width = 9.41m
Flare Length = 28m
Entry Radius = 35m
ICD = 50m
Conflict Angle = 26.35 (52.7/2) °
Drain
3,58
flare length = 28m
R35
52,7°
9,41
flare length = 62m
R28
7,51
45,2°
50
32,6°
7,58
R46
flare length = 24m
3,80
Arm 2 - Station Road S
Approach Half Width = 3.80m
Entry Width = 7.58m
Flare Length = 24m
Entry Radius = 46m
ICD = 50m
Conflict Angle = 32.6°

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.1.1905
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

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Filename: Station Road_Broad Rushes roundabout (LANE SIM) (Base Only).j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\DesignAndCalculations\T&I Planning\Traffic Models\15. Station Road_Broad Rushes roundabout (Castle Donington)
Report generation date: 05/04/2024 14:20:26

»2023 base, AM
»2023 base, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023 base									
1 - Station Road (N)	D1	2.9	8.04	0.67	A	D2	2.5	7.05	0.60	A
2 - Station Road (S)		0.7	6.65	0.42	A		2.8	13.04	0.73	B
3 - Broad Rushes		1.2	9.62	0.56	A		3.1	17.25	0.74	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	Station Road_Broad Rushes roundabout
Location	
Site number	Junction 15
Date	18/10/2023
Version	
Status	(new file)
Identifier	Aaiza
Client	
Jobnumber	220500
Enumerator	BWB\Aaiza.Shafiq
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Calculate RFCs	Relaxation factor for capacity/RFC runs	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials
Delay	1.00	100000	100000	Calculate for all arms	3.00	-1	3	1	60	✓			429421701	85

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023 base	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2023 base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Station Road (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.12	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Station Road (N)		
2	Station Road (S)		
3	Broad Rushes		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Station Road (N)	3.44	7.51	62.0	28.0	50.0	45.2		
2 - Station Road (S)	3.58	9.41	28.0	35.0	50.0	26.4		
3 - Broad Rushes	3.80	7.58	24.0	46.0	50.0	32.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Station Road (N)	0.651	1982
2 - Station Road (S)	0.716	2217
3 - Broad Rushes	0.661	1949

The slope and intercept shown above include any corrections and adjustments.

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Station Road (N)	Direct		100

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - Station Road (N)	Evenly split	10.00
2 - Station Road (S)	Evenly split	10.00
3 - Broad Rushes	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - Station Road (N)	Entry	1	1	2	✓	7.00			0	99999	
			2	1, 3	✓	7.00			0	99999	
		2	1	(1, 3, 2)		Infinity					
	Exit	1	1			Infinity					
2 - Station Road (S)	Entry	1	1	3	✓	5.00			0	99999	
			2	1, 2	✓	5.00			0	99999	
		2	1	(1, 3, 2)		Infinity					
	Exit	1	1			Infinity					
3 - Broad Rushes	Entry	1	1	1	✓	7.00			0	99999	
			2	3, 2	✓	7.00			0	99999	
		2	1	(1, 3, 2)		Infinity					
	Exit	1	1			Infinity					

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - Station Road (N)	Entry	1	1	0.325	991
			2	0.325	991
2 - Station Road (S)	Entry	1	1	0.358	1108
			2	0.358	1108
3 - Broad Rushes	Entry	1	1	0.330	974
			2	0.330	974

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Station Road (N)	Broad Rushes	Station Road (S)
1 - Station Road (N)	1	1			✓
		2	✓	✓	
	2	1	✓	✓	✓
3 - Broad Rushes	1	1	✓		
		2		✓	✓
	2	1	✓	✓	✓
2 - Station Road (S)	1	1		✓	
		2	✓		✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 base	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Station Road (N)		ONE HOUR	✓	1126	100.000
2 - Station Road (S)		ONE HOUR	✓	371	100.000
3 - Broad Rushes		ONE HOUR	✓	426	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	626	500
	2 - Station Road (S)	349	0	22
	3 - Broad Rushes	414	12	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	0	0
	2 - Station Road (S)	0	0	0
	3 - Broad Rushes	0	0	0

Cyclist %

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	0	0
	2 - Station Road (S)	0	0	0
	3 - Broad Rushes	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Station Road (N)	0.67	8.04	2.9	A	1029	1543
2 - Station Road (S)	0.42	6.65	0.7	A	340	509
3 - Broad Rushes	0.56	9.62	1.2	A	390	585

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	851	213	11	1841	0.462	852	857	575	0.0	1.4	5.587	A
2 - Station Road (S)	280	70	377	1049	0.267	280	278	486	0.0	0.4	5.078	A
3 - Broad Rushes	326	81	261	946	0.344	325	319	396	0.0	0.5	6.140	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1001	250	10	1829	0.547	1001	1019	694	1.4	2.0	6.390	A
2 - Station Road (S)	343	86	443	1002	0.342	345	337	568	0.4	0.5	5.512	A
3 - Broad Rushes	383	96	325	880	0.436	380	381	463	0.5	1.0	7.013	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1223	306	14	1813	0.674	1218	1223	833	2.0	2.8	8.036	A
2 - Station Road (S)	405	101	547	973	0.417	406	397	685	0.5	0.7	6.646	A
3 - Broad Rushes	462	116	382	832	0.556	465	465	571	1.0	1.0	8.859	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1227	307	15	1846	0.665	1221	1234	854	2.8	2.9	8.010	A
2 - Station Road (S)	407	102	536	974	0.418	411	410	700	0.7	0.7	6.647	A
3 - Broad Rushes	476	119	386	897	0.531	483	475	561	1.0	1.2	9.625	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1013	253	11	1866	0.543	1010	1017	684	2.9	1.9	6.325	A
2 - Station Road (S)	330	83	461	992	0.333	331	331	560	0.7	0.4	5.546	A
3 - Broad Rushes	381	95	312	919	0.414	383	392	479	1.2	0.7	7.176	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	857	214	8	1841	0.466	859	849	560	1.9	1.3	5.674	A
2 - Station Road (S)	272	68	372	1031	0.264	271	277	495	0.4	0.5	5.048	A
3 - Broad Rushes	311	78	256	916	0.339	311	315	387	0.7	0.6	6.214	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	477	1087	0.439	475	477	0.0	1.0	6.119	A
			2	1, 3	374	1087	0.344	377	380	0.0	0.4	4.903	A
		2	1	(1, 3, 2)	851			851	863	0.0	0.0	0.006	A
	Exit	1	1		575			575	569	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	19	974	0.020	19	18	0.0	0.0	4.041	A
			2	1, 2	261	974	0.268	261	260	0.0	0.3	5.149	A
		2	1	(1, 3, 2)	280			280	280	0.0	0.0	0.002	A
	Exit	1	1		486			486	487	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	315	888	0.355	314	309	0.0	0.5	6.205	A
			2	3, 2	10	888	0.012	11	10	0.0	0.0	4.099	A
		2	1	(1, 3, 2)	326			326	321	0.0	0.0	0.000	A
	Exit	1	1		396			396	398	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	558	1087	0.513	558	568	1.0	1.1	6.952	A
			2	1, 3	444	1087	0.408	443	451	0.4	0.9	5.557	A
		2	1	(1, 3, 2)	1001			1002	1022	0.0	0.0	0.057	A
	Exit	1	1		694			694	687	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	19	950	0.021	20	20	0.0	0.0	4.070	A
			2	1, 2	324	950	0.341	325	317	0.3	0.5	5.589	A
		2	1	(1, 3, 2)	343			343	337	0.0	0.0	0.013	A
	Exit	1	1		568			568	579	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	373	867	0.430	370	370	0.5	1.0	7.087	A
			2	3, 2	10	867	0.012	10	11	0.0	0.0	4.328	A
		2	1	(1, 3, 2)	383			383	383	0.0	0.0	0.002	A
	Exit	1	1		463			463	471	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	674	1086	0.620	671	678	1.1	1.4	8.497	A
			2	1, 3	548	1086	0.505	547	545	0.9	1.2	6.663	A
		2	1	(1, 3, 2)	1223			1222	1225	0.0	0.2	0.348	A
	Exit	1	1		833			833	825	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	25	913	0.027	24	24	0.0	0.0	4.131	A
			2	1, 2	381	913	0.417	382	373	0.5	0.7	6.674	A
		2	1	(1, 3, 2)	405			405	398	0.0	0.0	0.128	A
	Exit	1	1		685			685	691	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	450	848	0.530	452	452	1.0	1.0	8.859	A
			2	3, 2	13	848	0.016	14	13	0.0	0.0	4.700	A
		2	1	(1, 3, 2)	462			463	465	0.0	0.0	0.119	A
	Exit	1	1		571			571	569	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	690	1086	0.635	685	686	1.4	1.8	8.641	A
			2	1, 3	538	1086	0.495	536	548	1.2	1.0	6.341	A
		2	1	(1, 3, 2)	1227			1228	1234	0.2	0.1	0.395	A
	Exit	1	1		854			854	846	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	25	917	0.027	25	26	0.0	0.0	4.297	A
			2	1, 2	382	917	0.417	386	384	0.7	0.7	6.753	A
		2	1	(1, 3, 2)	407			407	410	0.0	0.0	0.049	A
	Exit	1	1		700			700	699	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	463	847	0.547	468	462	1.0	1.2	9.546	A
			2	3, 2	15	847	0.017	15	13	0.0	0.0	4.143	A
		2	1	(1, 3, 2)	476			477	476	0.0	0.0	0.228	A
	Exit	1	1		561			561	574	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	549	1087	0.505	549	556	1.8	1.0	6.500	A
			2	1, 3	464	1087	0.427	461	461	1.0	0.9	5.909	A
		2	1	(1, 3, 2)	1013			1013	1013	0.1	0.0	0.096	A
	Exit	1	1		684			684	693	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	18	944	0.019	18	19	0.0	0.0	3.589	A
			2	1, 2	312	944	0.330	312	312	0.7	0.4	5.657	A
		2	1	(1, 3, 2)	330			330	330	0.0	0.0	0.009	A
	Exit	1	1		560			560	567	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	370	871	0.425	372	381	1.2	0.7	7.244	A
			2	3, 2	11	871	0.012	11	11	0.0	0.0	4.027	A
		2	1	(1, 3, 2)	381			381	389	0.0	0.0	0.021	A
	Exit	1	1		479			479	479	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	485	1088	0.446	487	476	1.0	0.7	6.032	A
			2	1, 3	372	1088	0.342	372	373	0.9	0.5	5.158	A
		2	1	(1, 3, 2)	857			857	847	0.0	0.0	0.027	A
	Exit	1	1		560			560	568	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	15	975	0.015	15	16	0.0	0.0	3.824	A
			2	1, 2	257	975	0.264	256	261	0.4	0.5	5.111	A
		2	1	(1, 3, 2)	272			272	277	0.0	0.0	0.010	A
	Exit	1	1		495			495	484	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	303	890	0.340	303	307	0.7	0.6	6.271	A
			2	3, 2	8	890	0.009	8	8	0.0	0.0	4.018	A
		2	1	(1, 3, 2)	311			311	315	0.0	0.0	0.001	A
	Exit	1	1		387			387	389	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	991	1087	0.439	475	477	0.0	1.0	6.119	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	374	93	991	1087	0.344	377	380	0.0	0.4	4.903	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	-	-	-	477	481	0.0	0.0	0.007	A
				3	374	93	-	-	-	374	382	0.0	0.0	0.005	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	1095	961	0.020	19	18	0.0	0.0	4.041	A
			2	1	261	65	1108	973	0.268	261	260	0.0	0.3	5.149	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	261	65	-	-	-	261	261	0.0	0.0	0.002	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	-	-	-	19	18	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	315	79	974	889	0.355	314	309	0.0	0.5	6.205	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	10	3	905	825	0.012	11	10	0.0	0.0	4.099	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	315	79	-	-	-	315	311	0.0	0.0	0.000	A
				2	10	3	-	-	-	10	10	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	558	139	991	1087	0.513	558	568	1.0	1.1	6.952	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	444	111	991	1087	0.408	443	451	0.4	0.9	5.557	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	557	139	-	-	-	558	569	0.0	0.0	0.063	A
				3	444	111	-	-	-	444	453	0.0	0.0	0.049	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	1095	937	0.021	20	20	0.0	0.0	4.070	A
			2	1	324	81	1108	949	0.341	325	317	0.3	0.5	5.589	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	324	81	-	-	-	324	317	0.0	0.0	0.014	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	19	5	-	-	-	19	20	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	373	93	974	867	0.430	370	370	0.5	1.0	7.087	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	10	3	905	811	0.013	10	11	0.0	0.0	4.328	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	373	93	-	-	-	373	372	0.0	0.0	0.002	A
				2	10	3	-	-	-	10	11	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	674	168	991	1086	0.620	671	678	1.1	1.4	8.497	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	548	137	991	1086	0.505	547	545	0.9	1.2	6.663	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	674	168	-	-	-	674	679	0.0	0.1	0.363	A
				3	549	137	-	-	-	548	546	0.0	0.1	0.331	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	25	6	1095	899	0.027	24	24	0.0	0.0	4.131	A
			2	1	381	95	1108	912	0.418	382	373	0.5	0.7	6.674	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	381	95	-	-	-	381	374	0.0	0.0	0.130	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	25	6	-	-	-	25	24	0.0	0.0	0.108	A
3 - Broad Rushes	Entry	1	1	1	450	112	974	848	0.530	452	452	1.0	1.0	8.859	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	13	3	940	820	0.016	14	13	0.0	0.0	4.700	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	449	112	-	-	-	450	452	0.0	0.0	0.122	A
				2	13	3	-	-	-	13	13	0.0	0.0	0.010	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	690	172	991	1086	0.635	685	686	1.4	1.8	8.641	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	538	134	991	1086	0.495	536	548	1.2	1.0	6.341	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	689	172	-	-	-	690	687	0.1	0.1	0.425	A
				3	538	134	-	-	-	538	547	0.1	0.0	0.357	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	25	6	1108	913	0.027	25	26	0.0	0.0	4.297	A
			2	1	382	96	1108	918	0.417	386	384	0.7	0.7	6.753	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	382	96	-	-	-	382	384	0.0	0.0	0.051	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	25	6	-	-	-	25	26	0.0	0.0	0.011	A
3 - Broad Rushes	Entry	1	1	1	463	116	974	848	0.546	468	462	1.0	1.2	9.546	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	15	4	928	809	0.018	15	13	0.0	0.0	4.143	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	462	115	-	-	-	463	463	0.0	0.0	0.232	A
				2	15	4	-	-	-	15	13	0.0	0.0	0.075	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	549	137	991	1087	0.505	549	556	1.8	1.0	6.500	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	464	116	991	1087	0.427	461	461	1.0	0.9	5.909	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	549	137	-	-	-	549	553	0.1	0.0	0.085	A
				3	464	116	-	-	-	464	460	0.0	0.0	0.109	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	18	5	1095	934	0.020	18	19	0.0	0.0	3.589	A
			2	1	312	78	1108	944	0.330	312	312	0.7	0.4	5.657	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	312	78	-	-	-	312	311	0.0	0.0	0.009	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	18	5	-	-	-	18	19	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	370	93	974	871	0.425	372	381	1.2	0.7	7.244	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	11	3	871	780	0.014	11	11	0.0	0.0	4.027	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	370	93	-	-	-	370	379	0.0	0.0	0.021	A
				2	11	3	-	-	-	11	11	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	485	121	991	1088	0.446	487	476	1.0	0.7	6.032	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	372	93	991	1088	0.342	372	373	0.9	0.5	5.158	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	485	121	-	-	-	485	475	0.0	0.0	0.025	A
				3	372	93	-	-	-	372	371	0.0	0.0	0.029	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	1108	970	0.015	15	16	0.0	0.0	3.824	A
			2	1	257	64	1108	975	0.264	256	261	0.4	0.5	5.111	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	257	64	-	-	-	257	261	0.0	0.0	0.011	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	15	4	-	-	-	15	16	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	303	76	974	890	0.340	303	307	0.7	0.6	6.271	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	8	2	848	776	0.010	8	8	0.0	0.0	4.018	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	303	76	-	-	-	303	307	0.0	0.0	0.001	A
				2	8	2	-	-	-	8	8	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

2023 base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Station Road (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Info	Simulation	A1 - [Lane Simulation]	This run uses Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	11.26	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.26	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 base	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Station Road (N)		ONE HOUR	✓	991	100.000
2 - Station Road (S)		ONE HOUR	✓	608	100.000
3 - Broad Rushes		ONE HOUR	✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	551	440
	2 - Station Road (S)	596	0	12
	3 - Broad Rushes	490	21	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Junction	PCU factor for a cyclist	PCU factor for a cyclist in controlling flow
1	0.20	0.80

Heavy Vehicle %

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	0	0
	2 - Station Road (S)	0	0	0
	3 - Broad Rushes	0	0	0

Cyclist %

		To		
		1 - Station Road (N)	2 - Station Road (S)	3 - Broad Rushes
From	1 - Station Road (N)	0	0	0
	2 - Station Road (S)	0	0	0
	3 - Broad Rushes	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Station Road (N)	0.60	7.05	2.5	A	904	1356
2 - Station Road (S)	0.73	13.04	2.8	B	553	830
3 - Broad Rushes	0.74	17.25	3.1	C	470	706

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	740	185	15	1861	0.398	743	735	806	0.0	0.9	5.191	A
2 - Station Road (S)	449	112	327	1001	0.449	448	457	432	0.0	0.8	6.858	A
3 - Broad Rushes	380	95	440	853	0.445	381	379	334	0.0	0.9	8.013	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	888	222	17	1811	0.490	890	884	955	0.9	1.3	5.686	A
2 - Station Road (S)	536	134	391	974	0.550	533	538	515	0.8	1.2	8.462	A
3 - Broad Rushes	453	113	522	859	0.528	450	458	402	0.9	1.4	9.940	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1103	276	23	1852	0.596	1097	1098	1205	1.3	2.5	6.911	A
2 - Station Road (S)	676	169	486	928	0.728	673	665	634	1.2	2.8	12.592	B
3 - Broad Rushes	569	142	658	770	0.739	570	558	501	1.4	2.6	15.634	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	1087	272	23	1879	0.578	1092	1093	1200	2.5	2.1	7.054	A
2 - Station Road (S)	670	167	482	951	0.704	670	679	634	2.8	2.6	13.036	B
3 - Broad Rushes	571	143	658	768	0.744	566	566	494	2.6	3.1	17.246	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	881	220	19	1871	0.471	881	887	965	2.1	1.3	5.670	A
2 - Station Road (S)	527	132	396	999	0.527	528	546	504	2.6	1.1	8.008	A
3 - Broad Rushes	470	117	515	824	0.570	469	468	408	3.1	1.4	10.619	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	723	181	18	1873	0.386	724	745	815	1.3	1.0	4.965	A
2 - Station Road (S)	461	115	320	1016	0.454	462	470	422	1.1	1.0	6.661	A
3 - Broad Rushes	380	95	454	857	0.443	380	387	329	1.4	0.8	7.771	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	415	1086	0.382	416	410	0.0	0.6	5.451	A
			2	1, 3	326	1086	0.300	327	326	0.0	0.4	4.765	A
		2	1	(1, 3, 2)	740			740	739	0.0	0.0	0.043	A
	Exit	1	1		806			806	813	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	8	992	0.008	8	9	0.0	0.0	3.666	A
			2	1, 2	442	992	0.445	440	448	0.0	0.8	6.782	A
		2	1	(1, 3, 2)	449			449	460	0.0	0.0	0.132	A
	Exit	1	1		432			432	424	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	365	829	0.440	366	365	0.0	0.8	8.132	A
			2	3, 2	15	829	0.018	15	15	0.0	0.0	4.220	A
		2	1	(1, 3, 2)	380			380	383	0.0	0.0	0.030	A
	Exit	1	1		334			334	334	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	498	1085	0.459	498	491	0.6	0.8	6.071	A
			2	1, 3	389	1085	0.359	391	393	0.4	0.5	5.147	A
		2	1	(1, 3, 2)	888			888	885	0.0	0.0	0.025	A
	Exit	1	1		955			955	966	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	11	968	0.011	11	11	0.0	0.0	3.645	A
			2	1, 2	523	968	0.540	522	527	0.8	1.1	8.162	A
		2	1	(1, 3, 2)	536			534	539	0.0	0.1	0.388	A
	Exit	1	1		515			515	510	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	436	802	0.544	433	439	0.8	1.4	9.935	A
			2	3, 2	17	802	0.021	17	19	0.0	0.0	4.569	A
		2	1	(1, 3, 2)	453			453	460	0.0	0.0	0.224	A
	Exit	1	1		402			402	404	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	616	1083	0.569	611	608	0.8	1.6	7.332	A
			2	1, 3	486	1083	0.449	486	490	0.5	0.8	5.978	A
		2	1	(1, 3, 2)	1103			1102	1103	0.0	0.1	0.181	A
	Exit	1	1		1205			1205	1187	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	14	934	0.015	14	12	0.0	0.0	3.962	A
			2	1, 2	659	934	0.705	658	653	1.1	2.1	10.610	B
		2	1	(1, 3, 2)	676			674	669	0.1	0.7	2.076	A
	Exit	1	1		634			634	632	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	547	757	0.723	547	534	1.4	2.4	14.808	B
			2	3, 2	23	757	0.030	23	23	0.0	0.0	4.866	A
		2	1	(1, 3, 2)	569			570	562	0.0	0.2	1.228	A
	Exit	1	1		501			501	502	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	607	1083	0.560	611	612	1.6	1.2	7.514	A
			2	1, 3	481	1083	0.444	482	481	0.8	0.8	5.994	A
		2	1	(1, 3, 2)	1087			1088	1091	0.1	0.0	0.207	A
	Exit	1	1		1200			1200	1210	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	12	936	0.013	12	12	0.0	0.0	3.652	A
			2	1, 2	656	936	0.701	658	667	2.1	2.0	10.991	B
		2	1	(1, 3, 2)	670			669	679	0.7	0.5	2.191	A
	Exit	1	1		634			634	635	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	548	757	0.724	543	543	2.4	2.8	15.692	C
			2	3, 2	24	757	0.031	23	23	0.0	0.1	4.928	A
		2	1	(1, 3, 2)	571			571	568	0.2	0.3	1.965	A
	Exit	1	1		494			494	493	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	489	1084	0.451	485	493	1.2	0.9	6.055	A
			2	1, 3	392	1084	0.362	396	394	0.8	0.4	5.113	A
		2	1	(1, 3, 2)	881			881	884	0.0	0.0	0.037	A
	Exit	1	1		965			965	985	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	12	967	0.013	12	11	0.0	0.0	3.785	A
			2	1, 2	514	967	0.532	515	535	2.0	1.1	7.621	A
		2	1	(1, 3, 2)	527			527	542	0.5	0.1	0.492	A
	Exit	1	1		504			504	511	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	451	804	0.561	450	451	2.8	1.3	10.696	B
			2	3, 2	20	804	0.025	19	18	0.1	0.0	4.528	A
		2	1	(1, 3, 2)	470			470	462	0.3	0.0	0.220	A
	Exit	1	1		408			408	405	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	2	402	1085	0.371	403	414	0.9	0.5	5.216	A
			2	1, 3	321	1085	0.296	320	330	0.4	0.4	4.649	A
		2	1	(1, 3, 2)	723			723	743	0.0	0.0	0.001	A
	Exit	1	1		815			815	831	0.0	0.0	0.000	A
2 - Station Road (S)	Entry	1	1	3	9	994	0.009	9	10	0.0	0.0	3.715	A
			2	1, 2	453	994	0.456	454	460	1.1	0.9	6.619	A
		2	1	(1, 3, 2)	461			462	469	0.1	0.0	0.110	A
	Exit	1	1		422			422	430	0.0	0.0	0.000	A
3 - Broad Rushes	Entry	1	1	1	362	824	0.439	361	372	1.3	0.8	7.876	A
			2	3, 2	18	824	0.022	18	15	0.0	0.0	4.961	A
		2	1	(1, 3, 2)	380			380	385	0.0	0.0	0.011	A
	Exit	1	1		329			329	341	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	991	1086	0.382	416	410	0.0	0.6	5.451	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	326	81	991	1086	0.300	327	326	0.0	0.4	4.765	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	-	-	-	415	412	0.0	0.0	0.050	A
				3	326	81	-	-	-	326	327	0.0	0.0	0.035	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	8	2	1037	927	0.008	8	9	0.0	0.0	3.666	A
			2	1	442	110	1108	992	0.445	440	448	0.0	0.8	6.782	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	441	110	-	-	-	442	451	0.0	0.0	0.134	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	8	2	-	-	-	8	9	0.0	0.0	0.054	A
3 - Broad Rushes	Entry	1	1	1	365	91	974	829	0.440	366	365	0.0	0.8	8.132	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	15	4	924	783	0.019	15	15	0.0	0.0	4.220	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	365	91	-	-	-	365	368	0.0	0.0	0.026	A
				2	15	4	-	-	-	15	15	0.0	0.0	0.137	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	498	125	991	1085	0.459	498	491	0.6	0.8	6.071	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	389	97	991	1085	0.359	391	393	0.4	0.5	5.147	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	498	125	-	-	-	498	492	0.0	0.0	0.027	A
				3	389	97	-	-	-	389	393	0.0	0.0	0.023	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	1052	919	0.012	11	11	0.0	0.0	3.645	A
			2	1	523	131	1108	968	0.541	522	527	0.8	1.1	8.162	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	525	131	-	-	-	523	529	0.0	0.1	0.392	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	11	3	-	-	-	11	11	0.0	0.0	0.205	A
3 - Broad Rushes	Entry	1	1	1	436	109	974	802	0.544	433	439	0.8	1.4	9.935	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	17	4	974	805	0.021	17	19	0.0	0.0	4.569	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	436	109	-	-	-	436	441	0.0	0.0	0.234	A
				2	17	4	-	-	-	17	19	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalis level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	616	154	991	1083	0.569	611	608	0.8	1.6	7.332	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	486	122	991	1083	0.449	486	490	0.5	0.8	5.978	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	617	154	-	-	-	616	611	0.0	0.0	0.199	A
				3	486	122	-	-	-	486	491	0.0	0.0	0.158	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	4	1066	897	0.016	14	12	0.0	0.0	3.962	A
			2	1	659	165	1108	935	0.705	658	653	1.1	2.1	10.610	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	661	165	-	-	-	659	657	0.1	0.7	2.082	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	14	4	-	-	-	14	12	0.0	0.0	1.791	A
3 - Broad Rushes	Entry	1	1	1	547	137	974	757	0.723	547	534	1.4	2.4	14.808	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	23	6	974	761	0.030	23	23	0.0	0.0	4.866	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	546	137	-	-	-	547	539	0.0	0.2	1.243	A
				2	23	6	-	-	-	23	23	0.0	0.0	0.886	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalis level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	607	152	991	1083	0.560	611	612	1.6	1.2	7.514	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	481	120	991	1083	0.444	482	481	0.8	0.8	5.994	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	606	152	-	-	-	607	610	0.0	0.0	0.213	A
				3	480	120	-	-	-	481	480	0.0	0.0	0.199	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	1066	899	0.014	12	12	0.0	0.0	3.652	A
			2	1	656	164	1108	936	0.702	658	667	2.1	2.0	10.991	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	657	164	-	-	-	656	667	0.7	0.5	2.194	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	12	0.0	0.0	2.034	A
3 - Broad Rushes	Entry	1	1	1	548	137	974	757	0.723	543	543	2.4	2.8	15.692	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	24	6	974	757	0.031	23	23	0.0	0.1	4.928	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	548	137	-	-	-	548	545	0.2	0.3	1.963	A
				2	24	6	-	-	-	24	23	0.0	0.0	2.023	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

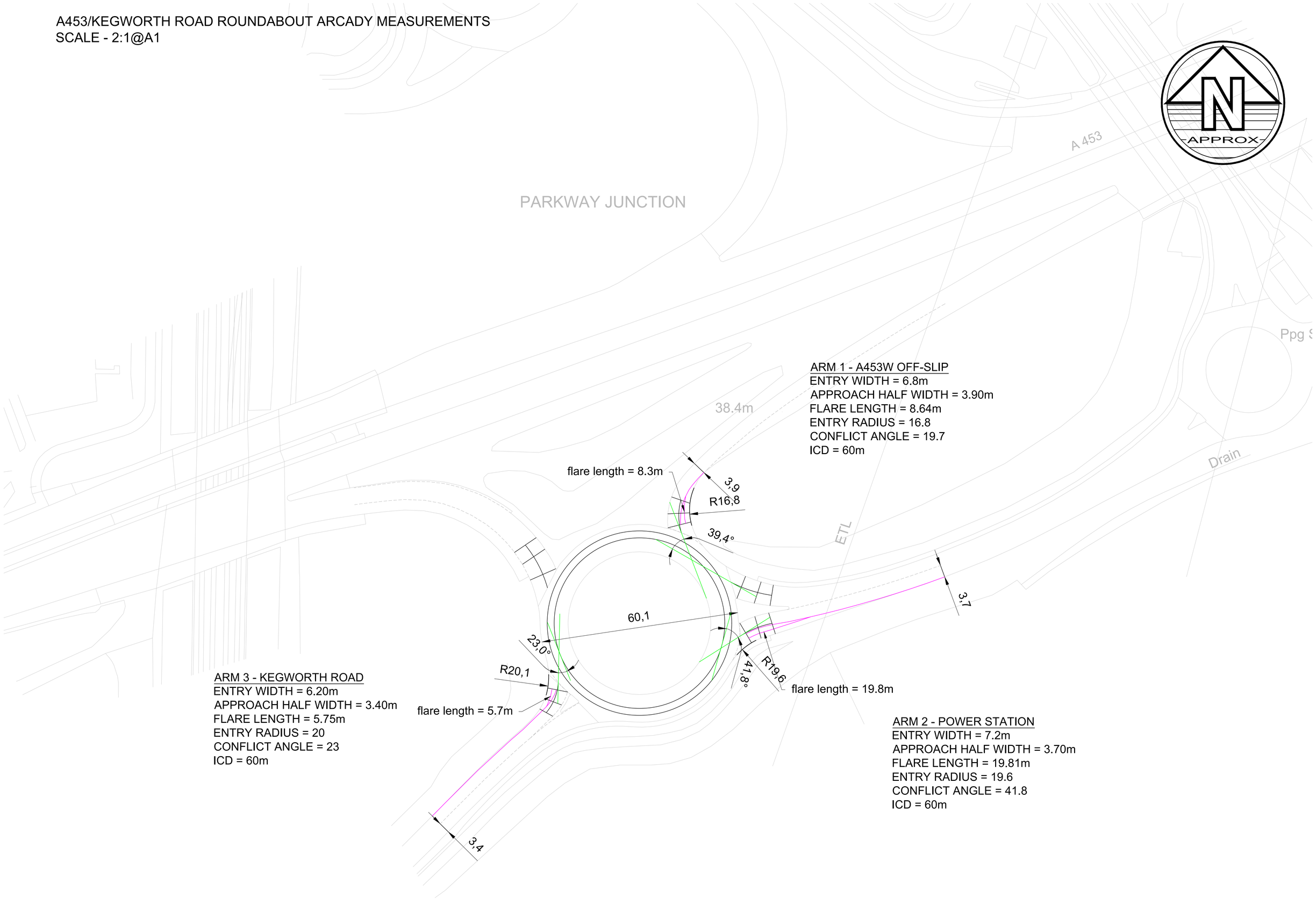
Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalis level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	489	122	991	1084	0.451	485	493	1.2	0.9	6.055	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	392	98	991	1084	0.362	396	394	0.8	0.4	5.113	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	489	122	-	-	-	489	492	0.0	0.0	0.037	A
				3	392	98	-	-	-	392	392	0.0	0.0	0.037	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	1052	916	0.013	12	11	0.0	0.0	3.785	A
			2	1	514	129	1108	966	0.532	515	535	2.0	1.1	7.621	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	514	129	-	-	-	514	531	0.5	0.1	0.498	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	12	3	-	-	-	12	11	0.0	0.0	0.229	A
3 - Broad Rushes	Entry	1	1	1	451	113	974	804	0.560	450	451	2.8	1.3	10.696	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	20	5	962	791	0.025	19	18	0.1	0.0	4.528	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	450	113	-	-	-	451	445	0.3	0.0	0.221	A
				2	20	5	-	-	-	20	18	0.0	0.0	0.190	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Simulation max flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Station Road (N)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	101	991	1085	0.370	403	414	0.9	0.5	5.216	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	321	80	991	1085	0.296	320	330	0.4	0.4	4.649	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	101	-	-	-	402	413	0.0	0.0	0.002	A
				3	321	80	-	-	-	321	331	0.0	0.0	0.001	A
2 - Station Road (S)	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	1023	911	0.010	9	10	0.0	0.0	3.715	A
			2	1	453	113	1108	994	0.456	454	460	1.1	0.9	6.619	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	453	113	-	-	-	453	459	0.1	0.0	0.112	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	9	2	-	-	-	9	10	0.0	0.0	0.031	A
3 - Broad Rushes	Entry	1	1	1	362	90	974	826	0.438	361	372	1.3	0.8	7.876	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	18	5	974	822	0.022	18	15	0.0	0.0	4.961	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
		2	1	1	362	90	-	-	-	362	370	0.0	0.0	0.011	A
				2	18	5	-	-	-	18	15	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

APPENDIX 6: Junction 16 A453/Kegworth Road Roundabout Model Outputs

A453/KEGWORTH ROAD ROUNDABOUT ARCADY MEASUREMENTS
SCALE - 2:1@A1



ARM 1 - A453W OFF-SLIP
ENTRY WIDTH = 6.8m
APPROACH HALF WIDTH = 3.90m
FLARE LENGTH = 8.64m
ENTRY RADIUS = 16.8
CONFLICT ANGLE = 19.7
ICD = 60m

ARM 3 - KEGWORTH ROAD
ENTRY WIDTH = 6.20m
APPROACH HALF WIDTH = 3.40m
FLARE LENGTH = 5.75m
ENTRY RADIUS = 20
CONFLICT ANGLE = 23
ICD = 60m

ARM 2 - POWER STATION
ENTRY WIDTH = 7.2m
APPROACH HALF WIDTH = 3.70m
FLARE LENGTH = 19.81m
ENTRY RADIUS = 19.6
CONFLICT ANGLE = 41.8
ICD = 60m

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.3.1598
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Filename: Import of A453 Kegworth Road.j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\Models\16. A453_Kegworth Road\A453_Kegworth Road Base Model
Report generation date: 31/01/2024 14:40:31

»2022, AM
»2022, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Arm 1	D1	0.0	2.41	0.04	A	D2	0.0	2.39	0.04	A
Arm 2		0.0	2.27	0.03	A		0.1	2.38	0.06	A
Arm 3		0.1	2.67	0.05	A		0.0	2.55	0.03	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	08/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BWB\Aaiza.Shafiq
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	AM	ONE HOUR	07:45	09:15	15
D2	2022	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.47	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A453 Exit Slip Road		
2	Kegworth Road (E)		
3	Kegworth Road (S)		
4	A453 Entry Slip Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.90	6.80	8.6	16.8	60.0	19.7		
2	3.70	7.20	19.8	19.6	60.0	41.8		
3	3.40	6.20	5.8	20.0	60.0	0.0		
4								✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.555	1648
2	0.550	1723
3	0.550	1504
4		

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	66	100.000
2		✓	48	100.000
3		✓	67	100.000
4				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	39	27	0
	2	0	0	20	28
	3	0	53	0	14
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	4	0
	2	0	0	0	8
	3	0	2	0	17
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.04	2.41	0.0	A
2	0.03	2.27	0.0	A
3	0.05	2.67	0.1	A
4				

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	40	1626	0.031	50	0.0	2.361	A
2	36	20	1712	0.021	36	0.0	2.244	A
3	50	21	1492	0.034	50	0.0	2.616	A
4		40						

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	48	1621	0.037	59	0.0	2.382	A
2	43	24	1710	0.025	43	0.0	2.257	A
3	60	25	1490	0.040	60	0.0	2.638	A
4		48						

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	58	1615	0.045	73	0.0	2.412	A
2	53	30	1707	0.031	53	0.0	2.274	A
3	74	31	1487	0.050	74	0.1	2.669	A
4		58						

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	73	58	1615	0.045	73	0.0	2.412	A
2	53	30	1707	0.031	53	0.0	2.274	A
3	74	31	1487	0.050	74	0.1	2.669	A
4		58						

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	48	1621	0.037	59	0.0	2.384	A
2	43	24	1710	0.025	43	0.0	2.257	A
3	60	25	1490	0.040	60	0.0	2.639	A
4		48						

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	40	1626	0.031	50	0.0	2.361	A
2	36	20	1712	0.021	36	0.0	2.244	A
3	50	21	1492	0.034	50	0.0	2.619	A
4		40						

2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	54	100.000
2		✓	97	100.000
3		✓	41	100.000
4				

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	18	36	0
	2	0	0	23	74
	3	0	35	0	6
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	13	0	0
	2	0	0	10	4
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.04	2.39	0.0	A
2	0.06	2.38	0.1	A
3	0.03	2.55	0.0	A
4				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	41	26	1633	0.025	41	0.0	2.350	A
2	73	27	1708	0.043	73	0.0	2.319	A
3	31	56	1473	0.021	31	0.0	2.495	A
4		26						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	31	1630	0.030	49	0.0	2.366	A
2	87	32	1705	0.051	87	0.1	2.343	A
3	37	66	1467	0.025	37	0.0	2.516	A
4		31						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	39	1626	0.037	59	0.0	2.388	A
2	107	40	1701	0.063	107	0.1	2.378	A
3	45	81	1459	0.031	45	0.0	2.546	A
4		39						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	39	1626	0.037	59	0.0	2.388	A
2	107	40	1701	0.063	107	0.1	2.378	A
3	45	81	1459	0.031	45	0.0	2.546	A
4		39						

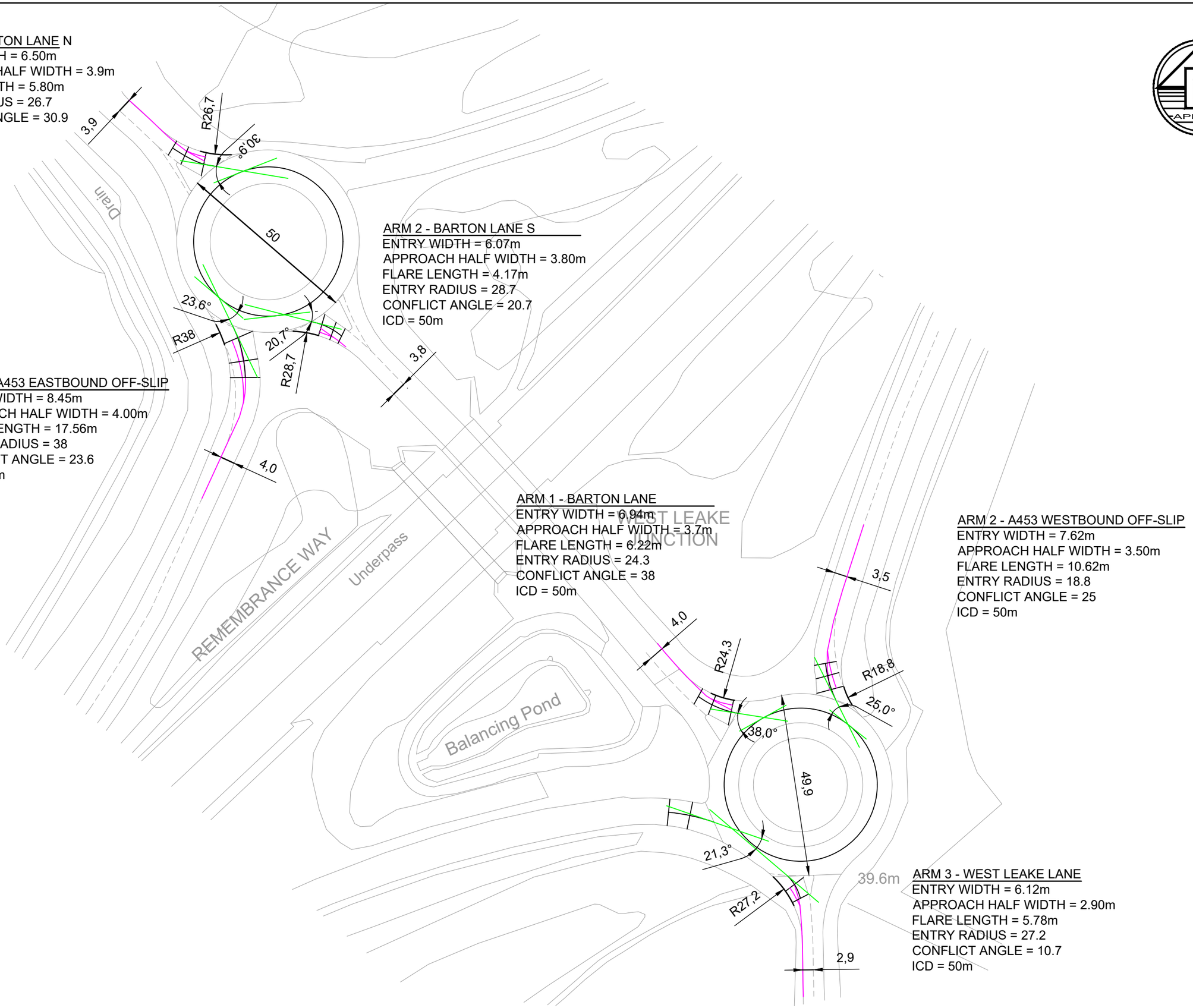
17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	31	1630	0.030	49	0.0	2.368	A
2	87	32	1705	0.051	87	0.1	2.343	A
3	37	67	1467	0.025	37	0.0	2.516	A
4		31						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	41	26	1633	0.025	41	0.0	2.350	A
2	73	27	1708	0.043	73	0.0	2.319	A
3	31	56	1473	0.021	31	0.0	2.497	A
4		26						

APPENDIX 7: Junction 17 - A453/West Leake Lane Roundabout Model Outputs



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Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.3.1598
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Import of West Leake Lane.j10
Path: J:\2022\220500-East Midlands Gateway Phase 2 (1)\ProjectDelivery\01-WIP\Models\17. A453_West Leake Lane\A453_West Leake Lane Base Model
Report generation date: 31/01/2024 14:42:21

»2022, AM
»2022, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
1 - untitled - 1 - Barton Lane	D1	0.4	3.74	0.24	A	D2	0.2	3.01	0.16	A
1 - untitled - 2 - A453 (NE)		0.0	2.80	0.04	A		0.0	2.60	0.04	A
1 - untitled - 3 - West Leake Lane		0.5	4.40	0.30	A		0.3	3.70	0.22	A
2 - untitled - 1 - Barton Lane		0.1	3.55	0.06	A		0.0	2.84	0.02	A
2 - untitled - 3 - Barton Lane (S)		0.1	3.02	0.06	A		0.1	2.71	0.05	A
2 - untitled - 4 - A453 (SW)		0.2	2.50	0.16	A		0.1	2.10	0.11	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	08/01/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BWB\Aaiza.Shafiq
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	AM	ONE HOUR	07:45	09:15	15
D2	2022	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.99	A
2	untitled	Standard Roundabout		1, 2, 3, 4	2.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.53	A

Arms

Arms

Junction	Arm	Name	Description	No give-way line
1 - untitled	1	Barton Lane		
	2	A453 (NE)		
	3	West Leake Lane		
	4	A453 (SW)		
2 - untitled	1	Barton Lane		
	2	A453 (NE)		
	3	Barton Lane (S)		
	4	A453 (SW)		

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - untitled	1 - Barton Lane	3.70	6.94	6.2	24.3	50.0	38.0		
	2 - A453 (NE)	3.50	7.62	10.6	18.8	50.0	25.0	✓	
	3 - West Leake Lane	2.90	6.12	5.8	27.2	50.0	10.7		
	4 - A453 (SW)								✓
2 - untitled	1 - Barton Lane	3.90	6.50	5.8	26.7	50.0	30.9		
	2 - A453 (NE)								✓
	3 - Barton Lane (S)	3.80	6.07	4.2	28.7	50.0	20.7		
	4 - A453 (SW)	4.00	8.45	17.6	38.0	50.0	23.6	✓	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - untitled	1 - Barton Lane	0.558	1461
	2 - A453 (NE)	0.601	1640
	3 - West Leake Lane	0.561	1328
	4 - A453 (SW)		
2 - untitled	1 - Barton Lane	0.577	1519
	2 - A453 (NE)		
	3 - Barton Lane (S)	0.578	1468
	4 - A453 (SW)	0.687	2045

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - untitled	1 - Barton Lane	2	3	Queue limited	Normal	0	100.00	27.00
2 - untitled	3 - Barton Lane (S)	1	1	Queue limited	Normal	0	100.00	27.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - untitled	1 - Barton Lane	✓			
	2 - A453 (NE)		✓	53	100.000
	3 - West Leake Lane		✓	351	100.000
	4 - A453 (SW)				
2 - untitled	1 - Barton Lane		✓	66	100.000
	2 - A453 (NE)				
	3 - Barton Lane (S)	✓			
	4 - A453 (SW)		✓	284	100.000

Origin-Destination Data

1 - untitled

Demand (PCU/hr)

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - West Leake Lane	4 - A453 (SW)
From	1 - Barton Lane	0	0	273	51
	2 - A453 (NE)	5	0	48	0
	3 - West Leake Lane	80	0	0	271
	4 - A453 (SW)	0	0	0	0

2 - untitled

Demand (PCU/hr)

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - Barton Lane (S)	4 - A453 (SW)
From	1 - Barton Lane	0	0	66	0
	2 - A453 (NE)	0	0	0	0
	3 - Barton Lane (S)	12	73	0	0
	4 - A453 (SW)	26	0	258	0

Vehicle Mix

Heavy Vehicle Percentages

1 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - West Leake Lane	4 - A453 (SW)
From	1 - Barton Lane	0	0	14	19
	2 - A453 (NE)	0	0	7	0
	3 - West Leake Lane	14	0	0	10
	4 - A453 (SW)	0	0	0	0

Heavy Vehicle Percentages

2 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - Barton Lane (S)	4 - A453 (SW)
From	1 - Barton Lane	0	0	22	0
	2 - A453 (NE)	0	0	0	0
	3 - Barton Lane (S)	25	14	0	0
	4 - A453 (SW)	15	0	16	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - untitled	1 - Barton Lane	0.24	3.74	0.4	A
	2 - A453 (NE)	0.04	2.80	0.0	A
	3 - West Leake Lane	0.30	4.40	0.5	A
	4 - A453 (SW)				
2 - untitled	1 - Barton Lane	0.06	3.55	0.1	A
	2 - A453 (NE)				
	3 - Barton Lane (S)	0.06	3.02	0.1	A
	4 - A453 (SW)	0.16	2.50	0.2	A

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	243	0	1461	0.167	242	0.2	3.389	A
	2 - A453 (NE)	40	242	1495	0.027	40	0.0	2.629	A
	3 - West Leake Lane	264	42	1304	0.203	263	0.3	3.832	A
	4 - A453 (SW)		64						
2 - untitled	1 - Barton Lane	50	248	1376	0.036	50	0.0	3.311	A
	2 - A453 (NE)		243						
	3 - Barton Lane (S)	64	0	1468	0.043	64	0.1	2.958	A
	4 - A453 (SW)	214	64	2002	0.107	213	0.1	2.333	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	291	0	1461	0.199	291	0.3	3.531	A
	2 - A453 (NE)	48	291	1466	0.033	48	0.0	2.698	A
	3 - West Leake Lane	316	50	1299	0.243	315	0.4	4.055	A
	4 - A453 (SW)		76						
2 - untitled	1 - Barton Lane	59	297	1348	0.044	59	0.1	3.408	A
	2 - A453 (NE)		291						
	3 - Barton Lane (S)	76	0	1468	0.052	76	0.1	2.984	A
	4 - A453 (SW)	255	76	1993	0.128	255	0.2	2.400	A

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	356	0	1461	0.244	356	0.4	3.740	A
	2 - A453 (NE)	58	356	1426	0.041	58	0.0	2.796	A
	3 - West Leake Lane	386	62	1293	0.299	386	0.5	4.399	A
	4 - A453 (SW)		93						
2 - untitled	1 - Barton Lane	73	364	1309	0.056	73	0.1	3.551	A
	2 - A453 (NE)		356						
	3 - Barton Lane (S)	93	0	1468	0.064	93	0.1	3.022	A
	4 - A453 (SW)	313	93	1981	0.158	313	0.2	2.500	A

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	357	0	1461	0.244	357	0.4	3.741	A
	2 - A453 (NE)	58	357	1426	0.041	58	0.0	2.797	A
	3 - West Leake Lane	386	62	1293	0.299	386	0.5	4.403	A
	4 - A453 (SW)		94						
2 - untitled	1 - Barton Lane	73	364	1309	0.056	73	0.1	3.552	A
	2 - A453 (NE)		357						
	3 - Barton Lane (S)	94	0	1468	0.064	94	0.1	3.022	A
	4 - A453 (SW)	313	94	1981	0.158	313	0.2	2.500	A

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	291	0	1461	0.200	292	0.3	3.534	A
	2 - A453 (NE)	48	292	1465	0.033	48	0.0	2.701	A
	3 - West Leake Lane	316	50	1299	0.243	316	0.4	4.063	A
	4 - A453 (SW)		77						
2 - untitled	1 - Barton Lane	59	298	1347	0.044	59	0.1	3.409	A
	2 - A453 (NE)		291						
	3 - Barton Lane (S)	77	0	1468	0.052	77	0.1	2.987	A
	4 - A453 (SW)	255	77	1993	0.128	255	0.2	2.401	A

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	244	0	1461	0.167	244	0.2	3.398	A
	2 - A453 (NE)	40	244	1494	0.027	40	0.0	2.634	A
	3 - West Leake Lane	264	42	1304	0.203	265	0.3	3.841	A
	4 - A453 (SW)		64						
2 - untitled	1 - Barton Lane	50	249	1375	0.036	50	0.0	3.315	A
	2 - A453 (NE)		244						
	3 - Barton Lane (S)	64	0	1468	0.044	64	0.1	2.958	A
	4 - A453 (SW)	214	64	2001	0.107	214	0.1	2.334	A

2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.30	A
2	untitled	Standard Roundabout		1, 2, 3, 4	2.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.94	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - untitled	1 - Barton Lane	2	3	Queue limited	Normal	0	100.00	27.00
2 - untitled	3 - Barton Lane (S)	1	1	Queue limited	Normal	0	100.00	27.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - untitled	1 - Barton Lane	✓			
	2 - A453 (NE)		✓	58	100.000
	3 - West Leake Lane		✓	260	100.000
	4 - A453 (SW)				
2 - untitled	1 - Barton Lane		✓	19	100.000
	2 - A453 (NE)				
	3 - Barton Lane (S)	✓			
	4 - A453 (SW)		✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

1 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - West Leake Lane	4 - A453 (SW)
From	1 - Barton Lane	0	0	195	15
	2 - A453 (NE)	4	0	54	0
	3 - West Leake Lane	61	0	0	199
	4 - A453 (SW)	0	0	0	0

Demand (PCU/hr)

2 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - Barton Lane (S)	4 - A453 (SW)
From	1 - Barton Lane	0	1	18	0
	2 - A453 (NE)	0	0	0	0
	3 - Barton Lane (S)	8	57	0	0
	4 - A453 (SW)	13	0	192	0

Vehicle Mix

Heavy Vehicle Percentages

1 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - West Leake Lane	4 - A453 (SW)
From	1 - Barton Lane	0	0	3	0
	2 - A453 (NE)	0	0	4	0
	3 - West Leake Lane	5	0	0	6
	4 - A453 (SW)	0	0	0	0

Heavy Vehicle Percentages

2 - untitled

		To			
		1 - Barton Lane	2 - A453 (NE)	3 - Barton Lane (S)	4 - A453 (SW)
From	1 - Barton Lane	0	0	6	0
	2 - A453 (NE)	0	0	0	0
	3 - Barton Lane (S)	0	6	0	0
	4 - A453 (SW)	9	0	3	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - untitled	1 - Barton Lane	0.16	3.01	0.2	A
	2 - A453 (NE)	0.04	2.60	0.0	A
	3 - West Leake Lane	0.22	3.70	0.3	A
	4 - A453 (SW)				
2 - untitled	1 - Barton Lane	0.02	2.84	0.0	A
	2 - A453 (NE)				
	3 - Barton Lane (S)	0.05	2.71	0.1	A
	4 - A453 (SW)	0.11	2.10	0.1	A

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	158	0	1461	0.108	157	0.1	2.838	A
	2 - A453 (NE)	44	157	1546	0.028	44	0.0	2.484	A
	3 - West Leake Lane	196	14	1320	0.148	195	0.2	3.384	A
	4 - A453 (SW)		49						
2 - untitled	1 - Barton Lane	14	187	1411	0.010	14	0.0	2.722	A
	2 - A453 (NE)		158						
	3 - Barton Lane (S)	49	0	1468	0.033	49	0.0	2.667	A
	4 - A453 (SW)	154	49	2012	0.077	154	0.1	2.002	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	189	0	1461	0.129	189	0.2	2.908	A
	2 - A453 (NE)	52	189	1527	0.034	52	0.0	2.530	A
	3 - West Leake Lane	234	17	1318	0.177	234	0.2	3.510	A
	4 - A453 (SW)		58						
2 - untitled	1 - Barton Lane	17	224	1390	0.012	17	0.0	2.770	A
	2 - A453 (NE)		189						
	3 - Barton Lane (S)	58	0	1468	0.040	58	0.0	2.686	A
	4 - A453 (SW)	184	58	2005	0.092	184	0.1	2.043	A

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	231	0	1461	0.158	231	0.2	3.008	A
	2 - A453 (NE)	64	231	1502	0.043	64	0.0	2.596	A
	3 - West Leake Lane	286	21	1316	0.218	286	0.3	3.697	A
	4 - A453 (SW)		72						
2 - untitled	1 - Barton Lane	21	274	1361	0.015	21	0.0	2.837	A
	2 - A453 (NE)		231						
	3 - Barton Lane (S)	72	0	1468	0.049	71	0.1	2.711	A
	4 - A453 (SW)	226	71	1996	0.113	226	0.1	2.101	A

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	231	0	1461	0.158	231	0.2	3.008	A
	2 - A453 (NE)	64	231	1501	0.043	64	0.0	2.596	A
	3 - West Leake Lane	286	21	1316	0.218	286	0.3	3.697	A
	4 - A453 (SW)		72						
2 - untitled	1 - Barton Lane	21	274	1361	0.015	21	0.0	2.838	A
	2 - A453 (NE)		231						
	3 - Barton Lane (S)	72	0	1468	0.049	72	0.1	2.711	A
	4 - A453 (SW)	226	72	1996	0.113	226	0.1	2.101	A

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	189	0	1461	0.129	189	0.2	2.909	A
	2 - A453 (NE)	52	189	1527	0.034	52	0.0	2.533	A
	3 - West Leake Lane	234	17	1318	0.177	234	0.2	3.515	A
	4 - A453 (SW)		58						
2 - untitled	1 - Barton Lane	17	224	1390	0.012	17	0.0	2.772	A
	2 - A453 (NE)		189						
	3 - Barton Lane (S)	58	0	1468	0.040	59	0.0	2.688	A
	4 - A453 (SW)	184	59	2005	0.092	184	0.1	2.045	A

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - untitled	1 - Barton Lane	158	0	1461	0.108	158	0.1	2.842	A
	2 - A453 (NE)	44	158	1545	0.028	44	0.0	2.488	A
	3 - West Leake Lane	196	14	1320	0.148	196	0.2	3.388	A
	4 - A453 (SW)		49						
2 - untitled	1 - Barton Lane	14	188	1411	0.010	14	0.0	2.723	A
	2 - A453 (NE)		158						
	3 - Barton Lane (S)	49	0	1468	0.033	49	0.0	2.670	A
	4 - A453 (SW)	154	49	2012	0.077	154	0.1	2.003	A

APPENDIX 8: Junction 6 - A453/East Midlands Airport Signal Junction Model Outputs

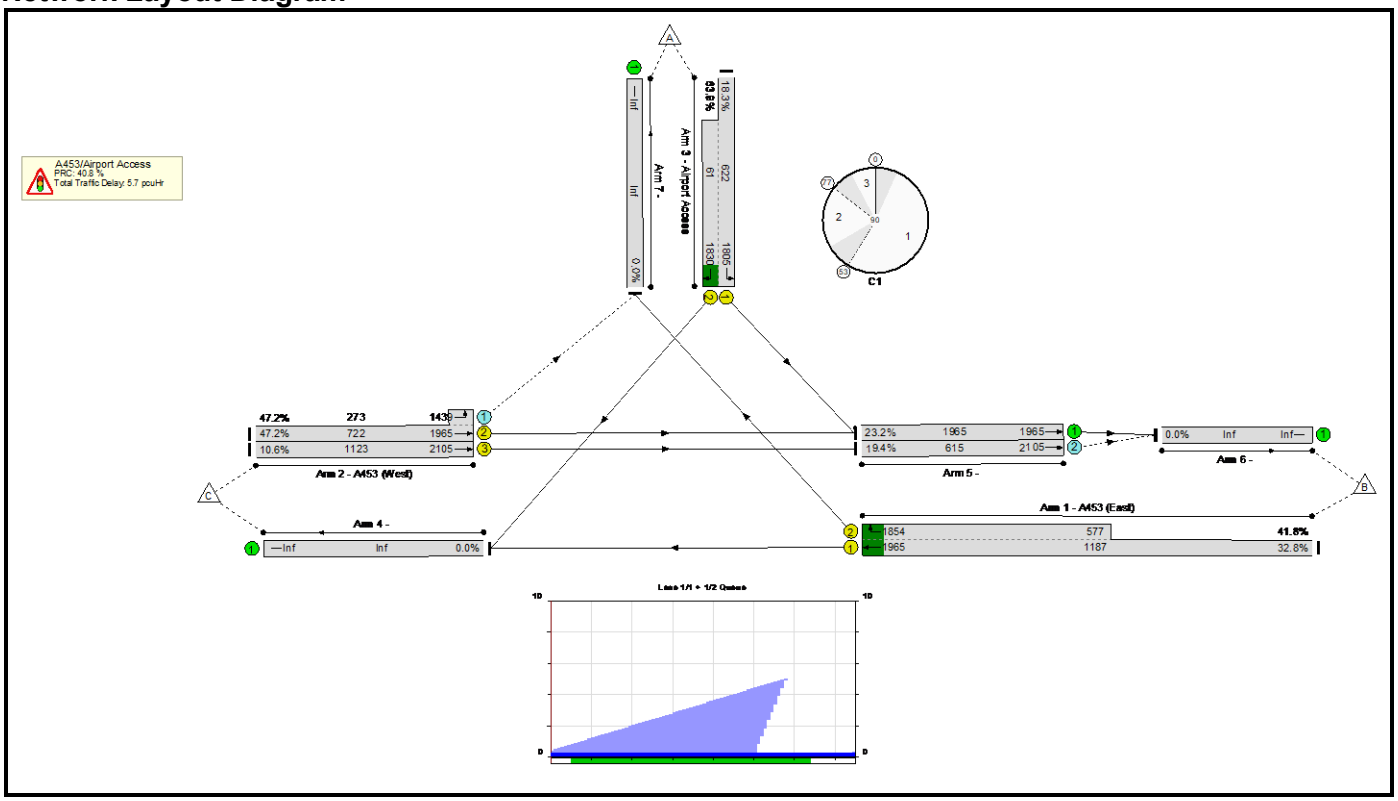
Basic Results Summary

User and Project Details

Project:	**East Midlands Gateway Phase 2**
Title:	**A453/EMA Junction**
Location:	
Client:	SEGRO
Site Ref(s):	Junction 6
Checked By:	Vibeeshan Devaharan
Checked By Date:	27/03/24
Additional detail:	
File name:	240405 A453_Airport Access Signal Junction (BASE ONLY).lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM)', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

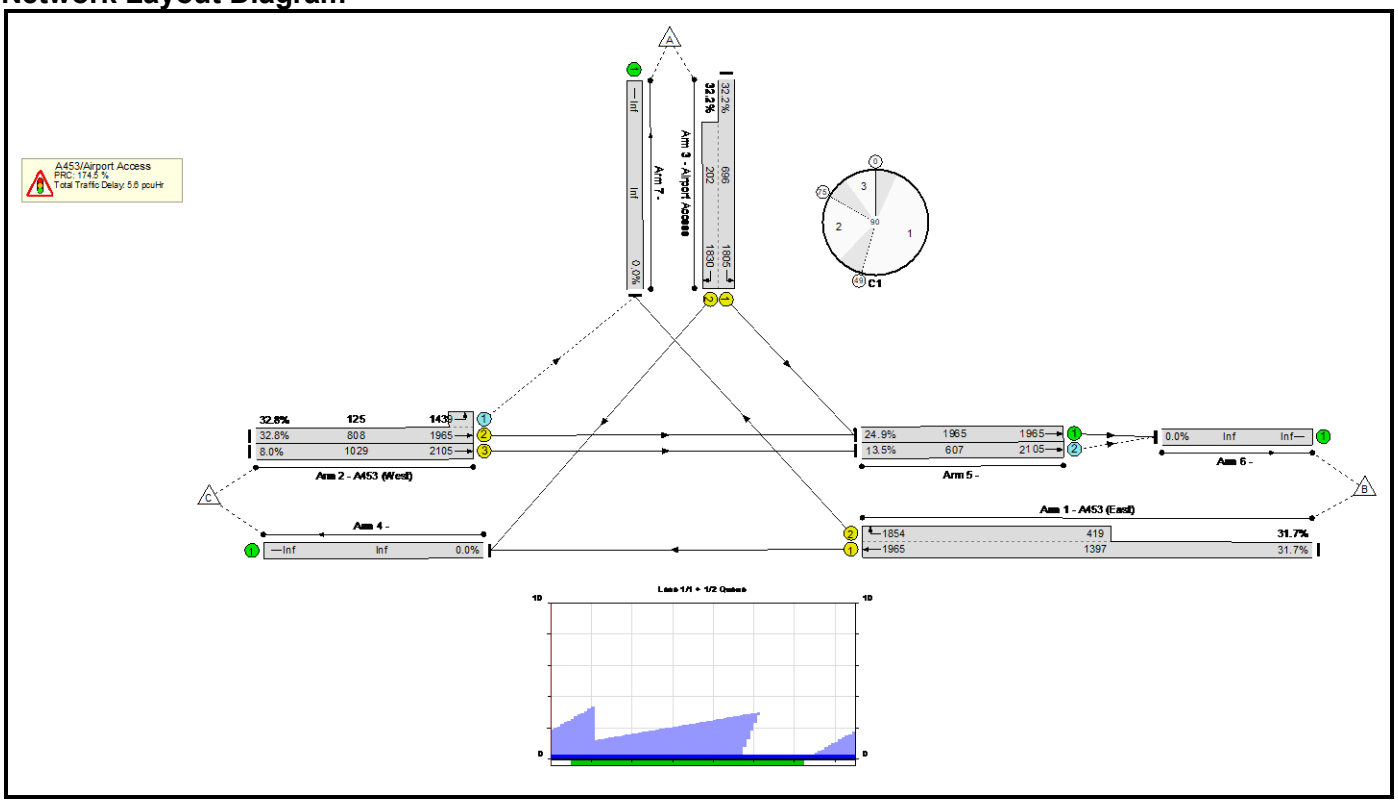
Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)
Network: A453/EMA Junction	**-**	**63.9%**	**-**	**-**
A453/Airport Access	**-**	**63.9%**	**-**	**-**
2/3	A453 (West) Ahead	10.6%	12.2	1.5
5/2	Ahead	19.4%	5.0	1.8
5/1	Ahead	23.2%	1.2	0.0
1/1+1/2	A453 (East) Ahead Right	32.8 : 41.8%	11.1 (1.8:26.1)	4.8
2/2+2/1	A453 (West) Ahead Left	47.2 : 47.2%	13.3 (15.7:7.0)	6.2
3/1+3/2	Airport Access Right Left	18.3 : 63.9%	29.7 (24.0:46.4)	2.0

C1 PRC for Signalled Lanes (%): 40.8 Total Delay for Signalled Lanes (pcuHr): 5.35 Cycle Time (s): 90
PRC Over All Lanes (%): 40.8 Total Delay Over All Lanes(pcuHr): 5.66

Basic Results Summary

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 2: 'Network Control Plan 2')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)
Network: A453/EMA Junction	**-**	**32.8%**	**-**	**-**
A453/Airport Access	**-**	**32.8%**	**-**	**-**
2/3	A453 (West) Ahead	8.0%	14.1	1.1
5/2	Ahead	13.5%	4.0	1.2
5/1	Ahead	24.9%	1.2	0.0
1/1+1/2	A453 (East) Ahead Right	31.7 : 31.7%	10.2 (4.3:30.0)	3.1
3/1+3/2	Airport Access Right Left	32.2 : 32.2%	26.1 (22.1:39.8)	3.9
2/2+2/1	A453 (West) Ahead Left	32.8 : 32.8%	15.0 (16.5:5.3)	4.2

C1 PRC for Signalled Lanes (%): 174.5 Total Delay for Signalled Lanes (pcuHr): 5.34 Cycle Time (s): 90

PRC Over All Lanes (%): 174.5 Total Delay Over All Lanes(pcuHr): 5.59

APPENDIX 9: Junction 10 - A453/Walton Hill Signal Junction Model Outputs

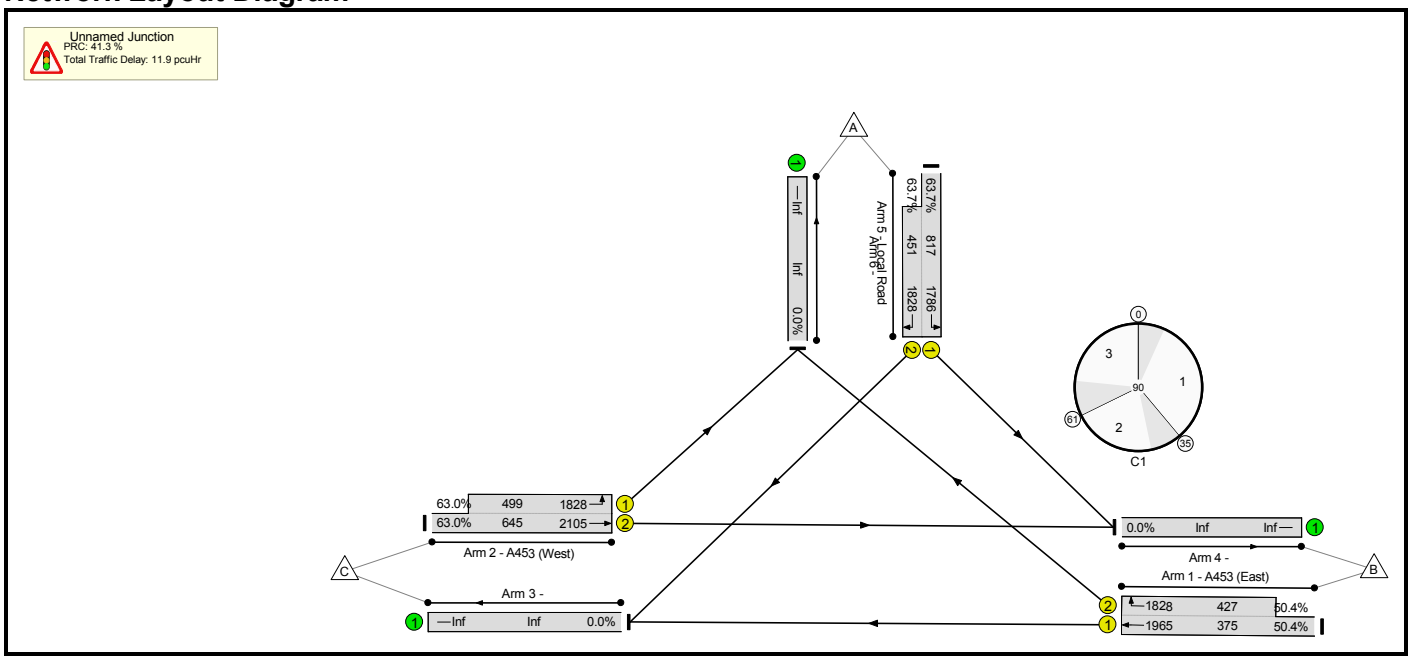
Basic Results Summary

User and Project Details

Project:	**East Midlands Gateway Phase 2**
Title:	**A453 Walton Hill Junction**
Location:	
Client:	SEGRO
Site Ref(s):	Junction 10
Date Completed:	27/03/24
Checked By:	Vibeeshan Devaharan
Additional detail:	Phase B added to run in stage 3 as per on site observations
File name:	240405 A453_Local Road Signal Junction (BASE ONLY).lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Scenario 1: '2022 Observed (AM)' (FG1: '2022 Observed (AM) (Current Scenario)', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A453 Walton Hill Junction	-	-	-		-	-	-	-	-	-	**63.7%**	**0**	**0**	**0**	**11.9**	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**63.7%**	**0**	**0**	**0**	**11.9**	-	-
1/1+1/2	A453 (East) Ahead Right	U	C D		1	55:20	-	404	1965:1828	375+427	50.4 : 50.4%	-	-	-	2.7	23.8	5.2
2/2+2/1	A453 (West) Ahead Left	U	A B		1	29:56	-	720	2105:1828	645+499	63.0 : 63.0%	-	-	-	4.3	21.4	9.2
5/1+5/2	Local Road Right Left	U	E F		1	48:24	-	807	1786:1828	817+451	63.7 : 63.7%	-	-	-	5.0	22.3	9.1

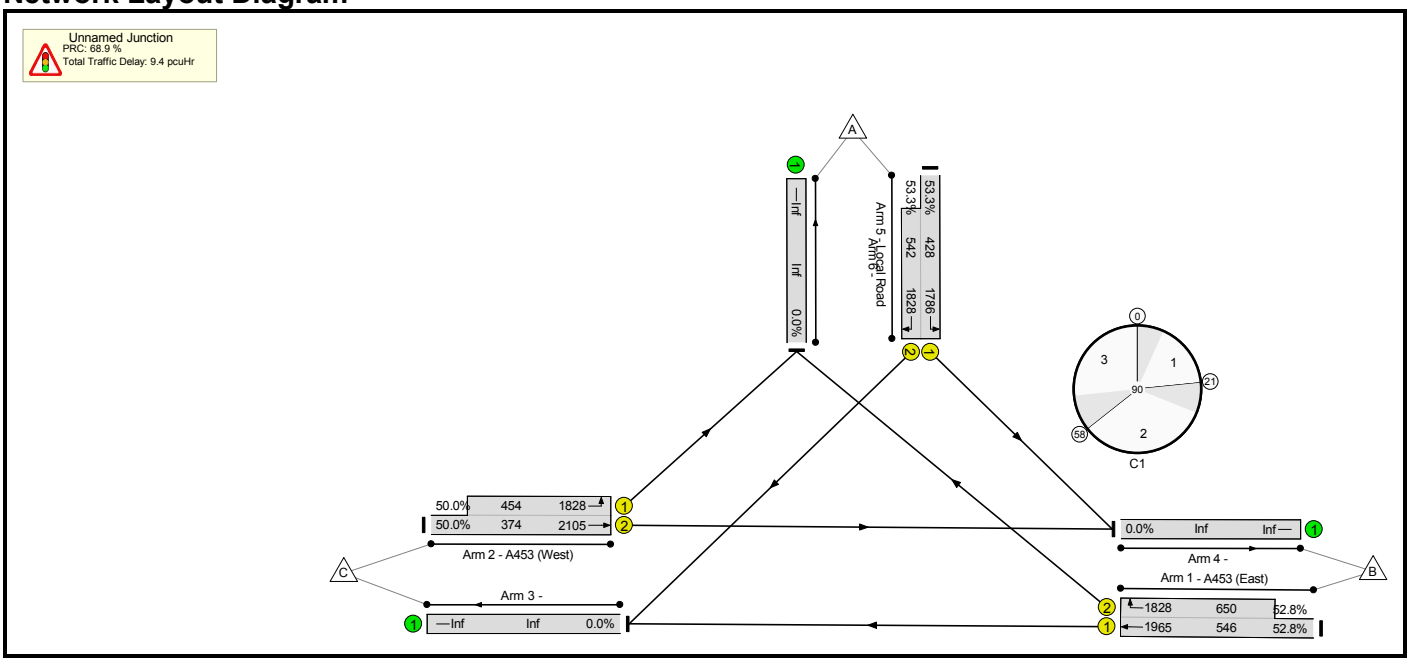
C1 PRC for Signalled Lanes (%): 41.3 Total Delay for Signalled Lanes (pcuHr): 11.95 Cycle Time (s): 90

PRC Over All Lanes (%): 41.3 Total Delay Over All Lanes(pcuHr): 11.95

Basic Results Summary

Scenario 2: '2022 Observed (PM)' (FG2: '2022 Observed (PM)', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A453 Walton Hill Junction	-	-	-		-	-	-	-	-	-	**53.3%**	**0**	**0**	**0**	**9.4**	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**53.3%**	**0**	**0**	**0**	**9.4**	-	-
1/1+1/2	A453 (East) Ahead Right	U	C D		1	52:31	-	631	1965:1828	546+650	52.8 : 52.8%	-	-	-	3.5	19.8	7.3
2/2+2/1	A453 (West) Ahead Left	U	A B		1	15:45	-	414	2105:1828	374+454	50.0 : 50.0%	-	-	-	3.0	26.2	4.7
5/1+5/2	Local Road Right Left	U	E F		1	62:27	-	517	1786:1828	428+542	53.3 : 53.3%	-	-	-	2.9	20.2	6.4

C1

PRC for Signalled Lanes (%): 68.9
PRC Over All Lanes (%): 68.9

Total Delay for Signalled Lanes (pcuHr): 9.37
Total Delay Over All Lanes(pcuHr): 9.37

Cycle Time (s): 90

APPENDIX 10: Junction 12 - M1 Junction 23 Model Outputs

Basic Results Summary

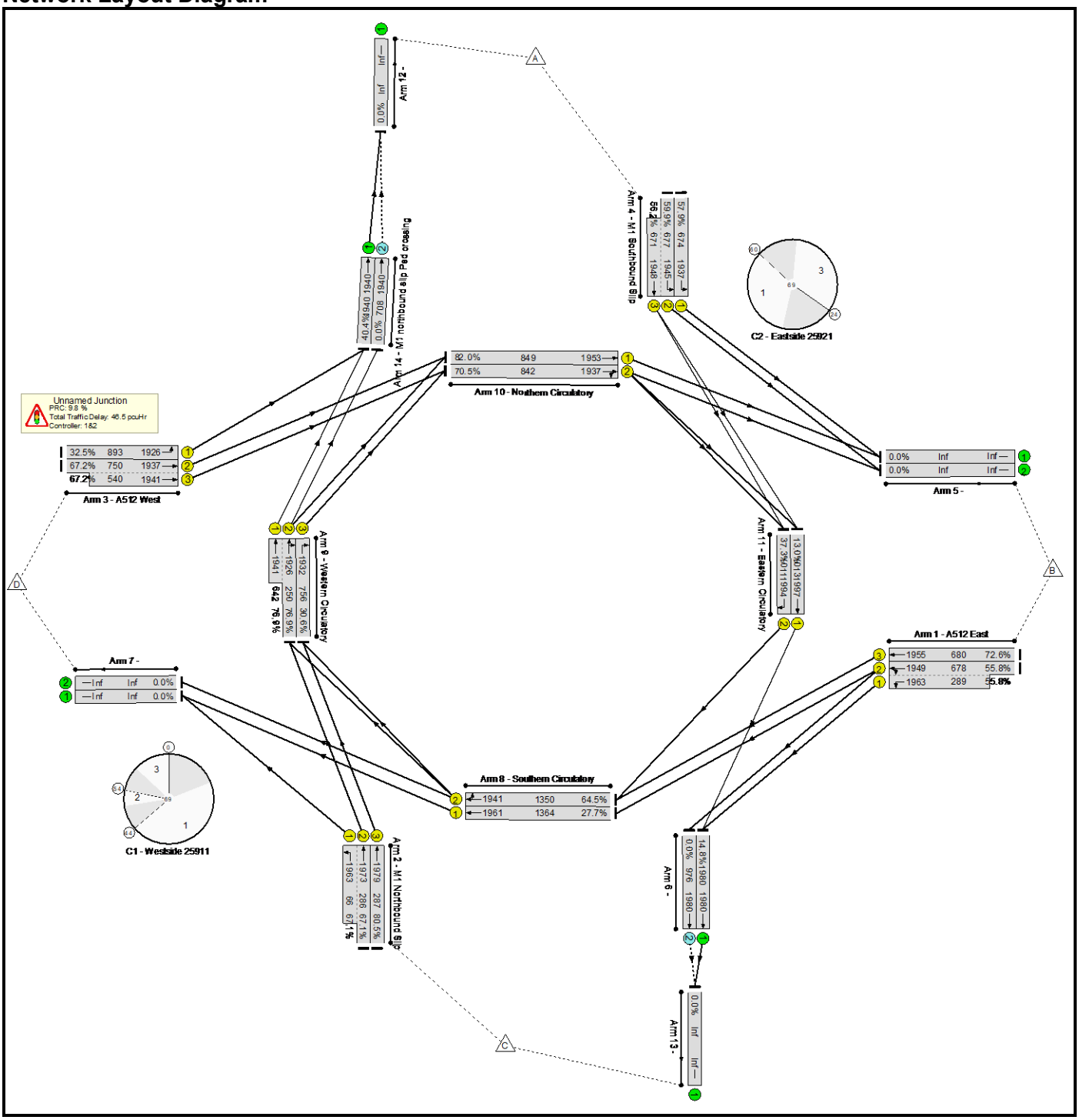
User and Project Details

Project:	**East Midlands Gateway 2**
Title:	**M1 Junction 23**
Location:	
Client:	SEGRO
Site Ref(s):	Junction 12
Date Started:	26/10/23
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	M1 Junction 23 (BASE ONLY).lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Basic Results Summary

Scenario 1: 'AM Base' (FG1: '2022 Am', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

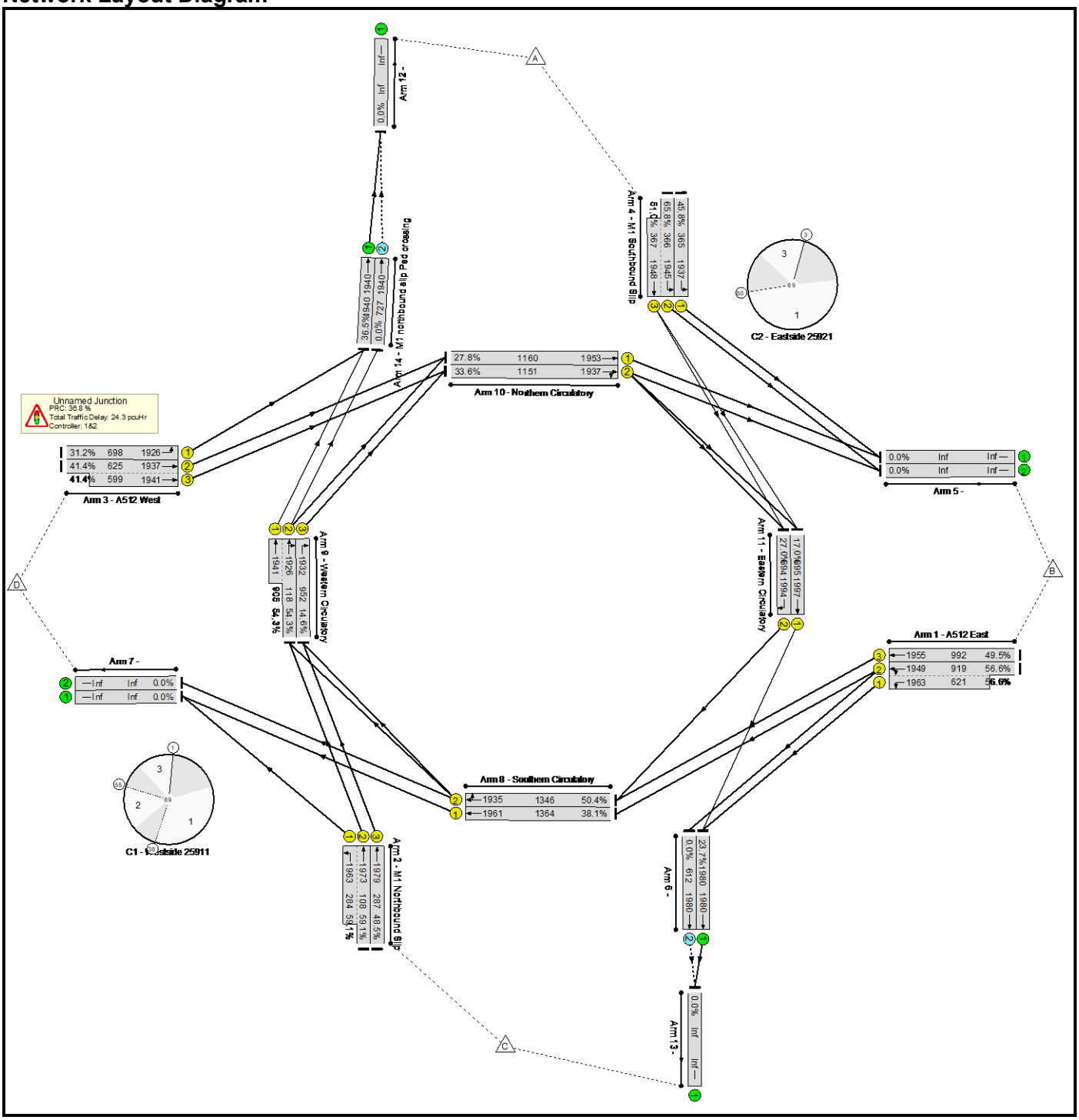
Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	**82.0%**	-	-
Unnamed Junction	-	**82.0%**	-	-
1/2+1/1	A512 East Left Ahead	55.8 : 55.8%	21.7	6.4
1/3	A512 East Ahead	72.6%	29.2	9.5
2/2+2/1	M1 Northbound Slip Left Ahead	67.1 : 67.1%	42.9	4.5
2/3	M1 Northbound Slip Ahead	80.5%	58.7	6.2
3/1	A512 West Left	32.5%	14.7	3.7
3/2+3/3	A512 West Ahead	67.2 : 67.2%	17.1	8.0
4/1	M1 Southbound Slip Left	57.9%	24.7	6.8
4/2+4/3	M1 Southbound Slip Left Ahead	59.9 : 56.2%	21.5	7.0
6/1	Ahead	14.8%	1.1	0.1
6/2	Ahead	0.0%	0.0	0.0
8/1	Southern Circulatory Ahead	27.7%	17.2	6.6
8/2	Southern Circulatory Ahead Right	64.5%	13.4	9.9
9/2+9/1	Western Circulatory Right Ahead	76.9 : 76.9%	32.2	11.1
9/3	Western Circulatory Right	30.6%	6.8	0.6
10/1	Northern Circulatory Ahead	82.0%	20.9	14.4
10/2	Northern Circulatory Ahead Right	70.5%	18.3	11.3
11/1	Eastern Circulatory Ahead	13.0%	15.2	2.6
11/2	Eastern Circulatory Right	37.3%	3.5	0.4
14/1	M1 northbound slip Ped crossing Ahead	40.4%	1.6	0.3
14/2	M1 northbound slip Ped crossing Ahead	0.0%	0.0	0.0

C1 - Westside 25911	PRC for Signalled Lanes (%):	11.7	Total Delay for Signalled Lanes (pcuHr):	23.51	Cycle Time (s): 69
C2 - Eastside 25921	PRC for Signalled Lanes (%):	9.8	Total Delay for Signalled Lanes (pcuHr):	22.60	Cycle Time (s): 69
	PRC Over All Lanes (%):	9.8	Total Delay Over All Lanes(pcuHr):	46.53	

Basic Results Summary

Scenario 2: 'PM Base' (FG2: '2022 Pm', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: M1 Junction 23	-	**65.8%**	-	-
Unnamed Junction	-	**65.8%**	-	-
1/2+1/1	A512 East Left Ahead	56.6 : 56.6%	13.6	7.3
1/3	A512 East Ahead	49.5%	14.8	6.6
2/2+2/1	M1 Northbound Slip Left Ahead	59.1 : 59.1%	38.3	3.7
2/3	M1 Northbound Slip Ahead	48.5%	39.3	2.9
3/1	A512 West Left	31.2%	19.6	3.2
3/2+3/3	A512 West Ahead	41.4 : 41.4%	18.7	4.0
4/1	M1 Southbound Slip Left	45.8%	33.9	3.2
4/2+4/3	M1 Southbound Slip Left Ahead	65.8 : 51.0%	31.5	4.9
6/1	Ahead	23.7%	1.2	0.2
6/2	Ahead	0.0%	0.0	0.0
8/1	Southern Circulatory Ahead	38.1%	5.4	2.4
8/2	Southern Circulatory Ahead Right	50.4%	5.1	2.6
9/2+9/1	Western Circulatory Right Ahead	54.3 : 54.3%	12.2	9.2
9/3	Western Circulatory Right	14.6%	3.8	0.2
10/1	Northern Circulatory Ahead	27.8%	4.4	0.8
10/2	Northern Circulatory Ahead Right	33.6%	4.3	0.9
11/1	Eastern Circulatory Ahead	17.0%	17.6	2.3
11/2	Eastern Circulatory Right	27.0%	4.9	0.3
14/1	M1 northbound slip Ped crossing Ahead	36.5%	1.5	0.3
14/2	M1 northbound slip Ped crossing Ahead	0.0%	0.0	0.0

C1 - Westside 25911	PRC for Signalled Lanes (%):	52.4	Total Delay for Signalled Lanes (pcuHr):	11.56	Cycle Time (s): 69
C2 - Eastside 25921	PRC for Signalled Lanes (%):	36.8	Total Delay for Signalled Lanes (pcuHr):	12.32	Cycle Time (s): 69
	PRC Over All Lanes (%):	36.8	Total Delay Over All Lanes(pcuHr):	24.32	

APPENDIX 11: Junction 13 - A50 Junction 1 Model Outputs

Basic Results Summary

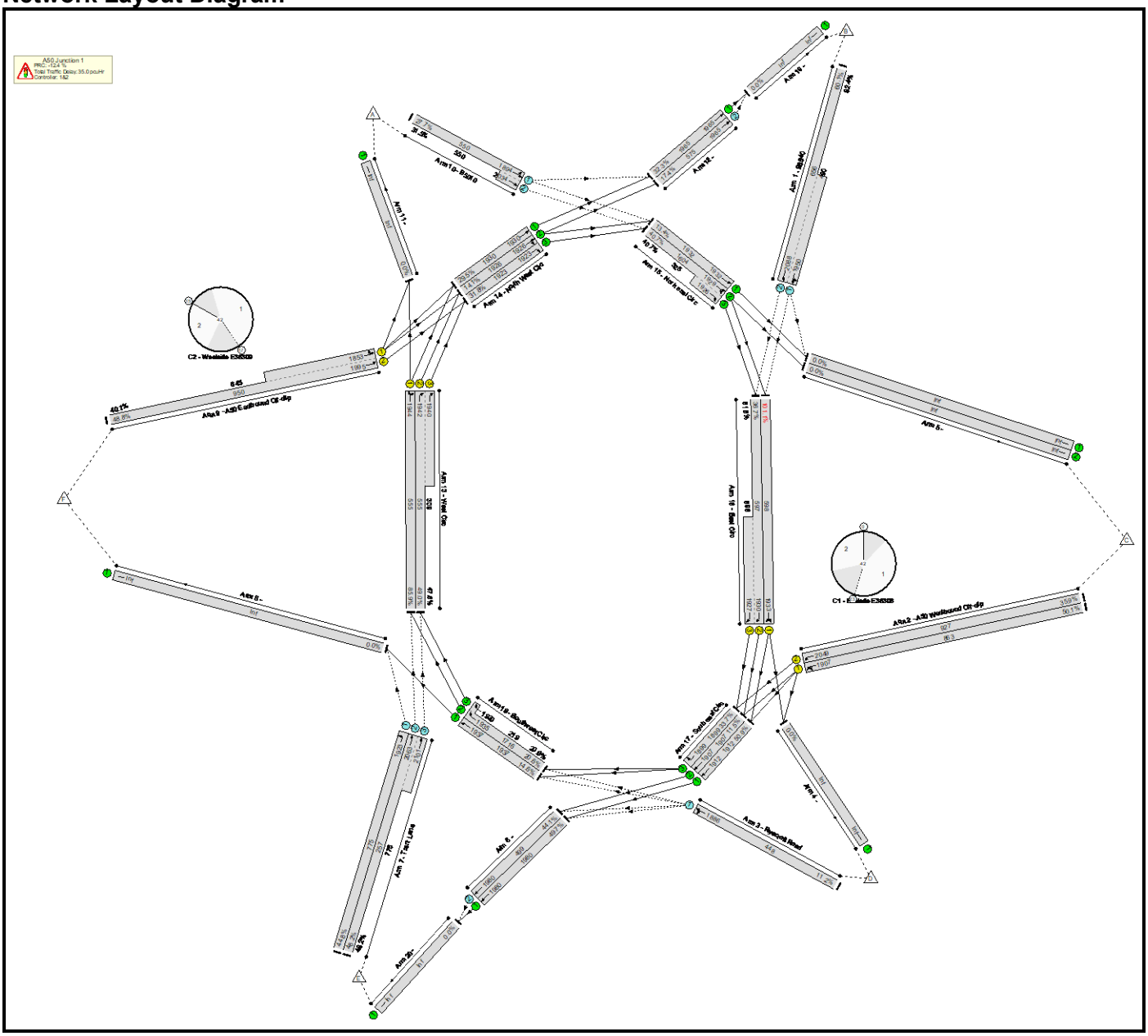
User and Project Details

Project:	**A50 Junction 1**
Title:	**A50 Junction 1**
Location:	
Client:	SEGRO
Site Ref(s):	Junction 13
Date Completed:	27/03/2024
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	A50 Junction 1 (BASE ONLY).lsg3x
Author:	Charlie Cresswell
Company:	
Address:	

Basic Results Summary

Scenario 1: '2023 Base AM' (FG1: '2023 Base Flows AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	-		-	-	-	-	-	-	**101.1%**	**3959**	**0**	**0**	**35.0**	-	-
A50 Junction 1	-	-	-		-	-	-	-	-	-	**101.1%**	**3959**	**0**	**0**	**35.0**	-	-
1/2+1/1	B6540 Left Ahead	O	-		-	-	-	798	2088:1950	656+490	60.1 : 82.4%	1596	0	0	1.5	6.6	4.1
2/1	A50 Westbound Off-slip Left Ahead	U	C1:A		1	18	-	432	1907	863	50.1%	-	-	-	1.5	12.3	4.0
2/2	A50 Westbound Off-slip Ahead	U	C1:A		1	18	-	333	2049	927	35.9%	-	-	-	1.0	10.6	2.8
3/1	Ryecroft Road Left Ahead	O	-		-	-	-	50	1886	448	11.2%	50	0	0	0.1	5.3	0.2
6/1	Ahead	U	-		-	-	-	990	1980	1980	49.7%	-	-	-	0.5	1.8	0.5
6/2	Ahead	O	-		-	-	-	220	1980	499	44.1%	220	0	0	0.5	8.7	2.7
7/1	Trent Lane Left	O	-		-	-	-	347	1923	775	44.8%	347	0	0	0.4	4.2	0.4
7/2+7/3	Trent Lane Ahead	O	-		-	-	-	498	2063:2101	257+775	48.2 : 48.2%	996	0	0	0.5	3.4	0.5
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	C2:A		1	19	-	723	1995:1853	950+645	48.8 : 40.1%	-	-	-	1.9	9.3	4.0
10/1+10/2	B5010 Left Ahead	O	-		-	-	-	325	1894:2034	550+550	27.7 : 31.5%	650	0	0	0.3	3.0	0.6
12/1	Ahead	U	-		-	-	-	634	1965	1965	32.3%	-	-	-	0.2	1.4	0.2
12/2	Ahead	O	-		-	-	-	100	1965	575	17.4%	100	0	0	0.1	3.8	0.1
13/1	West Circ Ahead Right	U	C2:B		1	11	-	477	1944	555	85.9%	-	-	-	4.8	36.4	7.4
13/2+13/3	West Circ Right	U	C2:B		1	11	-	419	1942:1940	555+309	49.0 : 47.5%	-	-	-	1.9	16.4	3.0

Basic Results Summary

14/1	North West Circ Ahead	U	-		-	-	-	569	1930	1930	29.5%	-	-	-	0.2	1.3	0.2
14/2	North West Circ Ahead Right	U	-		-	-	-	272	1926	1926	14.1%	-	-	-	0.1	1.1	0.1
14/3	North West Circ Right	U	-		-	-	-	611	1923	1923	31.8%	-	-	-	0.2	1.4	1.3
15/1	Northeast Circ Ahead	U	-		-	-	-	259	1932	1932	13.4%	-	-	-	0.1	1.1	0.1
15/2+15/3	Northeast Circ Ahead Right	U	-		-	-	-	784	1929:1926	1604+325	40.7 : 40.7%	-	-	-	0.3	1.6	0.3
16/1	East Circ Ahead Ahead2	U	C1:B		1	12	-	605	1933	598	101.1%	-	-	-	15.8	94.1	21.2
16/2+16/3	East Circ Ahead	U	C1:B		1	12	-	526	1930:1927	597+596	36.7 : 51.5%	-	-	-	2.1	14.4	3.3
17/1	Southeast Circ Ahead	U	-		-	-	-	980	1912	1912	50.9%	-	-	-	0.5	1.9	0.5
17/2	Southeast Circ Ahead	U	-		-	-	-	220	1907	1907	11.5%	-	-	-	0.1	1.1	0.1
17/3	Southeast Circ Right	U	-		-	-	-	640	1899	1899	33.7%	-	-	-	0.3	1.4	0.3
18/1	Southwest Circ Ahead	U	-		-	-	-	282	1937	1937	14.6%	-	-	-	0.1	1.1	0.1
18/2+18/3	Southwest Circ Right	U	-		-	-	-	398	1935:1930	1716+219	20.6 : 20.6%	-	-	-	0.1	1.2	0.1

C1 - Eastsde E36308
C2 - Westside E36309

PRC for Signalled Lanes (%): -12.4
PRC for Signalled Lanes (%): 4.8
PRC Over All Lanes (%): -12.4

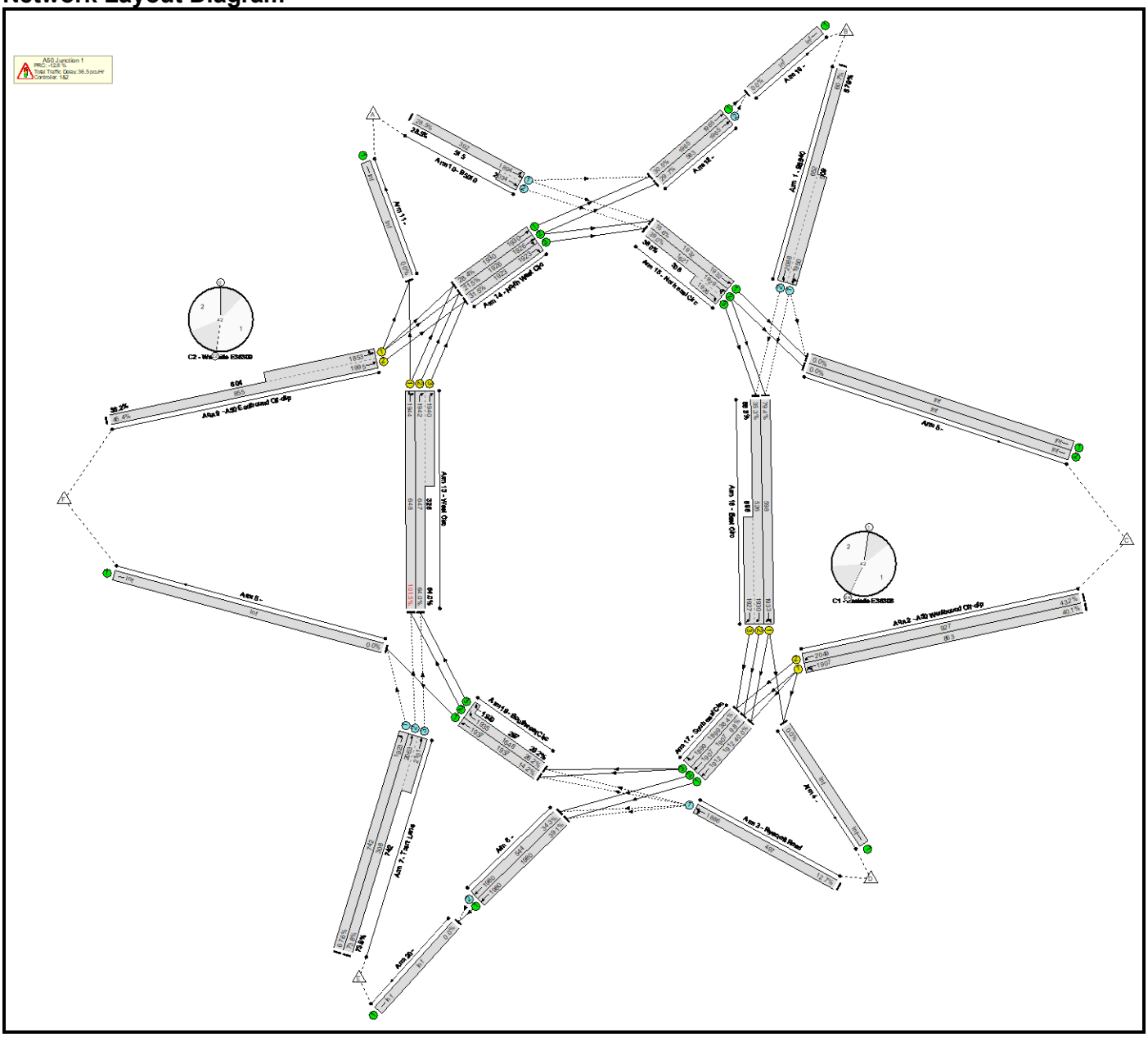
Total Delay for Signalled Lanes (pcuHr): 20.37
Total Delay for Signalled Lanes (pcuHr): 8.60
Total Delay Over All Lanes(pcuHr): 35.02

Cycle Time (s): 42
Cycle Time (s): 42

Basic Results Summary

Scenario 2: '2023 Base PM' (FG2: '2023 Base Flows PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A50 Junction 1	-	-	-		-	-	-	-	-	-	**101.5%**	**4372**	**0**	**0**	**36.5**	-	-
A50 Junction 1	-	-	-		-	-	-	-	-	-	**101.5%**	**4372**	**0**	**0**	**36.5**	-	-
1/2+1/1	B6540 Left Ahead	O	-		-	-	-	691	2088:1950	652+509	60.7 : 57.9%	1382	0	0	0.9	4.8	2.3
2/1	A50 Westbound Off-slip Left Ahead	U	C1:A		1	18	-	346	1907	863	40.1%	-	-	-	1.1	11.2	3.0
2/2	A50 Westbound Off-slip Ahead	U	C1:A		1	18	-	400	2049	927	43.2%	-	-	-	1.2	11.2	3.5
3/1	Ryecroft Road Left Ahead	O	-		-	-	-	63	1886	497	12.7%	63	0	0	0.1	5.1	0.2
6/1	Ahead	U	-		-	-	-	775	1980	1980	39.1%	-	-	-	0.3	1.5	0.3
6/2	Ahead	O	-		-	-	-	187	1980	544	34.3%	187	0	0	0.3	5.9	2.1
7/1	Trent Lane Left	O	-		-	-	-	501	1923	742	67.6%	501	0	0	1.0	7.4	1.3
7/2+7/3	Trent Lane Ahead	O	-		-	-	-	774	2063:2101	308+742	73.8 : 73.8%	1548	0	0	1.4	6.5	2.2
9/2+9/1	A50 Eastbound Off-slip Left Ahead	U	C2:A		1	17	-	616	1995:1853	855+604	46.4 : 36.2%	-	-	-	1.8	10.4	3.6
10/1+10/2	B5010 Left Ahead	O	-		-	-	-	259	1894:2034	392+515	28.5 : 28.5%	518	0	0	0.3	3.7	0.6
12/1	Ahead	U	-		-	-	-	606	1965	1965	30.5%	-	-	-	0.2	1.3	0.2
12/2	Ahead	O	-		-	-	-	173	1965	583	29.7%	173	0	0	0.2	4.6	1.3
13/1	West Circ Ahead Right	U	C2:B		1	13	-	658	1944	648	101.5%	-	-	-	17.9	98.2	23.4
13/2+13/3	West Circ Right	U	C2:B		1	13	-	622	1942:1940	647+325	64.0 : 64.0%	-	-	-	2.8	16.1	4.7

Basic Results Summary

14/1	North West Circ Ahead	U	-		-	-	-	555	1930	1930	28.4%	-	-	-	0.2	1.3	0.2
14/2	North West Circ Ahead Right	U	-		-	-	-	414	1926	1926	21.5%	-	-	-	0.1	1.2	0.1
14/3	North West Circ Right	U	-		-	-	-	605	1923	1923	31.5%	-	-	-	0.2	1.4	1.3
15/1	Northeast Circ Ahead	U	-		-	-	-	302	1932	1932	15.6%	-	-	-	0.1	1.1	0.1
15/2+15/3	Northeast Circ Ahead Right	U	-		-	-	-	752	1929:1926	1621+308	39.0 : 39.0%	-	-	-	0.3	1.5	0.3
16/1	East Circ Ahead Ahead2	U	C1:B		1	12	-	475	1933	598	79.4%	-	-	-	2.9	22.0	6.4
16/2+16/3	East Circ Ahead	U	C1:B		1	12	-	516	1930:1927	526+596	35.3 : 55.3%	-	-	-	2.1	14.7	3.5
17/1	Southeast Circ Ahead	U	-		-	-	-	764	1912	1912	40.0%	-	-	-	0.3	1.6	0.3
17/2	Southeast Circ Ahead	U	-		-	-	-	187	1907	1907	9.8%	-	-	-	0.1	1.0	0.1
17/3	Southeast Circ Right	U	-		-	-	-	730	1899	1899	38.4%	-	-	-	0.3	1.5	0.8
18/1	Southwest Circ Ahead	U	-		-	-	-	276	1937	1937	14.2%	-	-	-	0.1	1.1	0.1
18/2+18/3	Southwest Circ Right	U	-		-	-	-	506	1935:1930	1648+287	26.2 : 26.2%	-	-	-	0.2	1.3	0.2

C1 - Eastsde E36308	PRC for Signalled Lanes (%):	13.4	Total Delay for Signalled Lanes (pcuHr):	7.33	Cycle Time (s): 42
C2 - Westside E36309	PRC for Signalled Lanes (%):	-12.8	Total Delay for Signalled Lanes (pcuHr):	22.51	Cycle Time (s): 42
	PRC Over All Lanes (%):	-12.8	Total Delay Over All Lanes(pcuHr):	36.55	

APPENDIX 12: Junction 14 - M1 Junction 25 Model Outputs

Basic Results Summary

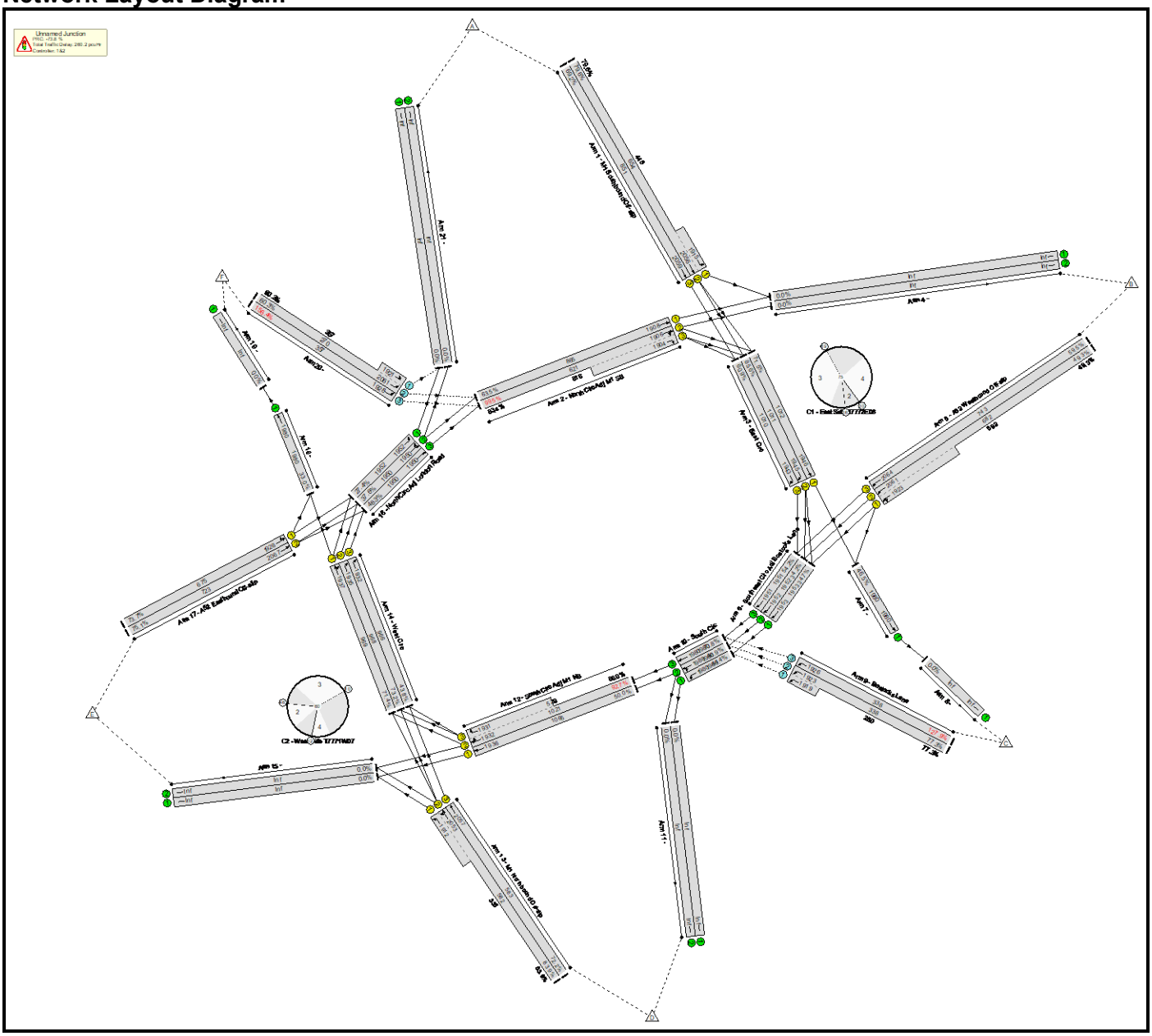
User and Project Details

Project:	**M1 Junction 25**
Title:	**EMG2**
Location:	
Client:	SERGO
Date Completed:	27/03/24
Checked By:	Vibeeshan Devaharan
Additional detail:	
File name:	240514 M1 Junction 25 (BASE ONLY).lsg3x
Author:	Charlie Cresswell
Company:	BWB
Address:	

Basic Results Summary

Scenario 1: '2022 AM' (FG1: '2022 AM Base', Plan 1: 'Network Control Plan 1 AM')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: EMG2	-	**156.4%**	-	-
Unnamed Junction	-	**156.4%**	-	-
1/2+1/1	M1 Southbound Off-slip Ahead Left	79.6 : 79.6%	24.7	11.4
1/3	M1 Southbound Off-slip Ahead	69.2%	24.9	11.1
2/1	North Circ Adj M1 SB Ahead	63.5%	21.4	9.6
2/2+2/3	North Circ Adj M1 SB Right Ahead	99.5 : 83.4%	29.3	16.3
3/1	East Circ Ahead	71.5%	19.7	14.4
3/2	East Circ Right	85.6%	20.5	19.3
3/3	East Circ Right	60.9%	34.5	13.4
5/2+5/1	A52 Westbound Off-slip Ahead Left	49.3 : 49.3%	21.1	6.0
5/3	A52 Westbound Off-slip Ahead	59.5%	25.5	8.2
6/1	Southeast Circ Adj Bostocks Lane Ahead	34.7%	1.4	0.3
6/2	Southeast Circ Adj Bostocks Lane Ahead	34.2%	1.4	2.5
6/3	Southeast Circ Adj Bostocks Lane Ahead	54.2%	2.0	5.5
7/1	Ahead	46.5%	1.7	0.4
9/2+9/1	Bostocks Lane Left	77.3 : 77.3%	21.9	4.6
9/3	Bostocks Lane Left	127.9%	453.1	74.2
10/1	South Circ Left	44.4%	1.6	0.4
10/2	South Circ Left Ahead	46.9%	1.7	0.4
10/3	South Circ Ahead	70.8%	3.1	1.8
12/1	South Circ Adj M1 NB Ahead	50.0%	11.8	6.0
12/2+12/3	South Circ Adj M1 NB Right Ahead	92.7 : 86.0%	22.1	18.1
13/2+13/1	M1 Northbound Off-slip Ahead Left	83.9 : 83.9%	31.2	10.1
13/3	M1 Northbound Off-slip Ahead	72.2%	30.3	7.6
14/1	West Circ Right Ahead	71.4%	17.2	11.5
14/2	West Circ Right	73.2%	22.5	12.3
14/3	West Circ Right	43.8%	31.3	7.4
16/1	North Circ Adj London Road Left	27.4%	1.3	0.2

Basic Results Summary

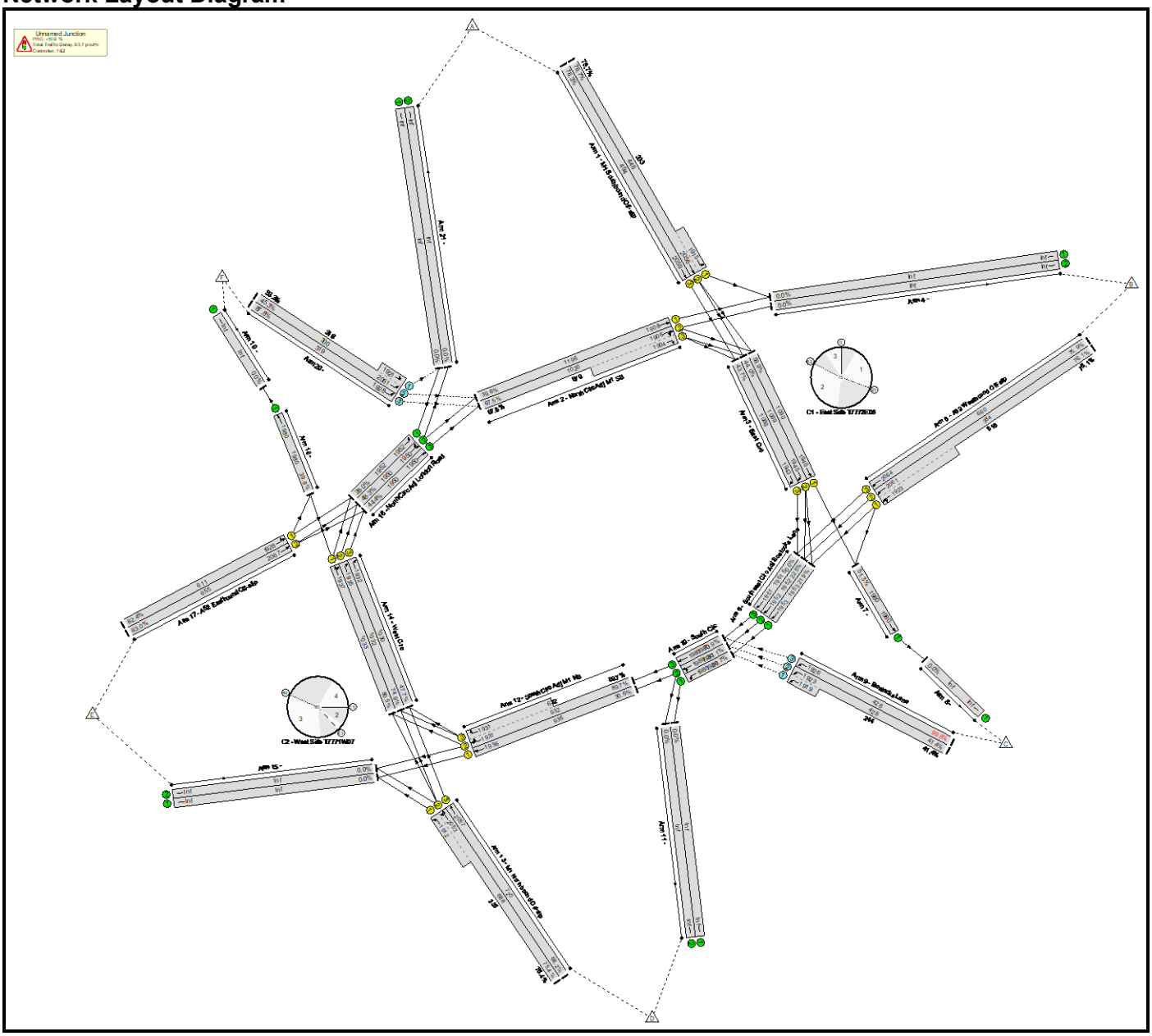
16/2	North Circ Adj London Road Ahead Left	37.6%	1.5	0.3
16/3	North Circ Adj London Road Ahead	48.3%	1.8	3.7
17/1	A52 Eastbound Off-slip Ahead Left	73.7%	27.1	8.6
17/2	A52 Eastbound Off-slip Ahead	75.1%	27.0	9.3
18/1	Ahead	33.0%	1.4	0.2
20/2+20/1	Left Left2	60.3 : 60.3%	12.9	2.3
20/3	Left	156.4%	717.4	129.9

C1 - East Side T7772E06	PRC for Signalled Lanes (%):	-10.6	Total Delay for Signalled Lanes (pcuHr):	45.83	Cycle Time (s): 75
C2 - West Side T7771W07	PRC for Signalled Lanes (%):	-3.0	Total Delay for Signalled Lanes (pcuHr):	39.77	Cycle Time (s): 60
	PRC Over All Lanes (%):	-73.8	Total Delay Over All Lanes(pcuHr):	260.15	

Basic Results Summary

Scenario 2: '2022 PM' (FG2: '2022 PM Base', Plan 2: 'Network Control Plan 2 PM')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: EMG2	-	**99.8%**	-	-
Unnamed Junction	-	**99.8%**	-	-
1/2+1/1	M1 Southbound Off-slip Ahead Left	78.7 : 78.7%	36.3	8.4
1/3	M1 Southbound Off-slip Ahead	78.3%	42.9	9.3
2/1	North Circ Adj M1 SB Ahead	39.6%	9.5	5.2
2/2+2/3	North Circ Adj M1 SB Right Ahead	67.5 : 67.5%	10.9	9.3
3/1	East Circ Ahead	58.9%	15.9	8.6
3/2	East Circ Right	44.0%	18.0	7.6
3/3	East Circ Right	43.7%	6.6	2.6
5/2+5/1	A52 Westbound Off-slip Ahead Left	76.1 : 76.1%	29.3	10.3
5/3	A52 Westbound Off-slip Ahead	75.9%	34.0	10.9
6/1	Southeast Circ Adj Bostocks Lane Ahead	21.9%	1.2	0.1
6/2	Southeast Circ Adj Bostocks Lane Ahead	22.5%	1.2	1.8
6/3	Southeast Circ Adj Bostocks Lane Ahead	50.0%	1.9	7.2
7/1	Ahead	51.3%	1.9	0.5
9/2+9/1	Bostocks Lane Left	41.4 : 41.4%	6.6	1.4
9/3	Bostocks Lane Left	99.8%	93.4	18.9
10/1	South Circ Left	26.7%	1.2	0.2
10/2	South Circ Left Ahead	31.1%	1.3	0.2
10/3	South Circ Ahead	70.9%	3.1	6.3
12/1	South Circ Adj M1 NB Ahead	30.6%	12.2	3.1
12/2+12/3	South Circ Adj M1 NB Right Ahead	89.7 : 89.7%	23.6	16.7
13/2+13/1	M1 Northbound Off-slip Ahead Left	75.4 : 75.4%	24.0	9.0
13/3	M1 Northbound Off-slip Ahead	68.2%	24.4	8.0
14/1	West Circ Right Ahead	80.5%	20.5	15.0
14/2	West Circ Right	74.9%	16.4	13.1
14/3	West Circ Right	47.7%	29.2	8.6
16/1	North Circ Adj London Road Left	28.0%	1.3	0.2

Basic Results Summary

16/2	North Circ Adj London Road Ahead Left	48.3%	1.8	0.5
16/3	North Circ Adj London Road Ahead	44.4%	1.7	0.4
17/1	A52 Eastbound Off-slip Ahead Left	82.4%	35.0	9.9
17/2	A52 Eastbound Off-slip Ahead	83.0%	34.5	10.6
18/1	Ahead	39.8%	1.5	0.3
20/2+20/1	Left Left2	45.3 : 53.3%	12.0	1.8
20/3	Left	87.8%	48.1	5.6

C1 - East Side T7772E06	PRC for Signalled Lanes (%):	14.3	Total Delay for Signalled Lanes (pcuHr):	32.53	Cycle Time (s):	75
C2 - West Side T7771W07	PRC for Signalled Lanes (%):	0.3	Total Delay for Signalled Lanes (pcuHr):	40.49	Cycle Time (s):	60
	PRC Over All Lanes (%):	-10.9	Total Delay Over All Lanes(pcuHr):	93.73		

APPENDIX 6: EMFM Base Year Model Review (document reference EMFM 2019 – East Midlands Gateway Phase 2: Base Year Model Review v1.1)



AECOM

EMFM 2019

East Midlands Gateway Phase 2: Base Year Model Review

Delivering a better world

Quality Information

Prepared by	Checked by	Approved by
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Revision History

Revision	Revision date	Details	Authorised	Name	Position
v1.0	2022-11-04	For Issue	Yes	Mark Dazeley	Regional Director
v1.1	2022-11-11	For Issue – minor text update	Yes	Mark Dazeley	Regional Director

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Table of Contents

Section 1 – Overview 4
1.1 Introduction 4
1.2 Report Structure 5
Section 2 – Zone System and Network Structure 6
2.1 Introduction 6
2.2 Zone System 6
2.3 EMFM Highway Base Year Model Network Coding 8
Section 3 – Base Year Model Performance 11
3.1 Introduction 11
3.2 EMFM Highway Base Year Model Screenline / Cordon Performance 11
3.3 EMFM Highway Base Year Model Link Flow Performance 14
3.4 EMFM Highway Base Year Model Journey Time Performance 21
Section 4 – Summary 24
Appendix A Journey Time Route Performance 25

List of Tables

Table 3.1: Revised Screenline Flow Acceptability Criteria 11
Table 3.2: Screenline and Cordon Performance for the EMFM 11
Table 3.3: Screenline and Cordon Performance in the Vicinity of the Proposed Development 13
Table 3.4: Link Flow Performance for the EMFM 15
Table 3.5: Link Flow Performance – A453 and East Midlands Airport 17
Table 3.6: Link Flow Performance – Strategic Road Network 19
Table 3.7: Journey Time Performance for the EMFM 21
Table 3.8: Journey Time Performance in the Vicinity of the Proposed Development 23

List of Figures

Figure 1.1: Location of Proposed Development 4
Figure 2.1: Highway Model Zone System – EMFM 7
Figure 2.2: Highway Model Zone System – North-West Leicestershire / East Midlands Gateway Phase 2 Area 7
Figure 2.3: Overview of the Highway Network – EMFM 8
Figure 2.4: Overview of the Highway Network – East Midlands Gateway Phase 2 Area 9
Figure 2.5: Junction Coding – Strategic Junctions 10
Figure 3.1: Screenlines and Cordons for the EMFM 12
Figure 3.2: Screenlines and Cordons in the Vicinity of the Proposed Development 12
Figure 3.3: Link Count Locations 14
Figure 3.4: Link Flow Performance for the EMFM in the AM Peak Hour 15
Figure 3.5: Link Flow Performance for the EMFM in the PM Peak Hour 16
Figure 3.6: Observed Count Locations – A453 and East Midlands Airport 18
Figure 3.7: Observed Count Locations – Strategic Road Network 20
Figure 3.8: Journey Time Routes used in the EMFM 22
Figure 3.9: Journey Time Routes in the Vicinity of the Proposed Development 22

Section 1 – Overview

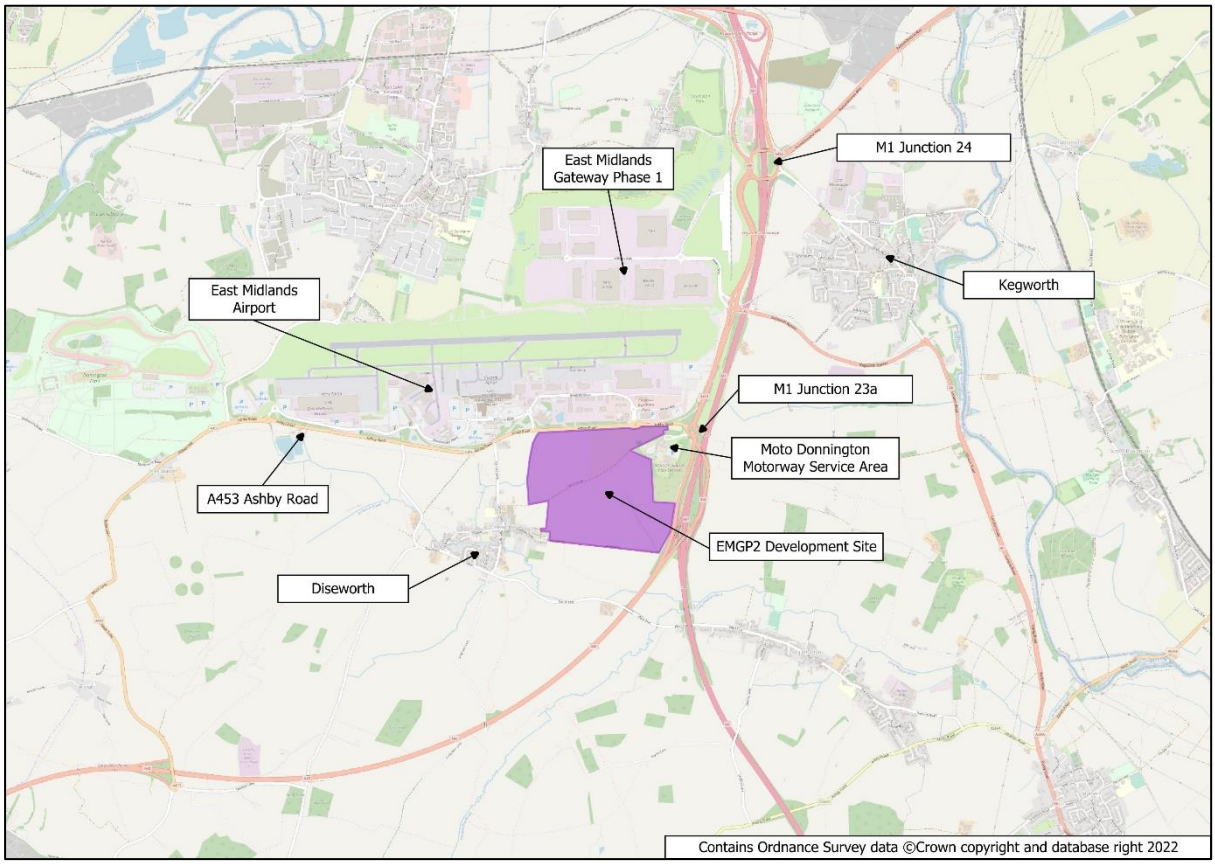
1.1 Introduction

1.1.1 The East Midlands Gateway Phase 2 development is a proposed employment development of mixed B2 (general industrial) and B8 (storage or distribution) use, with capacity for 300,000m^2 gross floor area of industrial use, comprising 240,000m^2 B8 and 60,000m^2 B2.

1.1.2 The development site is located to the south of East Midlands Airport in Leicestershire and west of the A42 and is expected to build out by 2031.

1.1.3 Figure 1.1 shows an indication of the location of the proposed development, denoted by the area shaded in purple. The proposed development has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. The M1 Junction 23a lies to the east of the site with the Moto Donnington Motorway Service Area (MSA) directly abutting to the north-east.

Figure 1.1: Location of Proposed Development[1]



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1.1.4 AECOM has been commissioned to undertake strategic modelling to assess the potential traffic impacts of the proposed development using the East Midlands Freeport Model (EMFM). The first stage of this commission is to undertake a review of the EMFM base year model.

1.1.5 The base year of the EMFM is 2019, and it is a highway assignment model (for the AM Peak and PM Peak hours), with its demand derived from the more extensive Pan-Regional Transport Model (PRTM 2019), though the EMFM has greater network and zonal density in the vicinity of the Freeport sites. The EMFM uses the latest in-draft November 2022 TAG databook.

[1] Figure 1, Technical Note 1 – Transport Scoping Note, East Midlands Gateway Phase 2 (EMG-BWB-GEN-XX-RP-TR-0001_TN1 Transport Scoping Note-S1-P3.pdf), provided as part of the information pack with the PRTM Development Form for East Midlands Gateway Phase 2 (220701 EMGP2 PRTM Development Form v1.2.docx)

1.1.6 The EMFM is derived from a cordon extract from the Pan-Regional Transport Model 2019 (PRTM 2019). The highway simulation network of the EMFM has been extended northward and model zones have been disaggregated for zones outside Leicestershire to provide greater detail in the East Midlands Freeport area. Figure 2.1, Figure 2.2 and Figure 2.3 provide an overview of the EMFM zone system and network structure.

1.2 Report Structure

1.2.1 Following the introduction, this report contains the following sections:

- Section 2 details the review of the EMFM zone system and network structure in the vicinity of the proposed East Midlands Gateway Phase 2 development;
- Section 3 details the review of the EMFM base year model performance compared with observed data;
- Section 4 provides a summary of the base year model review; and
- Appendix A provides journey time validation graphs for routes in the vicinity of the proposed East Midlands Gateway Phase 2 development.

Section 2 – Zone System and Network Structure

2.1 Introduction

2.1.1 This section details the review of the base year (2019) EMFM highway model in the vicinity of the proposed East Midlands Gateway Phase 2 development, which includes:

- a review of the model zone system in the vicinity of the proposed development; and
- a review of the base year highway network coding in the vicinity of the proposed development, including:
  - the A453 between the Tonge Interchange with the A42 and the interchange with the A42 and M1 Junction 23a;
  - the M1 between Junction 23 and Junction 24;
  - the A42 / A453 junction (Tonge Interchange); and
  - the A50 Junction 1.

2.2 Zone System

2.2.1 The existing zoning for the EMFM is largely defined by existing land-use and 2011 Census geography.

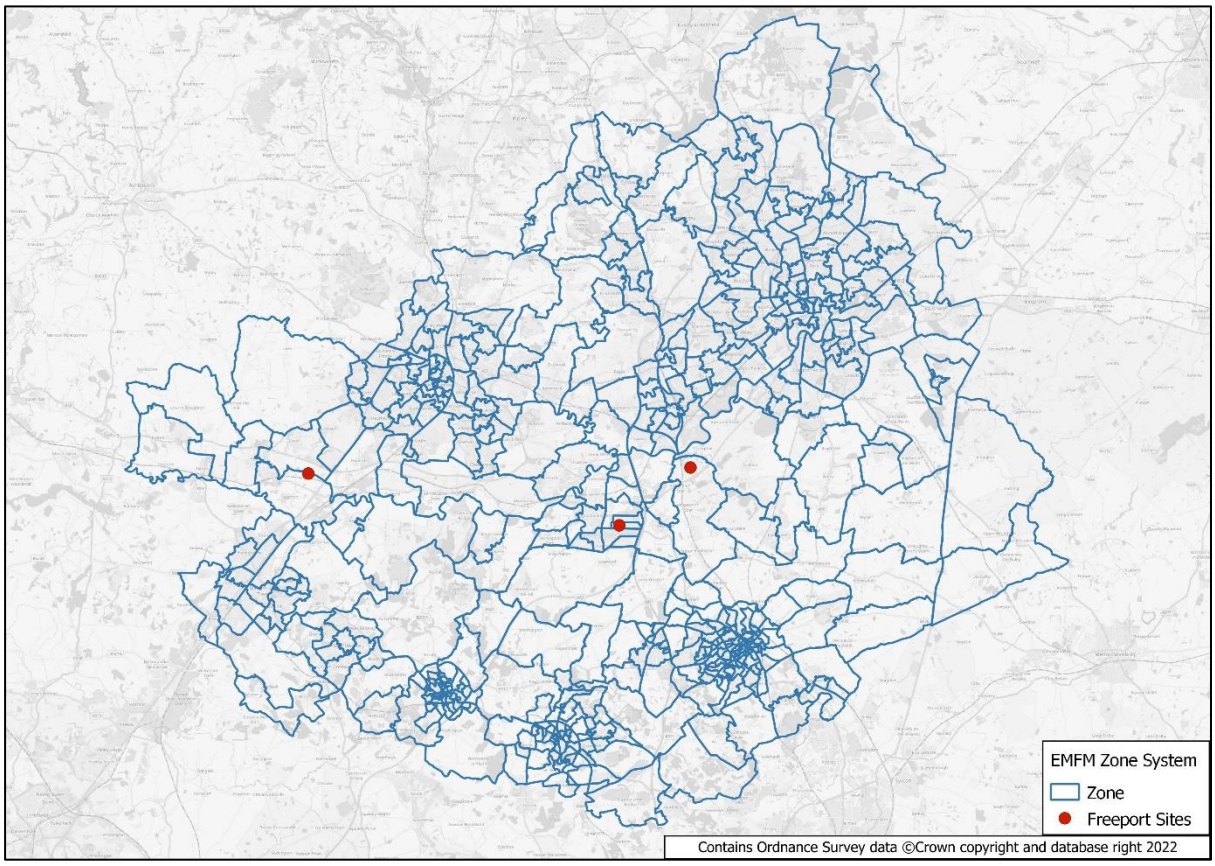
2.2.2 Figure 2.1 shows an overview of the EMFM highway model zone system. The granularity of the zone system is generally higher in urban areas, such as Loughborough, Derby and Nottingham, and larger zones are used for rural areas.

2.2.3 Figure 2.2 shows the EMFM highway model zone system in north-west Leicestershire, with East Midlands Gateway Phase 2 broadly in the centre. The zonal detail in the East Midlands Gateway Phase 2 area is considered suitable for this application of the EMFM, considering the existing underlying land-use.

2.2.4 The proposed development site is covered by the existing zone 7250. This zone covers a predominantly rural area with two small villages (Breedon on the Hill and Diseworth) and is connected to the highway network using a single access point onto the highway network at Breedon on the Hill. Considering the level of expected trip generation within zone 7250, predominantly from these small villages, this is judged to be appropriate zonal detail.

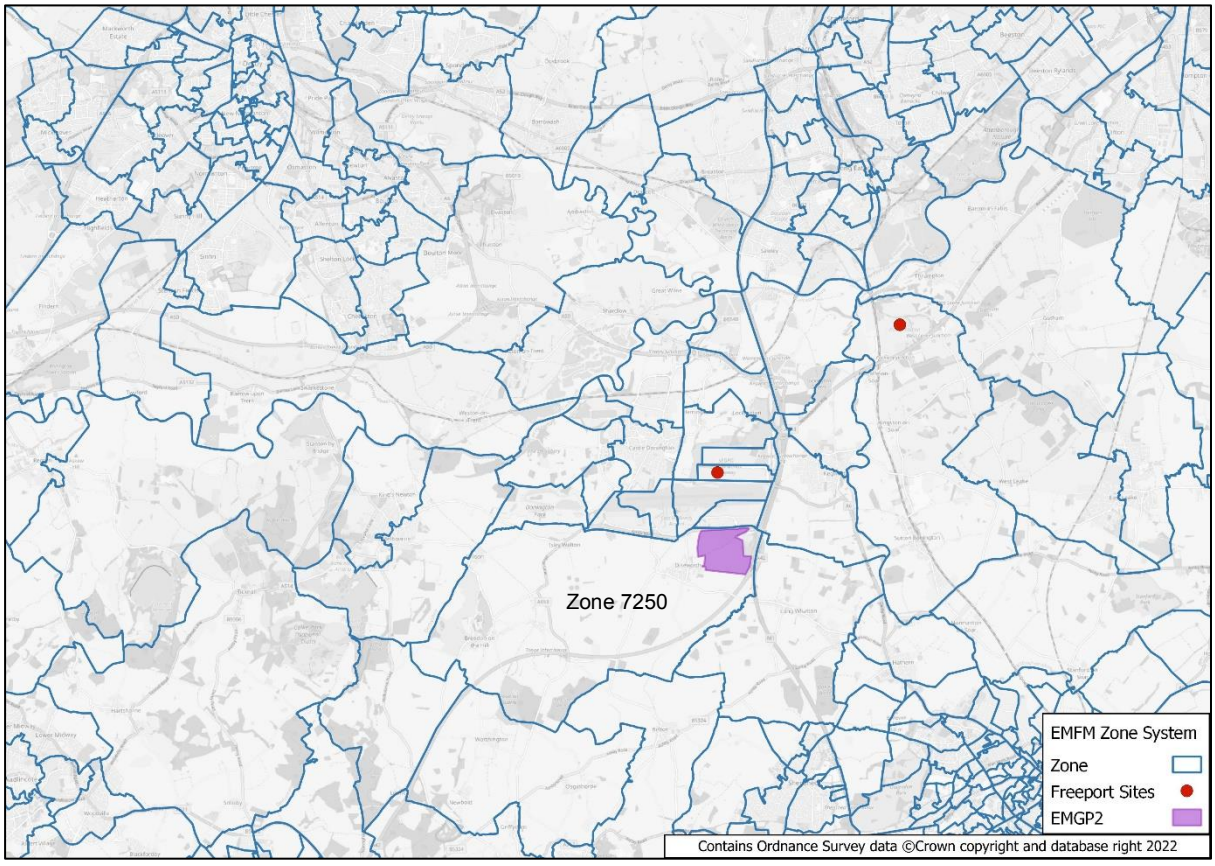
2.2.5 It is recommended that one or two development zone(s) be used to represent the proposed East Midlands Gateway Phase 2 development, thus separating the demand from the proposed development and that in the existing zone 7250.

Figure 2.1: Highway Model Zone System – EMFM



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Figure 2.2: Highway Model Zone System – North-West Leicestershire / East Midlands Gateway Phase 2 Area



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2.3 EMFM Highway Base Year Model Network Coding

2.3.1 Figure 2.3 shows the base year highway network of the EMFM. The EMFM highway network has been coded using the standards set out in the PRTM 2019 Coding Manual . All links (and junctions) are within the simulation area except for the urban areas of Nottingham and Derby which have been coded as buffer. As shown in Figure 2.3, all strategic roads within the model area are included in the EMFM highway network. The review of the existing base year network coding is focused on the East Midlands Gateway Phase 2 area, and specifically the roads and junctions that are likely to be affected by the proposed development.

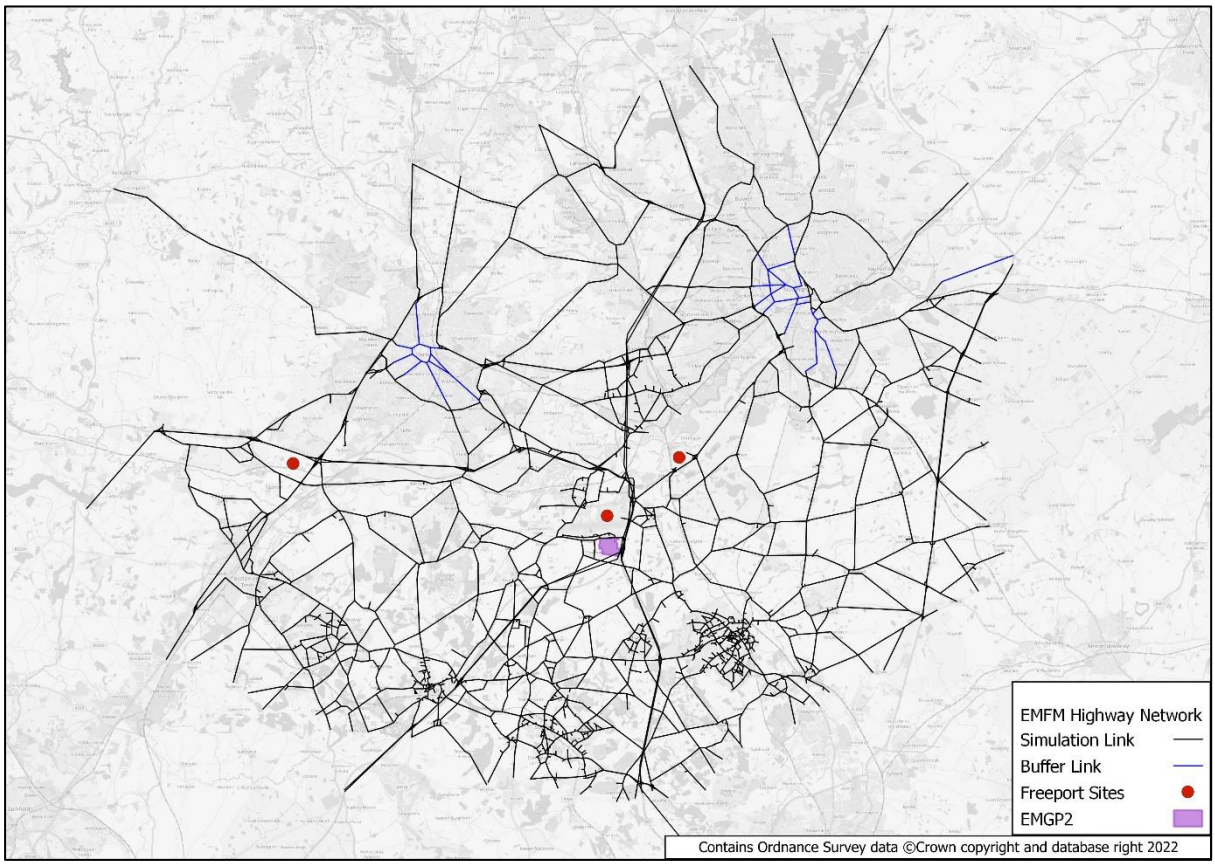
2.3.2 Figure 2.4 shows the highway network extent near the proposed East Midlands Gateway Phase 2 development. All strategic links and junctions near the proposed development are simulated and the network detail in the base year model is appropriate for the purpose of strategic assessment of the proposed development.

2.3.3 The highway network in the vicinity of the proposed development has been reviewed. The coded distances for the A453 (between the Tonge Interchange with the A42 and M1 Junction 23a) and the M1 (between Junction 23 and Junction 24) have been reviewed, and no significant discrepancies between the measured and coded distances have been found. Speed flow curves and link capacities for the A453 and the M1 have also been reviewed and found to be appropriately coded.

2.3.4 In terms of junction coding, junctions along the A453 (between the Tonge Interchange with the A42 and M1 Junction 23a) have been reviewed and are found to be representative of the 2019 road configurations. Most junctions are coded using a single node, and the junction type, the number of lanes, turning movements and flare lengths are satisfactory in terms of their accuracy and consistency with the Coding Manual.

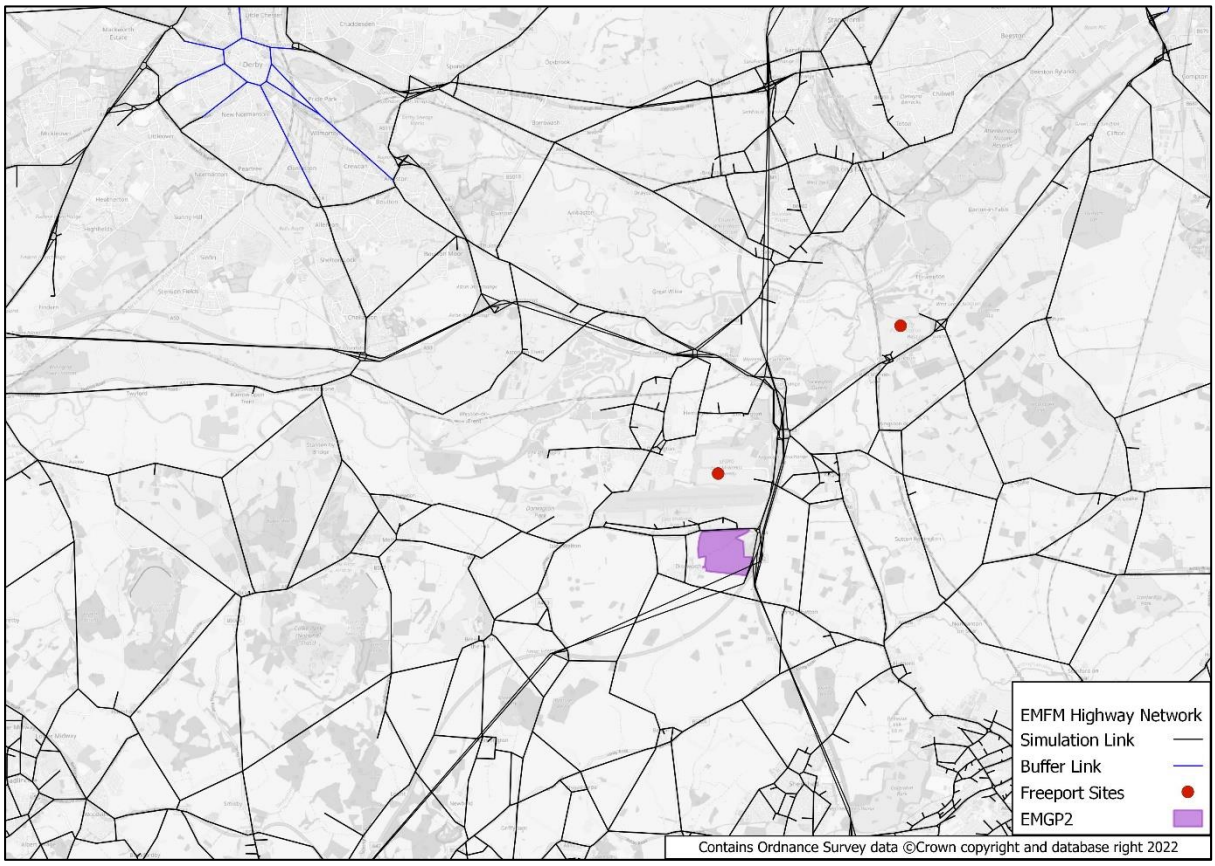
2.3.5 For the Finger Farm roundabout, A453 / A6 Kegworth Bypass roundabout, M1 Junction 24 and A50 Junction 1, these have been coded as ‘exploded’ roundabouts which provide a more accurate representation of the junctions in terms of number of lanes and capacity than a single roundabout node. Figure 2.5 shows the network coding structure for these junctions.

Figure 2.3: Overview of the Highway Network – EMFM



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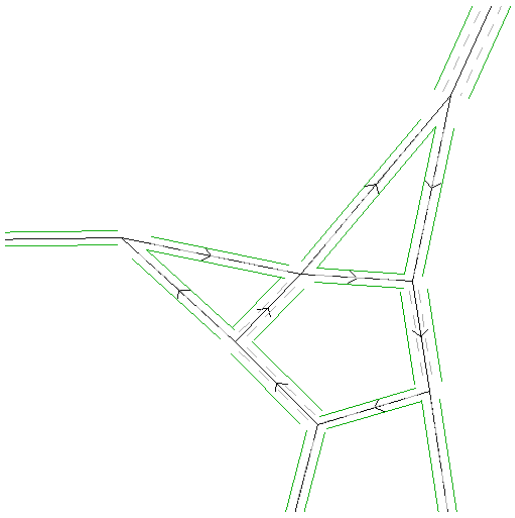
Figure 2.4: Overview of the Highway Network – East Midlands Gateway Phase 2 Area



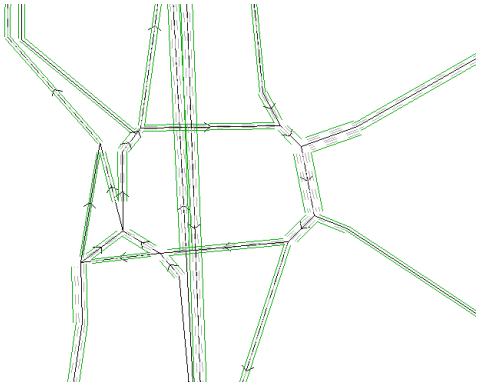
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Figure 2.5: Junction Coding – Strategic Junctions

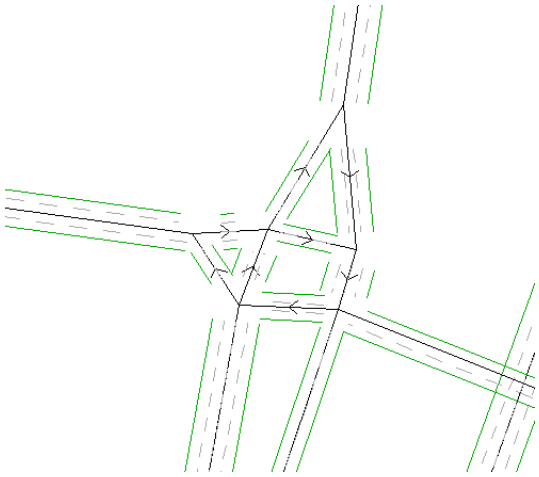
Finger Farm Roundabout



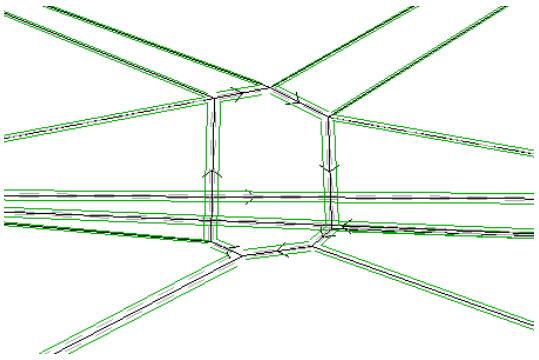
M1 Junction 24



A453 / A6 Kegworth Bypass roundabout



A50 Junction 1



Section 3 – Base Year Model Performance

3.1 Introduction

3.1.1 This section presents a summary of the performance of the EMFM base year model against the observed traffic counts and journey times in the vicinity of the proposed East Midlands Gateway Phase 2 development.

3.2 EMFM Highway Base Year Model Screenline / Cordon Performance

3.2.1 Guidelines set out in Table 1 of TAG Unit M3.1 on highway assignment modelling state that a modelled screenline meets TAG criteria if the differences between modelled flows and observed counts are less than 5% of the counts and that this should be true for 'all or nearly all screenlines'.

3.2.2 Screenlines are normally made up of 5 links or more. Within the EMFM, there are several screenlines / cordons with fewer than five count locations and / or with a relatively low observed flow for the screenline. It has been noted that such screenline / cordons tend to fail the 5% TAG criterion for screenline / cordon flows even when all individual links are within the TAG criteria. For this reason, the flow criterion has been adjusted for screenlines / cordons with fewer than five counts and / or low observed flows.

3.2.3 This revised criterion has been based on the individual link flow acceptability criteria and is given in Table 3.1. This uses the individual link flow TAG criteria for screenlines with one count, and the standard screenline criterion for screenlines with five or more counts, and interpolates between these two points for screenlines with between two and four counts. These revised criteria have been used in the assessment of the modelled screenline flows against observed data.

Table 3.1: Revised Screenline Flow Acceptability Criteria

Number of Counts on Screenline	Acceptability Guidelines
5 of more counts	Within ±5% or ±100 vehicles of observed count
4 counts	Within ±7.5% or ±100 vehicles of observed count
3 counts	Within ±10% or ±100 vehicles of observed count
2 counts	Within ±12.5% or ±100 vehicles of observed count
1 count	Within ±15% or ±100 vehicles of observed count

3.2.4 Figure 3.1 shows the screenlines and cordons for the EMFM and Table 3.2 provides a summary of the base year model performance by county. All screenlines (for all vehicles) meet the revised acceptability criteria for the PM Peak hour. For the AM Peak hour, one screenline in Leicestershire (Leicestershire County Screenline (North) Inbound) marginally fails, resulting in a 92.9% (13 out of 14) pass rate for Leicestershire.

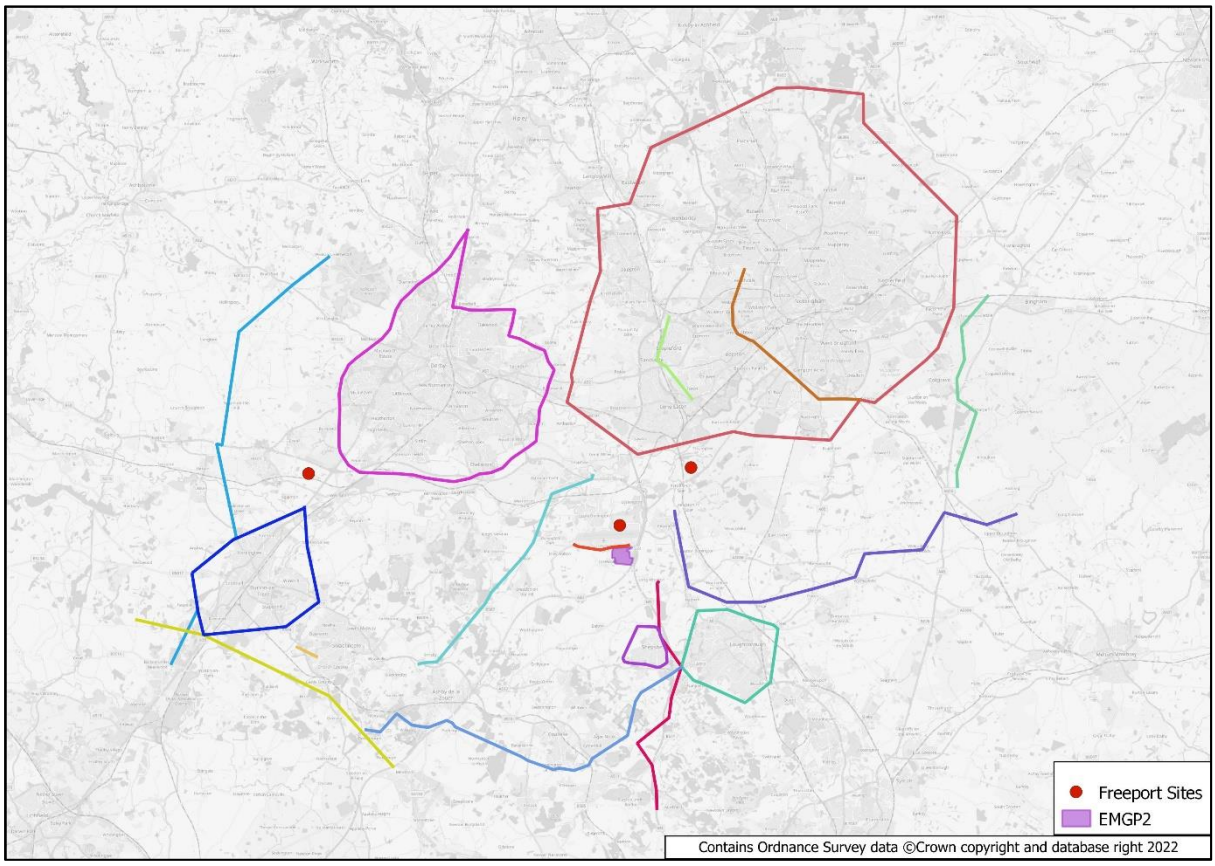
3.2.5 Overall, the screenline and cordon performance for the EMFM base year model is good and meets the TAG that 'all or nearly all screenlines' pass the acceptability criteria.

Table 3.2: Screenline and Cordon Performance for the EMFM

Area	# Slines	All Vehicles		Car		LGV		HGV	
		AM	PM	AM	PM	AM	PM	AM	PM
Nottinghamshire	8	100.0%	100.0%	87.5%	87.5%	100.0%	100.0%	100.0%	100.0%
Leicestershire	14	92.9%	100.0%	92.9%	100.0%	100.0%	100.0%	100.0%	100.0%
Derbyshire	8	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Staffordshire	2	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

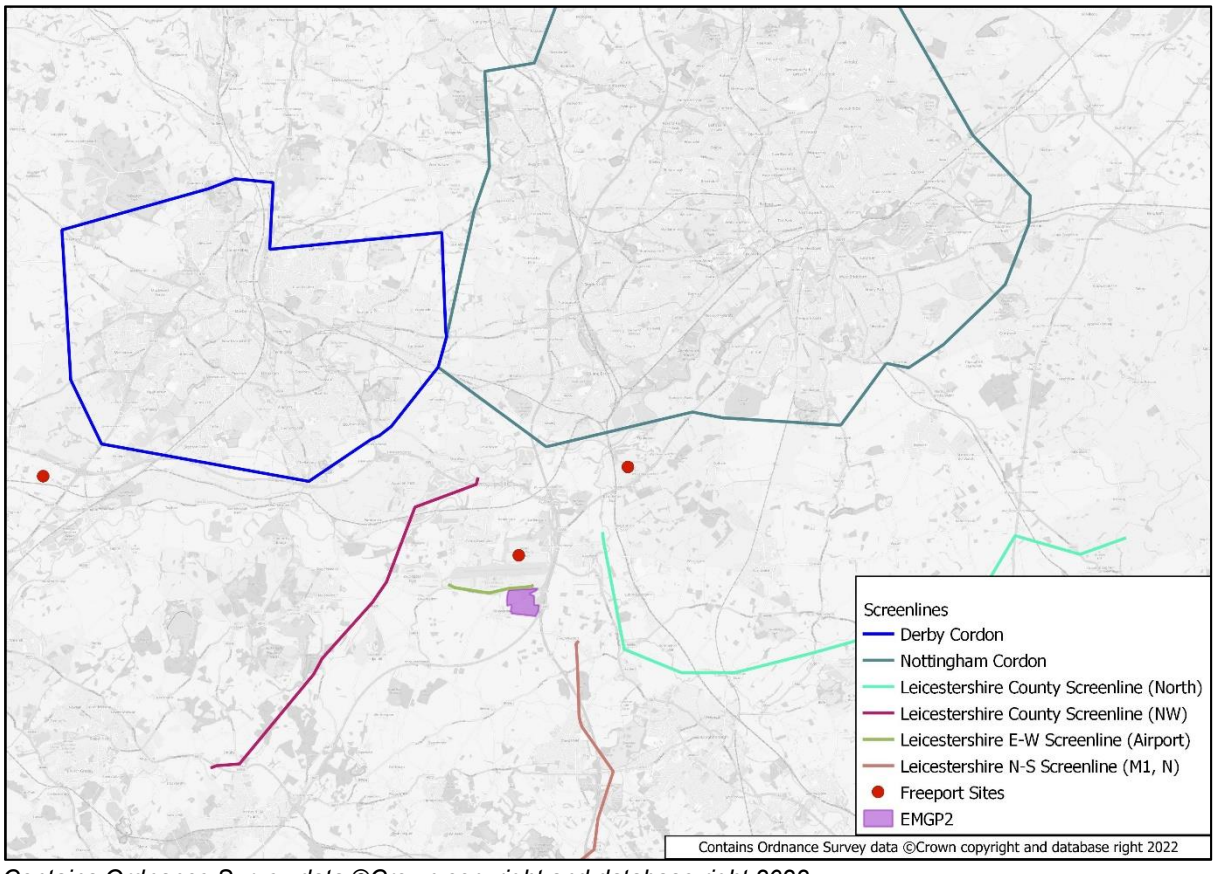
3.2.6 For the screenlines and cordons in the vicinity of the proposed East Midlands Gateway Phase 2 development (as shown in Figure 3.2), which include four screenlines in Leicestershire and two cordons for Nottingham and Derby, detailed base year model performance results are provided in Table 3.3. All screenlines and cordons considered meet the acceptability criteria in both directions and in both modelled peak hours except for the Leicestershire County Screenline (North) which marginally fails for southbound (i.e. inbound to Leicestershire) in the AM Peak hour.

Figure 3.1: Screenlines and Cordons for the EMFM



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Figure 3.2: Screenlines and Cordons in the Vicinity of the Proposed Development



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Table 3.3: Screenline and Cordon Performance in the Vicinity of the Proposed Development

Screenline / Cordon	# Counts	AM Peak					PM Peak				
		Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	Pass?	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	Pass?
Leicestershire E-W Screenline (Airport) Northbound	3	1,301	1,291	-10	-0.8%	✓	424	378	-46	-10.9%	✓
Leicestershire E-W Screenline (Airport) Southbound	3	415	397	-17	-4.2%	✓	1,150	1,089	-61	-5.3%	✓
Leicestershire County Screenline (North-West) Inbound	7	4,279	4,249	-30	-0.7%	✓	5,134	5,027	-107	-2.1%	✓
Leicestershire County Screenline (North-West) Outbound	7	4,843	4,659	-184	-3.8%	✓	4,946	4,921	-24	-0.5%	✓
Leicestershire County Screenline (North) Inbound	9	3,788	4,000	212	5.6%	×	3,988	3,978	-10	-0.3%	✓
Leicestershire County Screenline (North) Outbound	9	3,821	3,817	-4	-0.1%	✓	4,095	4,179	84	2.1%	✓
Leicestershire N-S Screenline (M1, North) Eastbound	9	5,604	5,628	24	0.4%	✓	4,721	4,678	-42	-0.9%	✓
Leicestershire N-S Screenline (M1, North) Westbound	9	3,945	3,971	26	0.7%	✓	5,275	5,340	65	1.2%	✓
Nottingham Cordon Inbound	25	23,816	3,094	-722	-3.0%	✓	24,787	24,194	-593	-2.4%	✓
Nottingham Cordon Outbound	25	22,567	21,739	-828	-3.7%	✓	24,524	23,316	-1208	-4.9%	✓
Derby Cordon Inbound	13	12,975	12,449	-525	-4.0%	✓	12,760	12,649	-110	-0.9%	✓
Derby Cordon Outbound	13	11,285	11,277	-8	-0.1%	✓	13,448	13,079	-370	-2.7%	✓

3.3 EMFM Highway Base Year Model Link Flow Performance

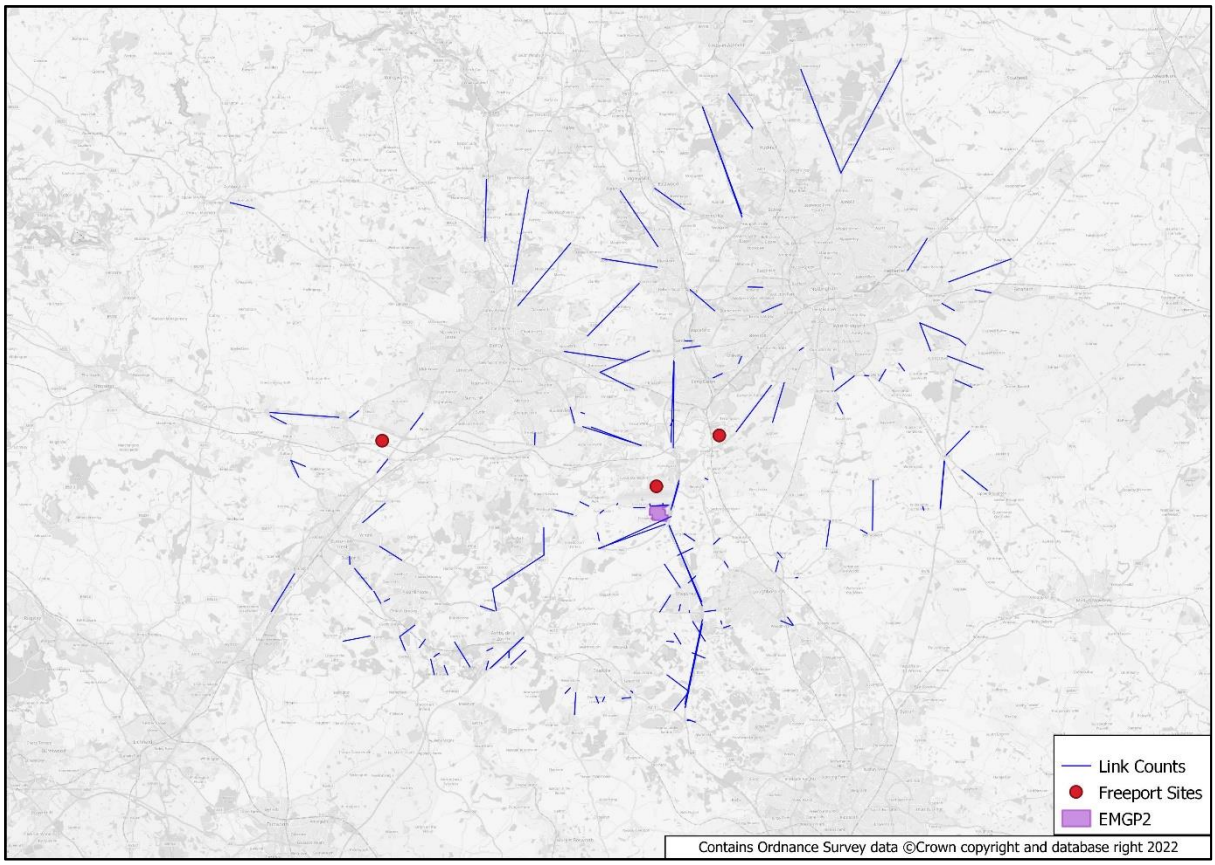
3.3.1 Guidelines set out in Table 2 of TAG Unit 3.1 on highway assignment modelling state that a modelled link flow meets TAG criteria if at least one of the two following conditions is met:

- Flow criteria:
  - modelled flow is within 100 vehicles for counts with an observed flow of less than 700 vehicles;
  - modelled flow is within 15% vehicles for counts with an observed flow between 700 and 2,700 vehicles; or
  - modelled flow is within 400 vehicles for counts with an observed flow greater than 2,700 vehicles.
- GEH criteria:
  - a GEH[2] value of less than 5.

3.3.2 Figure 3.3 shows the location of observed traffic count sites within the EMFM. Based on these data, 258 directional traffic counts have been used in the calibration of the model.

3.3.3 Table 3.4 provides a summary of the base year model link flow performance; and Figure 3.4 and Figure 3.5 illustrate the locations of the links passing TAG criteria in the AM Peak hour and PM Peak hour respectively. Table 3.4 shows that of the 258 counts used for the calibration of the model, the pass rates for all vehicles are 94.2% and 92.2% for the AM Peak hour and PM Peak hour respectively, exceeding the 85% TAG criteria guidelines.

Figure 3.3: Link Count Locations



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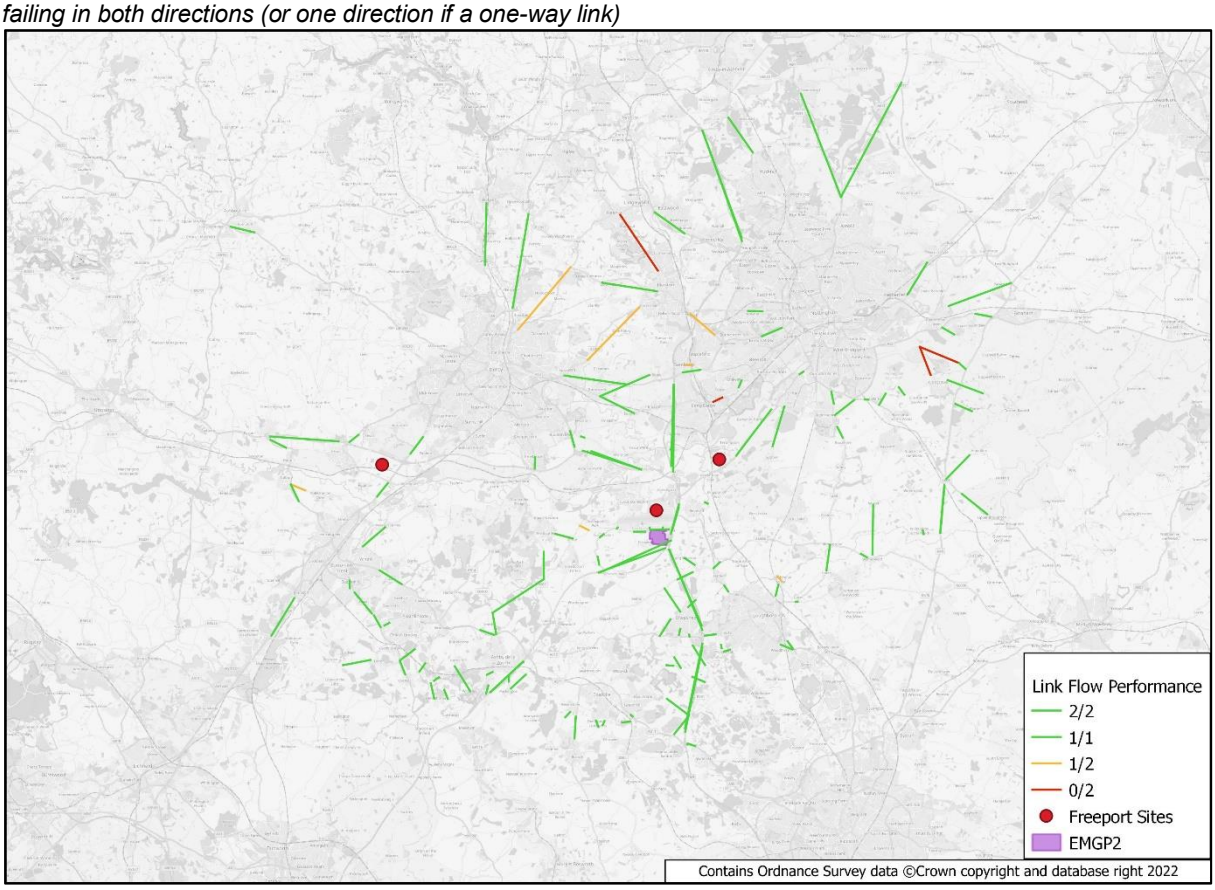
[2] $GEH = \sqrt{\frac{(M-O)^2}{(M+O)/2}}$, where M is the modelled flow and O is the observed flow

Table 3.4: Link Flow Performance for the EMFM

Area	# Counts	All Vehicles		Car		LGV		HGV	
		AM	PM	AM	PM	AM	PM	AM	PM
Nottinghamshire	78	85.9%	85.9%	87.2%	85.9%	98.7%	100.0%	100.0%	100.0%
Leicestershire	112	98.2%	96.4%	98.2%	95.5%	100.0%	100.0%	100.0%	100.0%
Derbyshire	36	97.2%	97.2%	97.2%	97.2%	100.0%	100.0%	100.0%	100.0%
Staffordshire	16	93.8%	81.3%	93.8%	81.3%	100.0%	100.0%	100.0%	100.0%
Individual Counts	16	100.0%	93.8%	100.0%	100.0%	100.0%	100.0%	93.8%	100.0%
Total	**258**	**94.2%**	**92.2%**	**94.6%**	**92.2%**	**99.6%**	**100.0%**	**99.6%**	**100.0%**

Figure 3.4: Link Flow Performance for the EMFM in the AM Peak Hour

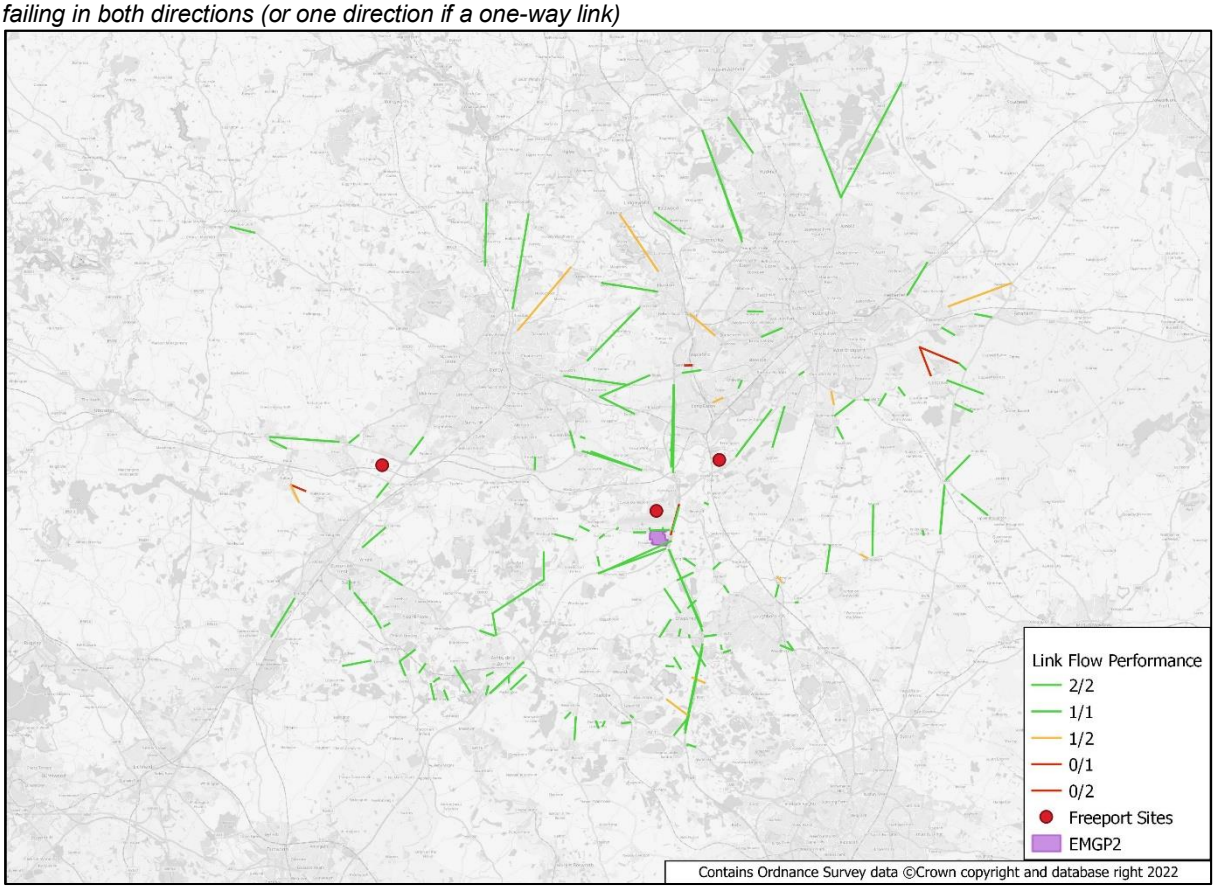
Green = passing in both directions (or one direction if a one-way link), orange = passing in one direction, red = failing in both directions (or one direction if a one-way link)



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Figure 3.5: Link Flow Performance for the EMFM in the PM Peak Hour

Green = passing in both directions (or one direction if a one-way link), orange = passing in one direction, red = failing in both directions (or one direction if a one-way link)



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3.3.4 Near the proposed East Midlands Gateway Phase 2 development, the counts on the A453, East Midlands Airport links and the Strategic Road Network (SRN) perform well. Table 3.5 shows that all counts on the A453 and East Midlands Airport links pass the acceptability criteria in both directions for the AM Peak and PM Peak hour. For the 14 counts considered for the SRN, Table 3.6 shows that all pass in the AM Peak hour and all but one (M1 northbound between Junction 23a and Junction 24) pass in the PM Peak hour. Figure 3.6 and Figure 3.7 show the observed count locations.

Table 3.5: Link Flow Performance – A453 and East Midlands Airport

Location	AM Peak						PM Peak					
	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	GEH	Pass?	Observed (veh)	Modelled (veh)	Observed (veh)	% Diff	GEH	Pass?
Ashby Road E of EMA Eastbound	567	562	-6	-1%	0.2	✓	649	593	-56	-9%	2.3	✓
Ashby Road E of EMA Westbound	619	505	-114	-18%	4.8	✓	520	513	-7	-1%	0.3	✓
Ashby Road West of A453 Junction Eastbound	582	703	121	21%	4.8	✓	1,024	1,014	-10	-1%	0.3	✓
Ashby Road West of A453 Junction Westbound	1,084	1,079	-5	0%	0.2	✓	589	633	45	8%	1.8	✓
Moor Lane Northbound	293	293	1	0%	0.0	✓	240	242	2	1%	0.1	✓
Moor Lane Southbound	224	224	0	0%	0.0	✓	289	288	-1	0%	0.1	✓
A453 Walton Hill Eastbound	440	438	-2	0%	0.1	✓	324	325	1	0%	0.0	✓
A453 Walton Hill Westbound	307	311	3	1%	0.2	✓	451	444	-7	-1%	0.3	✓
Ashby Road West of Grimes Gate Northbound	641	631	-10	-2%	0.4	✓	321	322	2	1%	0.1	✓
Ashby Road West of Grimes Gate Southbound	331	332	1	0%	0.1	✓	444	440	-3	-1%	0.2	✓
EMA Western Access Northbound	300	300	1	0%	0.0	✓	78	79	1	1%	0.1	✓
EMA Central Access Northbound	389	417	27	7%	1.4	✓	177	179	1	1%	0.1	✓
Hunter Road (Pegasus Park) Northbound	612	574	-38	-6%	1.6	✓	169	120	-49	-29%	4.0	✓
EMA Western Access Southbound	65	64	-1	-1%	0.1	✓	299	299	0	0%	0.0	✓
EMA Central Access Southbound	189	191	2	1%	0.2	✓	356	369	13	4%	0.7	✓
Hunter Road (Pegasus Park) Southbound	161	142	-19	-12%	1.5	✓	496	421	-74	-15%	3.5	✓

Figure 3.6: Observed Count Locations – A453 and East Midlands Airport

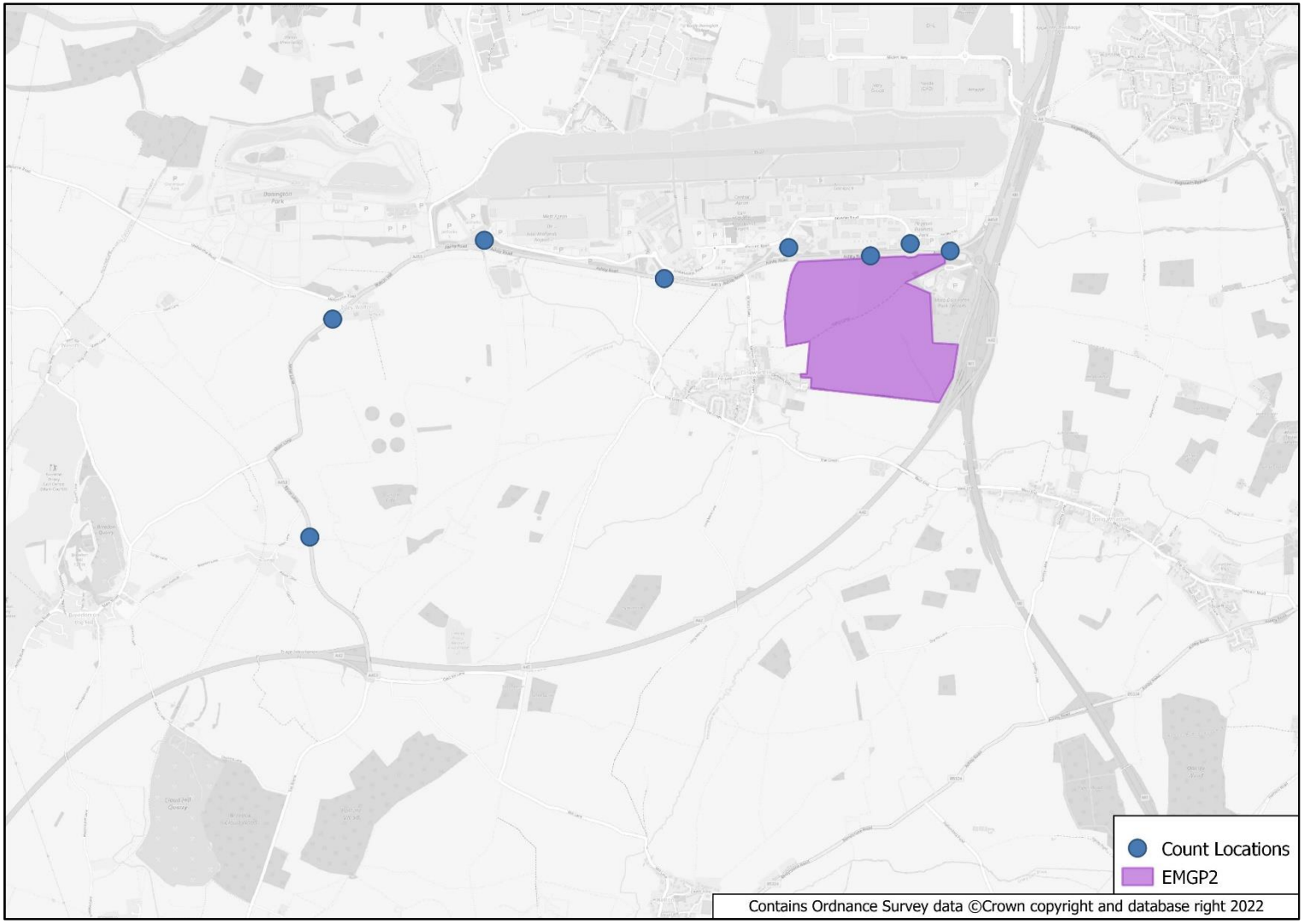
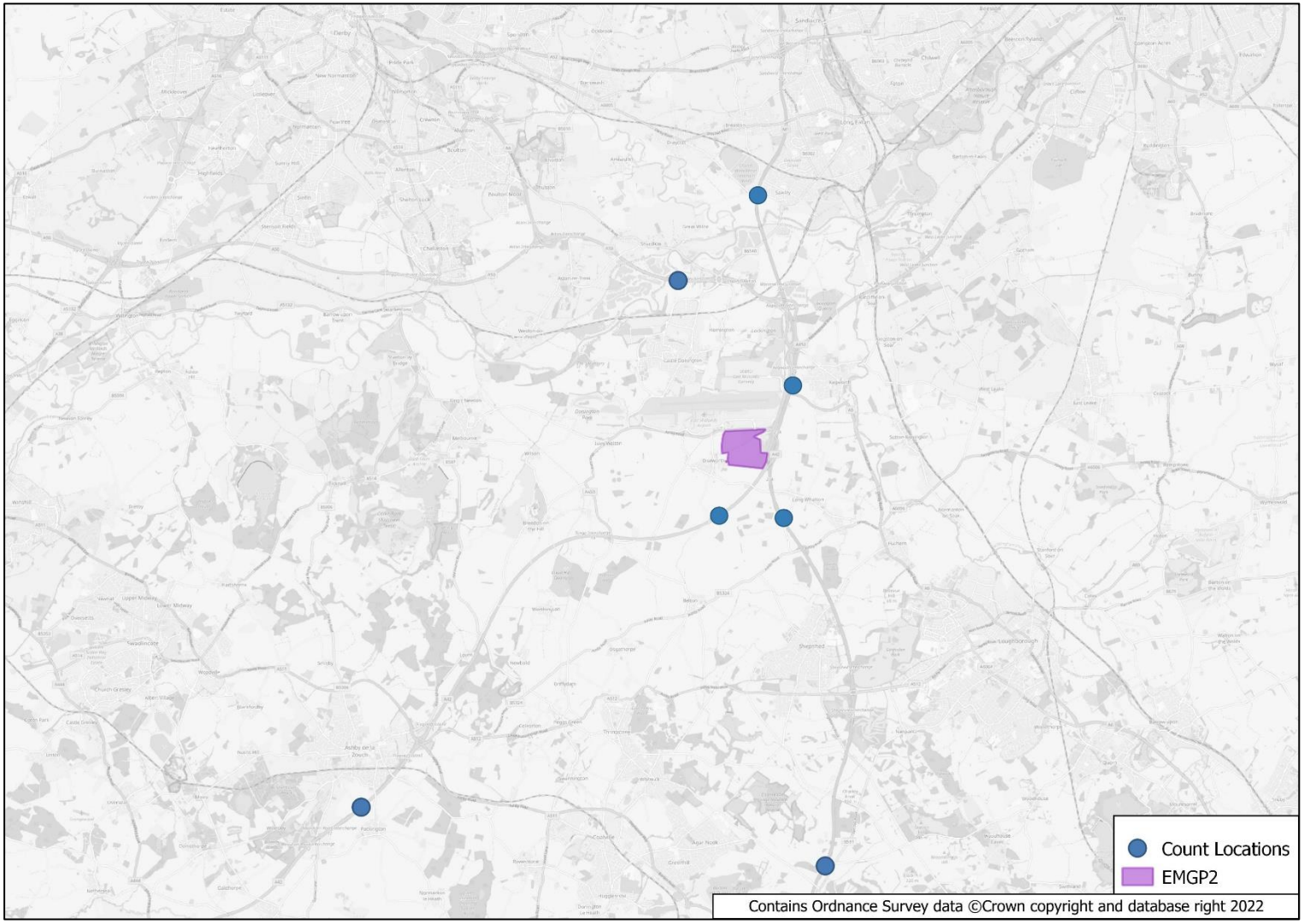


Table 3.6: Link Flow Performance – Strategic Road Network

Location	AM Peak						PM Peak					
	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	GEH	Pass?	Observed (veh)	Modelled (veh)	Observed (veh)	% Diff	GEH	Pass?
A50 between Junction 1 and Junction 2 Eastbound	3,018	2,994	-24	-1%	0.4	✓	3,173	3,146	-27	-1%	0.5	✓
A50 between Junction 1 and Junction 2 Westbound	3,039	3,036	-3	0%	0.1	✓	3,590	3,566	-23	-1%	0.4	✓
A42 between Junction 12 and Junction 13 Northbound	2,700	2,698	-3	0%	0.0	✓	2,542	2,542	1	0%	0.0	✓
A42 between Junction 12 and Junction 13 Southbound	2,395	2,401	6	0%	0.1	✓	2,466	2,466	0	0%	0.0	✓
A42 between Junction 14 and M1 Northbound	2,175	2,064	-111	-5%	2.4	✓	2,027	2,027	0	0%	0.0	✓
A42 between Junction 14 and M1 Southbound	2,019	1,996	-22	-1%	0.5	✓	1,976	1,882	-95	-5%	2.2	✓
M1 between Junction 22 and Junction 23 Northbound	3,983	3,996	13	0%	0.2	✓	4,282	4,314	32	1%	0.5	✓
M1 between Junction 22 and Junction 23 Southbound	3,731	3,727	-4	0%	0.1	✓	4,104	4,110	6	0%	0.1	✓
M1 between Junction 23 and 23a Northbound	3,974	3,974	0	0%	0.0	✓	4,521	4,494	-27	-1%	0.4	✓
M1 between Junction 23 and 23a Southbound	4,002	3,997	-4	0%	0.1	✓	4,214	4,221	7	0%	0.1	✓
M1 between Junction 23a and 24 Northbound	3,658	3,950	292	8%	4.7	✓	4,301	4,762	460	11%	6.8	×
M1 between Junction 23a and 24 Southbound	5,153	5,313	161	3%	2.2	✓	5,255	5,253	-2	0%	0.0	✓
M1 between Junction 24 and Junction 25 Northbound	3,461	3,446	-15	0%	0.3	✓	5,119	5,072	-47	-1%	0.7	✓
M1 between Junction 24 and Junction 25 Southbound	4,501	4,525	23	1%	0.3	✓	3,887	3,815	-72	-2%	1.2	✓

Figure 3.7: Observed Count Locations – Strategic Road Network



3.4 EMFM Highway Base Year Model Journey Time Performance

3.4.1 In terms of journey time routes, there are 32 routes (64 by direction) in the EMFM, as shown in Figure 3.8. The TAG criteria for journey time routes are for the modelled journey time to be within ±15% (or ±1 minute) of the observed journey time. Table 3.7 provides a summary of the journey time performance by area. Overall, the EMFM base year model performs well and is above the 85% threshold of the routes required to pass against TAG.

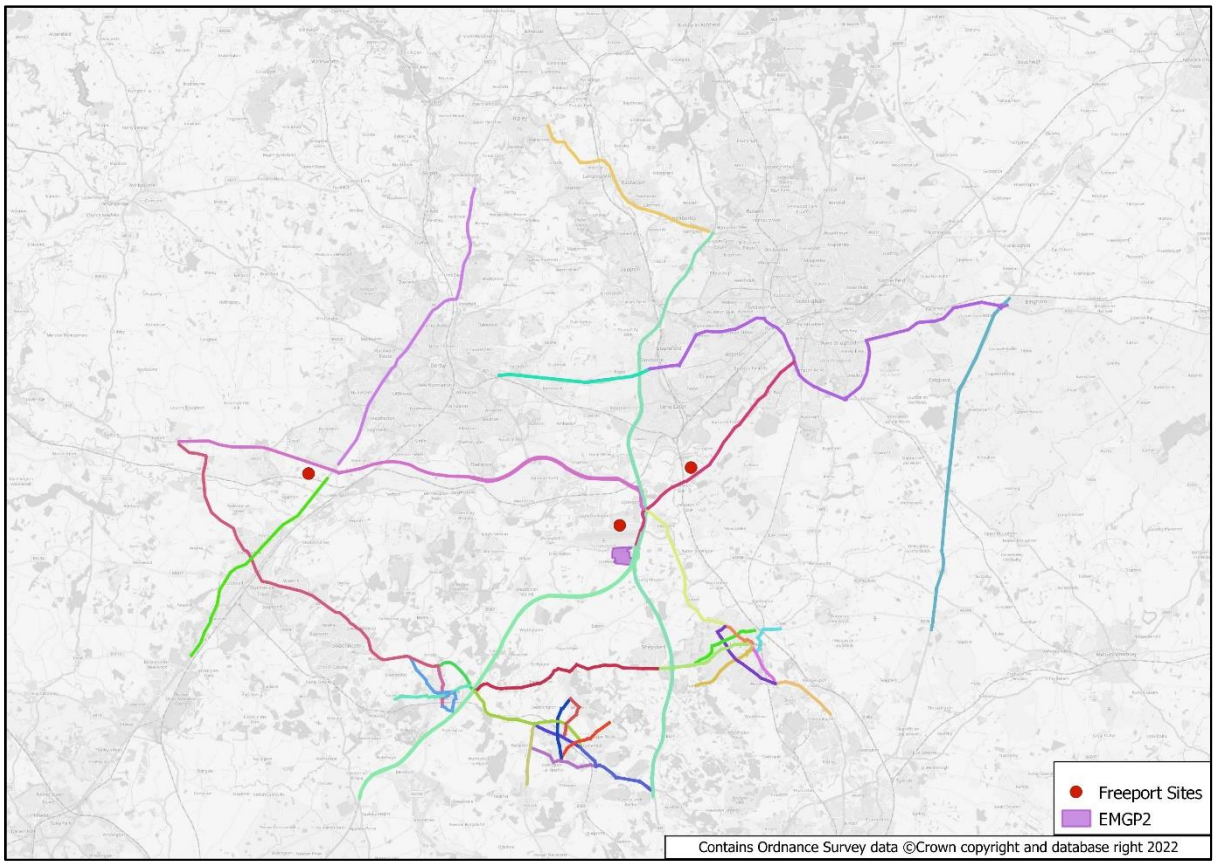
Table 3.7: Journey Time Performance for the EMFM

Area	# Routes	All Vehicles	
		AM	PM
Strategic (cross-county)	8	100.0%	100.0%
North-West Leicestershire	24	83.3%	87.5%
North Leicestershire	18	94.4%	94.4%
Nottinghamshire	6	83.3%	83.3%
Derbyshire & Staffordshire	8	87.5%	87.5%
Total	**64**	**89.1%**	**90.6%**

3.4.2 For the journey time routes in the vicinity of the proposed East Midlands Gateway Phase 2 development (as shown in Figure 3.9), further details are provided in Table 3.8. Appendix A shows the comparison of modelled and observed journey times for these routes in distance-time graph format.

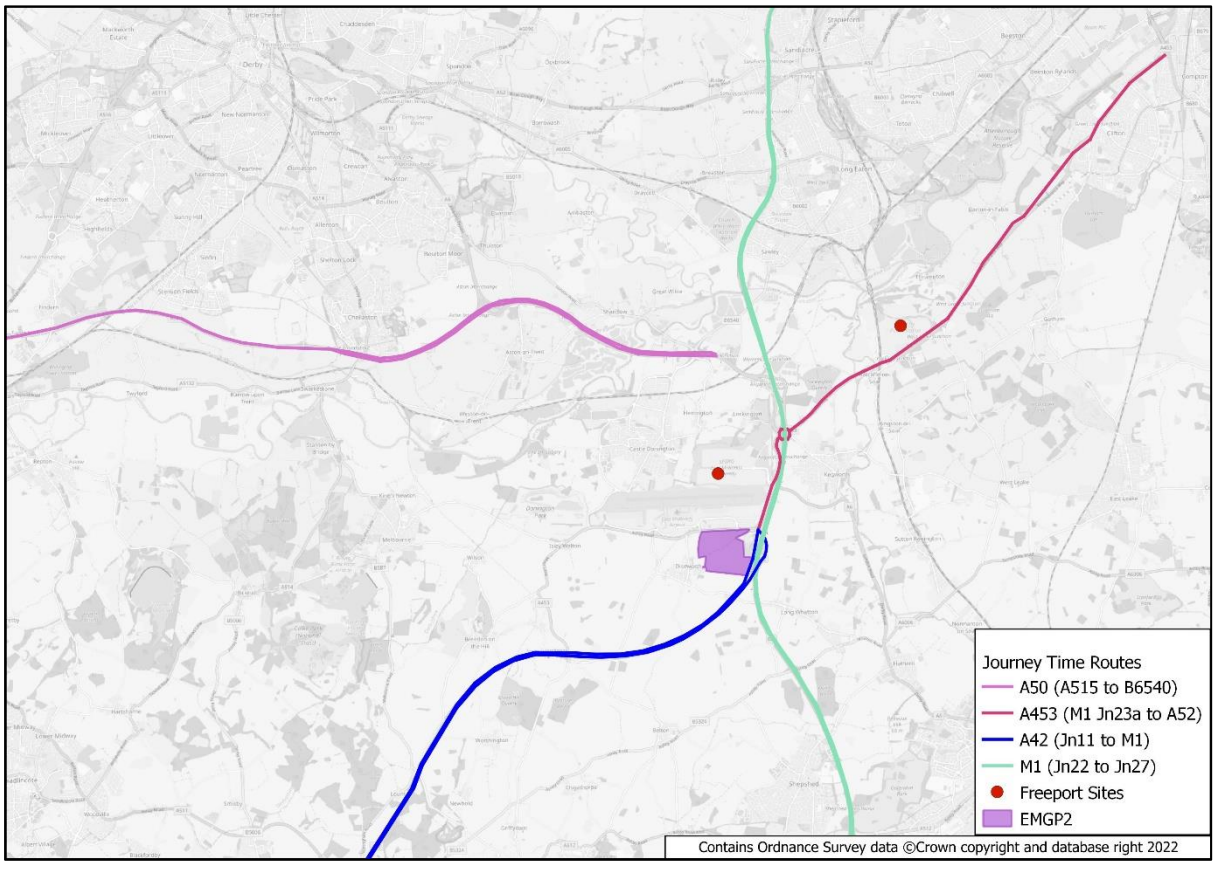
3.4.3 Of the four journey time routes considered, all pass in the AM Peak hour and all but one route (A453 northbound from M1 Junction 23a to A52) pass in the PM Peak hour. Review of the distance-time graph shows that the section of the A453 near the proposed development between M1 Junction 23a and M1 Junction 24 performs well, with the model overestimating journey time on the A453 approach to the A52 in Nottingham.

Figure 3.8: Journey Time Routes used in the EMFM



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Figure 3.9: Journey Time Routes in the Vicinity of the Proposed Development



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Table 3.8: Journey Time Performance in the Vicinity of the Proposed Development

Route	AM Peak					PM Peak				
	Observed	Modelled	Abs Diff	% Diff	Pass	Observed	Modelled	Abs Diff	% Diff	Pass
M1 (Jn22 to 27) Northbound	20:30	22:27	01:56	9%	✓	21:20	23:42	02:22	11%	✓
M1 (Jn22 to 27) Southbound	22:15	23:53	01:37	7%	✓	20:52	22:53	02:00	10%	✓
A42 (Jn11 to M1) Northbound	14:27	15:48	01:21	9%	✓	13:27	15:27	02:00	15%	✓
A42 (Jn11 to M1) Southbound	13:59	15:17	01:19	9%	✓	13:33	15:07	01:34	12%	✓
A50 (A515 to M1) Eastbound	17:55	19:18	01:23	8%	✓	17:03	19:35	02:32	15%	✓
A50 (A515 to M1) Westbound	17:57	19:17	01:19	7%	✓	18:20	19:23	01:03	6%	✓
A453 (M1 Jn23a to A52) Northbound	13:29	14:54	01:24	10%	✓	11:45	14:14	02:30	21%	×
A453 (M1 Jn23a to A52) Southbound	13:08	13:41	00:33	4%	✓	14:24	14:47	00:23	3%	✓

Section 4 – Summary

4.1.1 The EMFM highway model represents an average weekday in April / May / June in 2019 for the AM Peak and PM Peak hours. This review is focused on the suitability of the model for the use in the strategic assessment of the proposed East Midlands Gateway Phase 2 development.

4.1.2 The review of the base year highway model has considered the zone system and network structure in the vicinity of the proposed development, and the network coding along the A453 and for several key junctions in the area. It has also considered the performance of the base year model against the observed counts and journey time data collated as part of the model development.

4.1.3 In terms of the model zone system, the EMFM is considered to contain sufficient detail for a strategic assessment of the proposed development. The proposed development is located within one zone south-west of the Airport. To be able to accurately represent the access points to the network for the proposed development, and to be able to isolate the trips generated by the development within the assignment, it is recommended that one or two development zone(s) be used to represent the proposed development.

4.1.4 A review of the coded highway network near the proposed development has shown the coding of the base year model is satisfactory and is representative of the 2019 road configurations.

4.1.5 A review of the performance of the base year highway model against observed counts and journey time data collated as part of the model development has been undertaken. The EMFM performs well and meets TAG acceptability guidelines in terms of screenline and cordon performance, link flow performance and journey time validation performance.

4.1.6 Near the proposed development, six screenlines and cordons were reviewed in greater detail. Of these six screenlines and cordons, all meet the acceptability criteria in the PM Peak hour and all but one (Leicestershire County Screenline (North)) pass in the AM Peak hour.

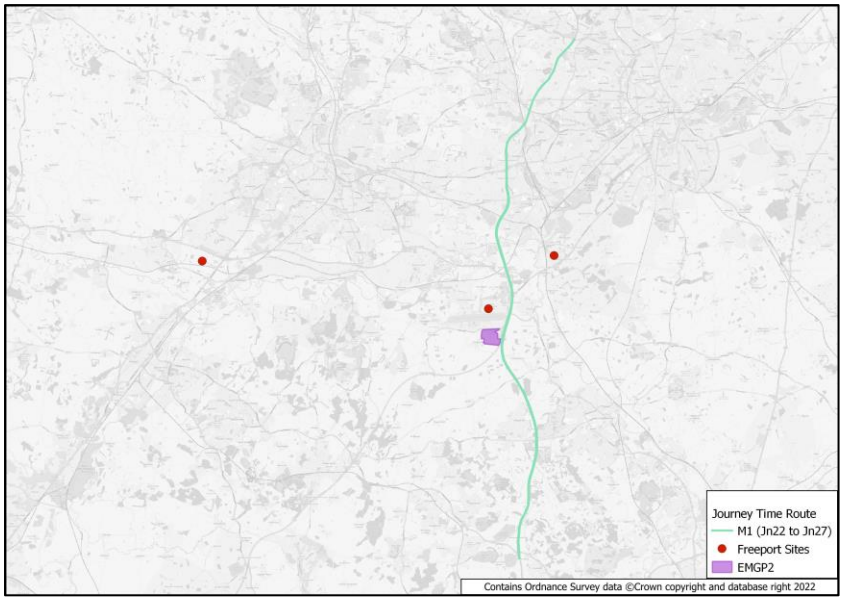
4.1.7 Regarding link flow performance, the EMFM considers 258 observed counts in total, and the pass rates for all vehicles are 94.2% and 92.2% for the AM Peak hour and PM Peak hour respectively, exceeding the 85% TAG criteria guidelines. Near the proposed development, all counts on the A453 and East Midlands Airport links pass the acceptability criteria in both directions for the AM Peak and PM Peak hours. For the 14 counts considered for the SRN, all pass in the AM Peak hour and all but one (M1 northbound between Junction 23a and Junction 24) pass in the PM Peak hour.

4.1.8 In terms of the journey time validation performance, the EMFM considers 64 directional routes in total and the pass rates are 89.1% and 90.6% for the AM Peak hour and PM Peak hour respectively. For the eight directional routes considered in the vicinity of the proposed development which covers the A50, A453, A42 and M1, all pass in the AM Peak hour and all but one (A453 northbound from M1 Junction 23a to A52) pass in the PM Peak hour. Review of the distance-time graph shows that the section of the A453 near the proposed development between M1 Junction 23a and M1 Junction 24 performs well, with the model overestimating journey time on the A453 approach to the A52 in Nottingham.

4.1.9 In summary, based on this base year model review, the EMFM is considered suitable for the strategic assessment of the proposed East Midlands Gateway Phase 2 development.

Appendix A Journey Time Route Performance

Figure A.1: M1 (Junction 22 to Junction 27) Journey Time Validation Graphs



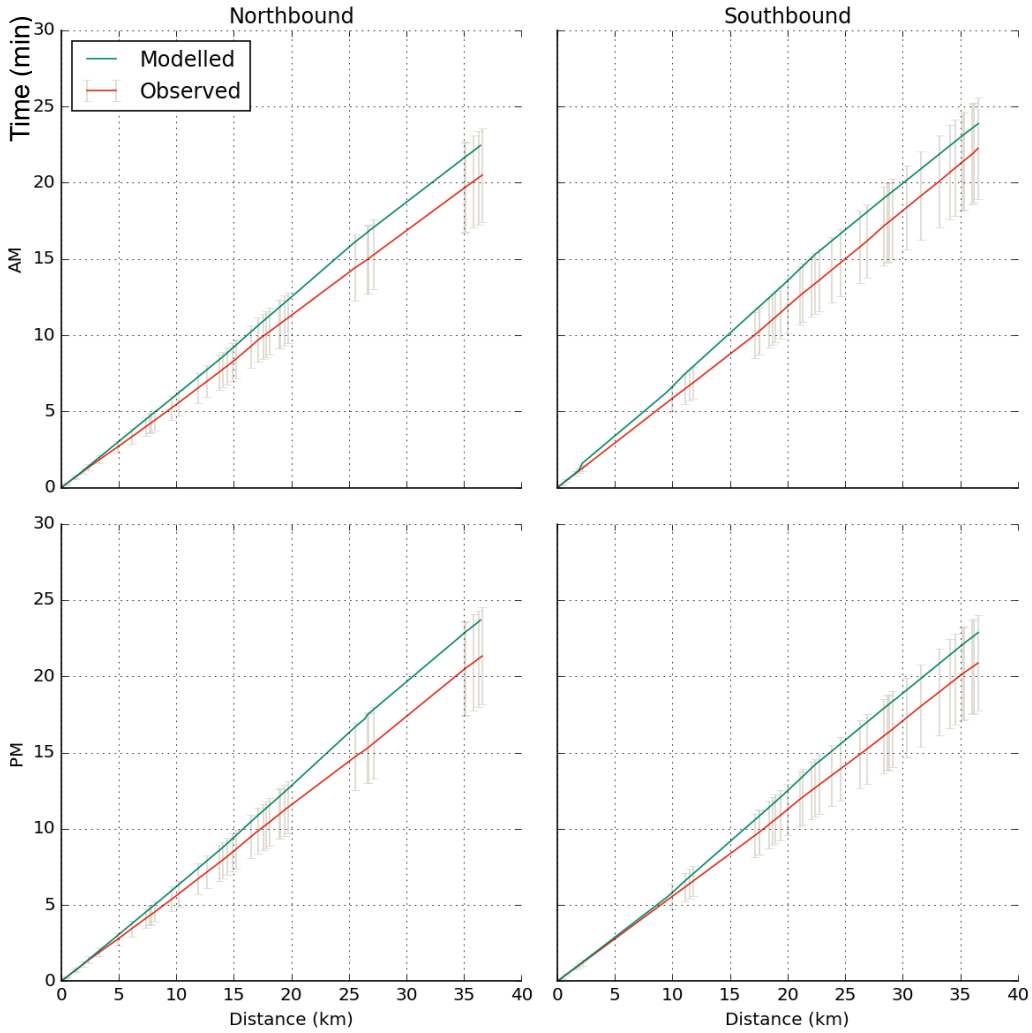
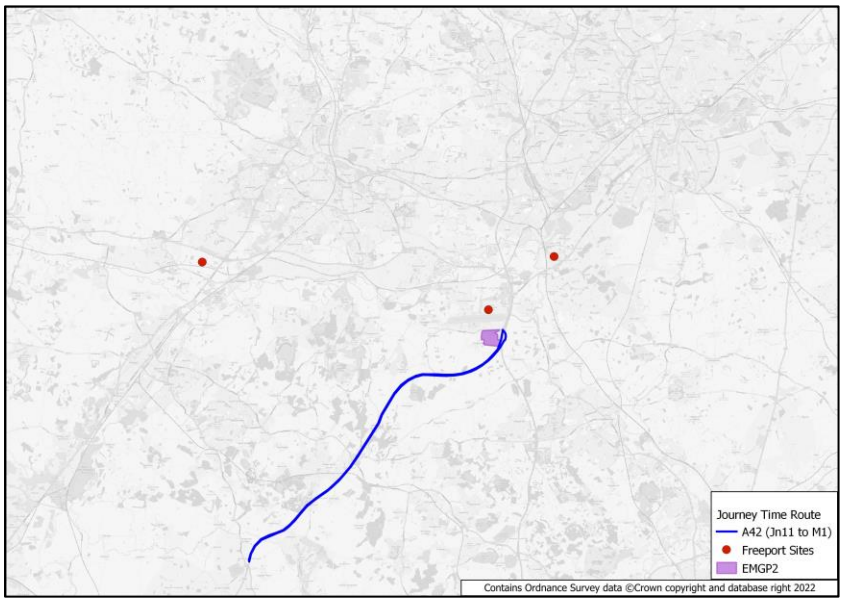


Figure A.2: A42 (Junction 11 to M1) Journey Time Validation Graphs



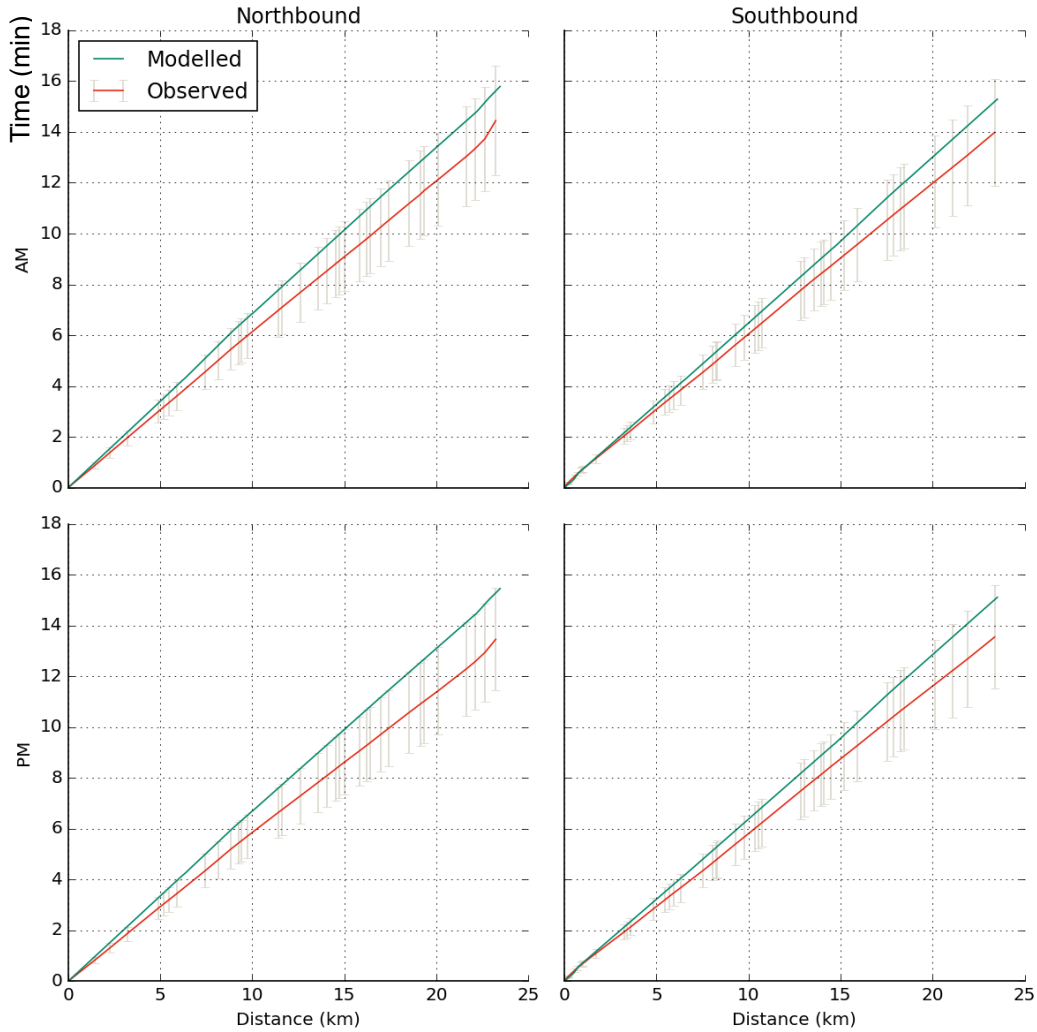
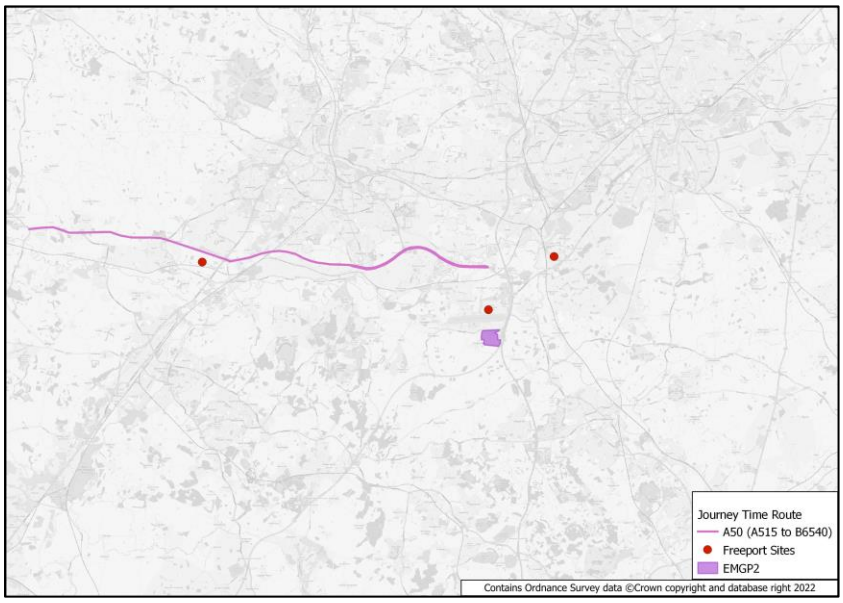


Figure A.3: A50 (A515 to B6540) Journey Time Validation Graphs



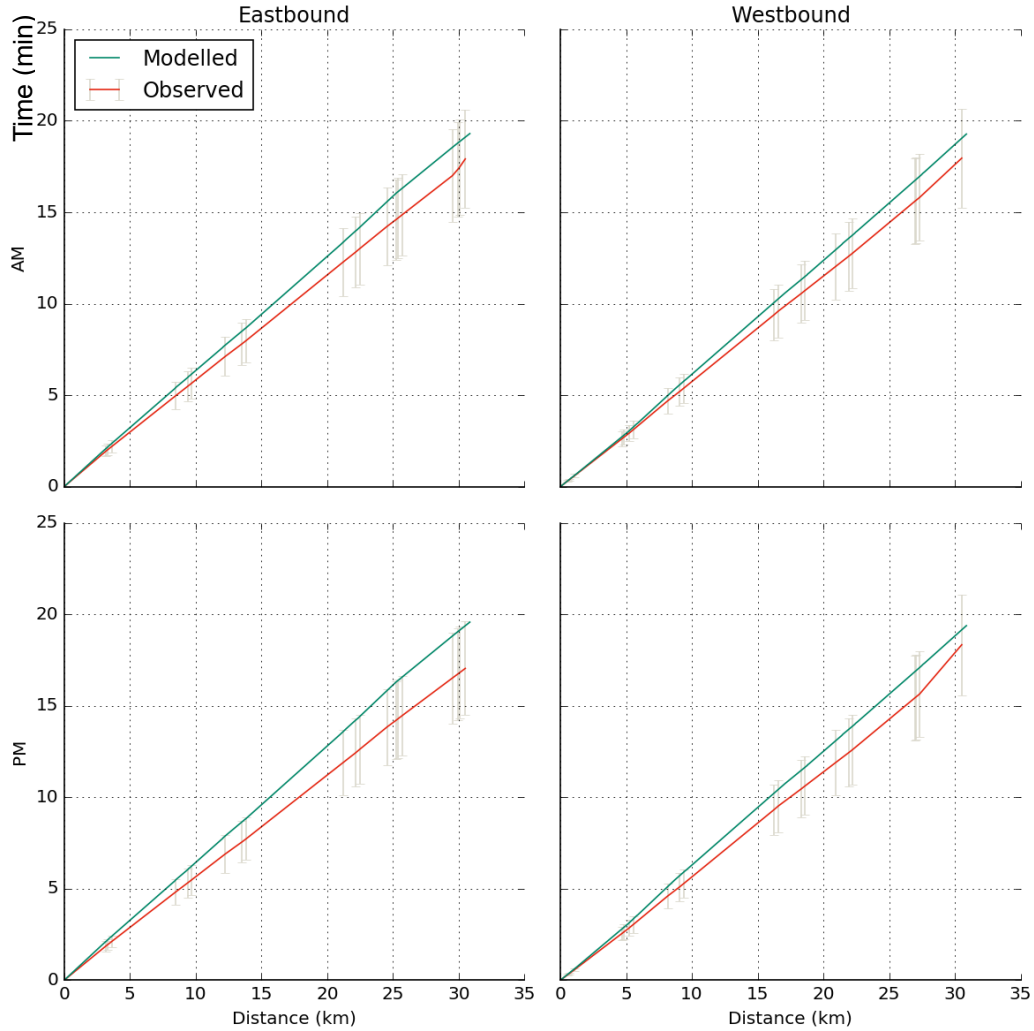
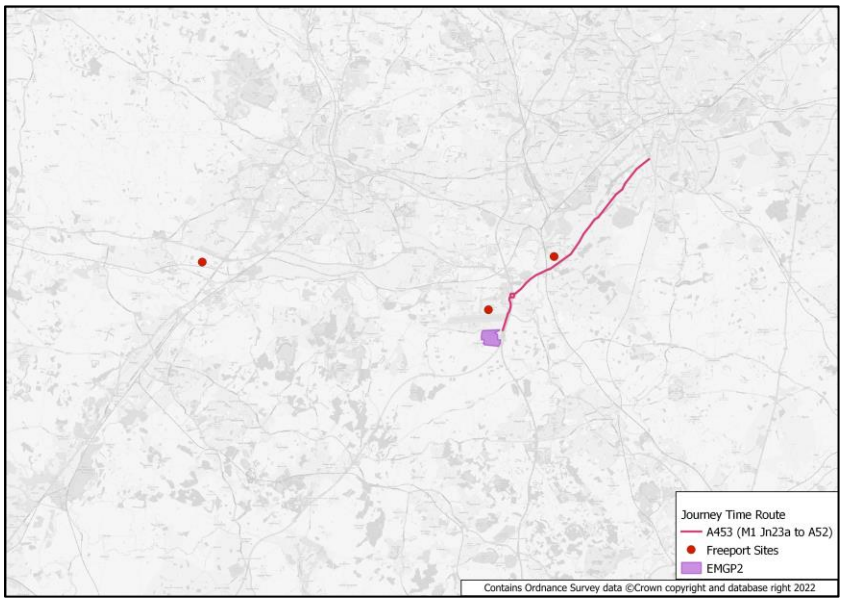
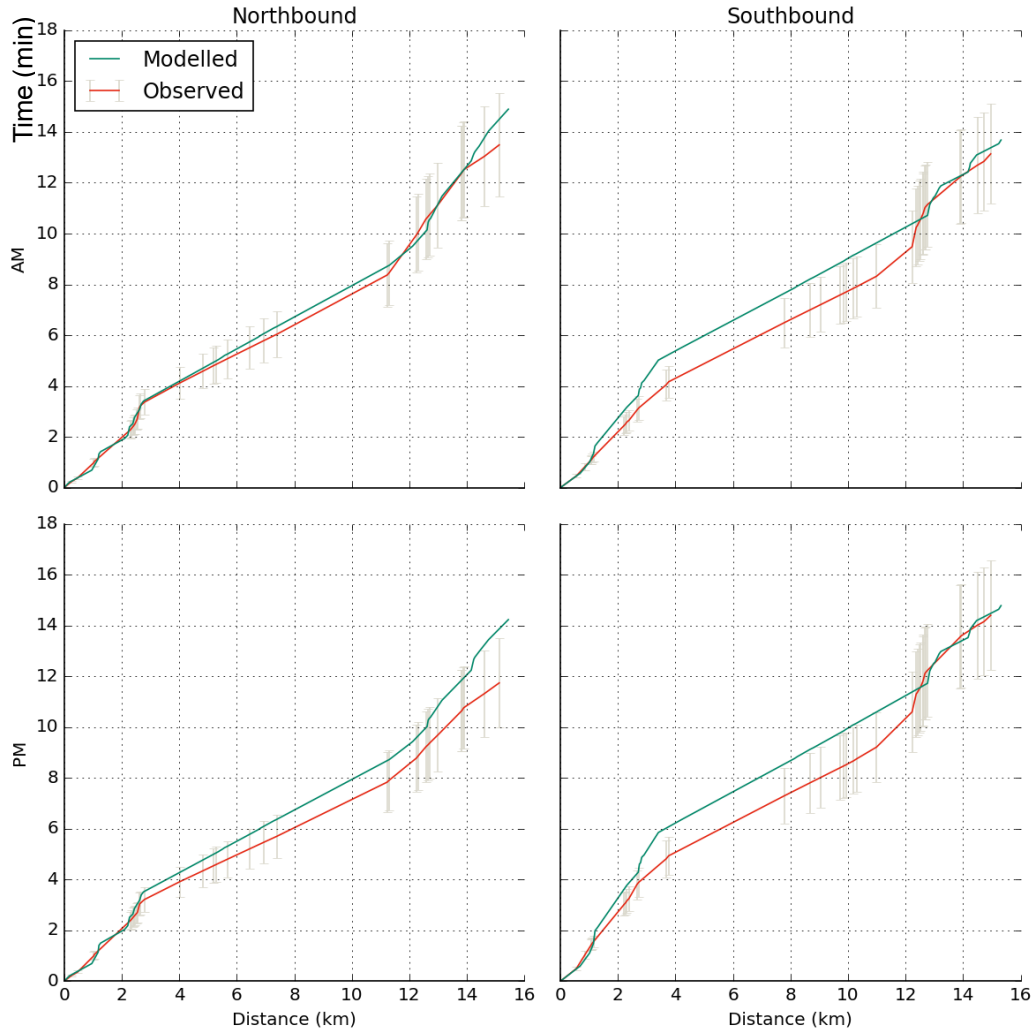


Figure A4: A453 (M1 Junction 23a to A52) Journey Time Validation Graphs





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APPENDIX 7: EMFM Base Year Model Review Addendum (document reference East Midlands Gateway Phase 2: Base Year Model Review Addendum, update to May 2024 TAG data book, v1.0)



EMFM 2019

East Midlands Gateway Phase 2: Base Year Model Review Addendum (update to May 2024 TAG data book)

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
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Table of Contents

Section 1 – Overview 4
1.1 Introduction 4
1.2 Report Structure 5
Section 2 – Modelled Flow Difference 6
2.1 Introduction 6
2.2 2019 Base Year Modelled Flow Difference 6
Section 3 – Base Year Model Performance 8
3.1 Introduction 8
3.2 EMFM Highway Base Year Model Screenline / Cordon Performance 8
3.3 EMFM Highway Base Year Model Link Flow Performance 11
3.4 EMFM Highway Base Year Model Journey Time Performance 16
Section 4 – Summary 20

List of Tables

Table 3.1: Revised Screenline Flow Acceptability Criteria 8
Table 3.2: Screenline and Cordon Performance in the Vicinity of the Proposed Development (May 2024 TAG data book) 10
Table 3.3: Link Flow Performance – A453 and East Midlands Airport (May 2024 TAG data book) 12
Table 3.4: Link Flow Performance – Strategic Road Network (May 2024 TAG data book) 14
Table 3.5: Journey Time Performance in the Vicinity of the Proposed Development (May 2024 TAG data book) 17

List of Figures

Figure 1.1: Location of Proposed Development 4
Figure 2.1: Base Year Modelled Flow Difference – EMFM2019 with May 2024 TAG data book minus EMFM2019 with draft November 2022 TAG data book (AM Peak hour) 6
Figure 2.2: Base Year Modelled Flow Difference – EMFM2019 with May 2024 TAG data book minus EMFM2019 with draft November 2022 TAG data book (PM Peak hour) 7
Figure 3.1: Screenlines and Cordons in the Vicinity of the Proposed Development 9
Figure 3.2: Observed Count Locations – A453 and East Midlands Airport 13
Figure 3.3: Observed Count Locations – Strategic Road Network 15
Figure 3.4: Journey Time Routes in the Vicinity of the Proposed Development 16
Figure 3.5: M1 (Junction 22 to Junction 27) Journey Time Validation Graphs (May 2024 TAG data book) 18
Figure 3.6: A42 (Junction 11 to M1) Journey Time Validation Graphs (May 2024 TAG data book) 18
Figure 3.7: A50 (A515 to B6540) Journey Time Validation Graphs (May 2024 TAG data book) 19
Figure 3.8: A453 (M1 Junction 23a to A52) Journey Time Validation Graphs (May 2024 TAG data book) 19

Section 1 – Overview

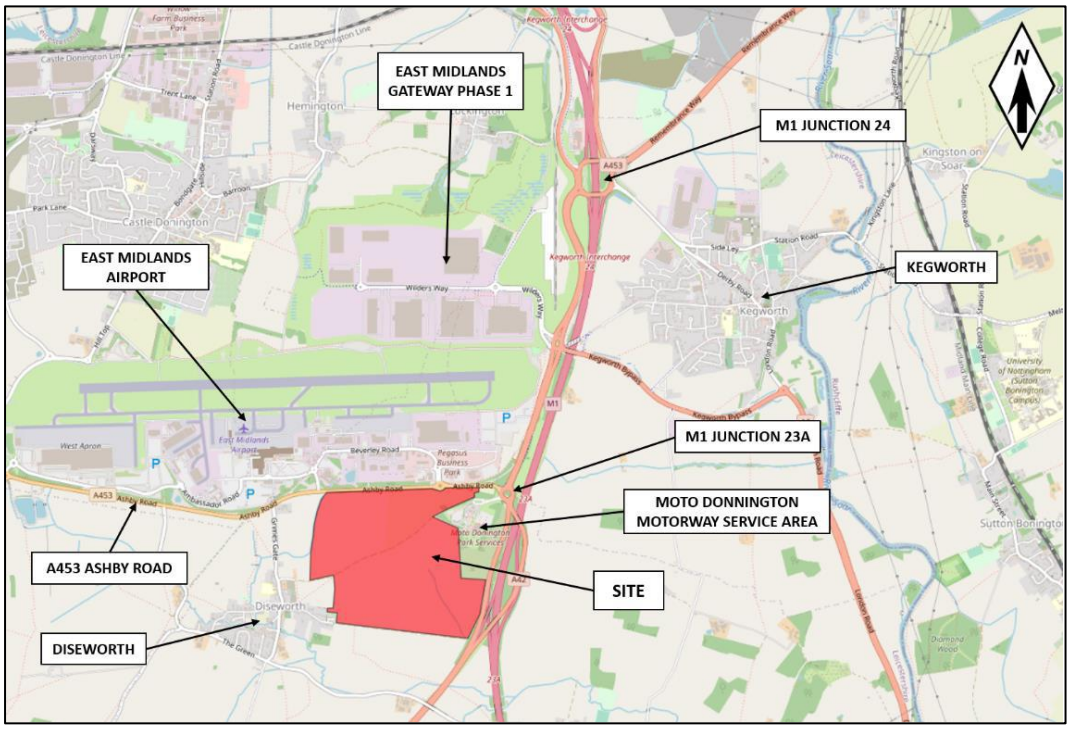
1.1 Introduction

1.1.1 The East Midlands Gateway (EMG) Phase 2 development is a proposed employment development of mixed B2 (general industrial) and B8 (storage or distribution) use, with capacity for 400,000sqm gross floorspace (300,000sqm ground floorspace and 100,000sqm mezzanine floorspace) of industrial use, comprising 340,000sqm B8 and 60,000sqm B2.

1.1.2 The development site is located to the south of East Midlands Airport and west of the A42 in Leicestershire and is expected to build out by 2031.

1.1.3 Figure 1.1 shows an indication of the location of the proposed development, denoted by the area shaded in red. The proposed development has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. The M1 Junction 23a lies to the east of the site with the Moto Donington Motorway Service Area (MSA) directly abutting to the north-east.

Figure 1.1: Location of Proposed Development[1]



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1.1.4 AECOM has been commissioned to undertake strategic modelling to assess the potential traffic impacts of the proposed development using the East Midlands Freeport Model (EMFM).

1.1.5 The base year of the EMFM is 2019, and it is a highway assignment model (for the AM Peak and PM Peak hours), with its demand derived from the more extensive Pan-Regional Transport Model (PRTM 2019), though the EMFM has greater network and zonal density in the vicinity of the Freeport sites.

1.1.6 A base year model review for the $EMFM_{2019}$ was undertaken in 2022 / 2023 for this application. However, this previous version of the $EMFM_{2019}$ used the draft November 2022 TAG data book.

1.1.7 It is proposed that the $EMFM_{2019}$ is updated to use the latest May 2024 TAG data book for this application. The impact on the 2019 base year modelled flows due to the update of the TAG data book version is expected to be small (i.e. within ±25 PCUs) and is not expected to materially affect the

[1] Indicative site boundary from 19232_F0037[M]_Illustrative Masterplan.pdf, provided by BWB (23/05/2024)

overall base year model performance results. As such, a full update of the base year model review is not considered necessary.

1.1.8 This addendum provides modelled flow difference plots between the 2019 base year model with the draft November 2022 TAG data book and May 2024 TAG data book to demonstrate that for most links, the modelled flow differences are small, and the screenline, link flow and journey time performance in the vicinity of the proposed EMG Phase 2 development is not materially affected. This addendum should be read alongside the East Midlands Gateway Phase 2 Base Year Model Review Report[2], which also provides the zone and network review for the $EMFM_{2019}$.

1.2 Report Structure

1.2.1 Following this overview, this report contains the following sections:

- Section 2 provides the modelled flow difference plots between the 2019 base year model with the draft November 2022 TAG data book and May 2024 TAG data book;
- Section 3 summarises the base year model performance in the vicinity of the proposed development for the updated base year model (with May 2024 TAG data book); and
- Section 4 provides a summary.

[2] EMFM2019 – East Midlands Gateway Phase 2: Base Year Model Review v1.1 (dated 2022-11-11)

Section 2 – Modelled Flow Difference

2.1 Introduction

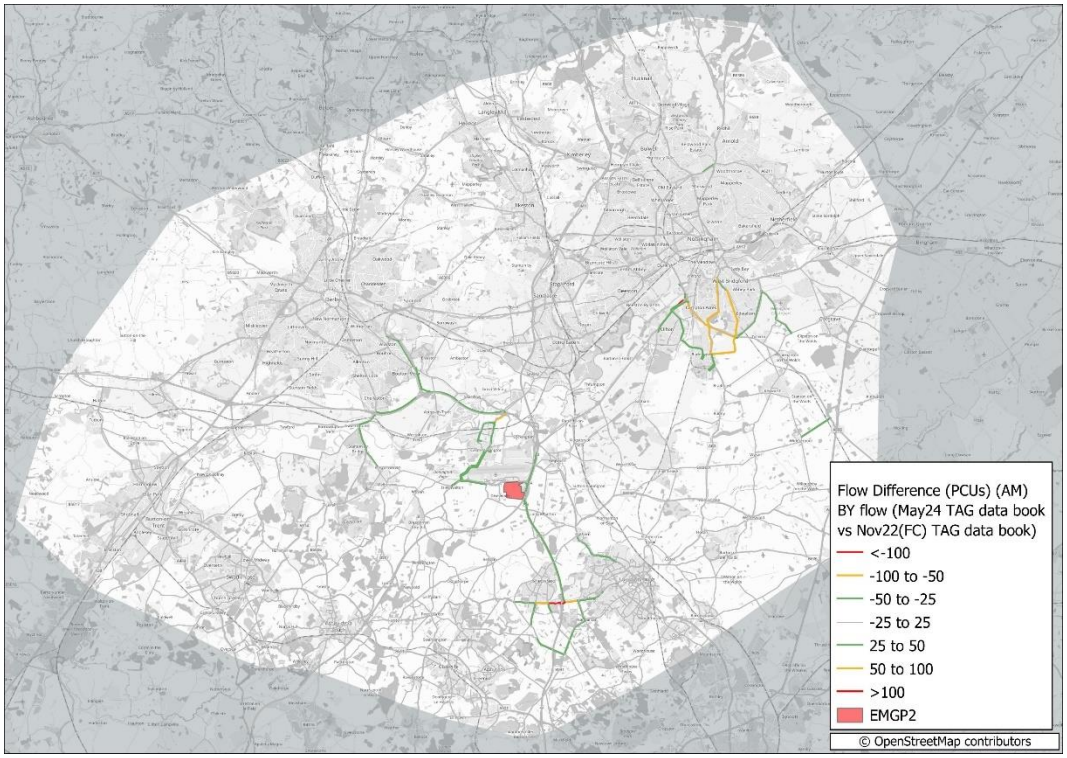
2.1.1 This section presents the 2019 base year modelled flow difference plots between the EMFM$_{2019}$ with the draft November 2022 TAG data book and the latest May 2024 TAG data book for the AM Peak and PM Peak hours.

2.2 2019 Base Year Modelled Flow Difference

2.2.1 Figure 2.1 and Figure 2.2 show the 2019 base year modelled flow differences due to the update of the TAG data book version.

2.2.2 As shown in Figure 2.1 and Figure 2.2, most links show an absolute modelled flow difference of fewer than 25 PCUs[3], and as such do not materially affect the overall base year model performance results. Section 3 provides additional checks on the screenline, link flow and journey time performance in the vicinity of the proposed development for the EMFM$_{2019}$ with May 2024 TAG data book.

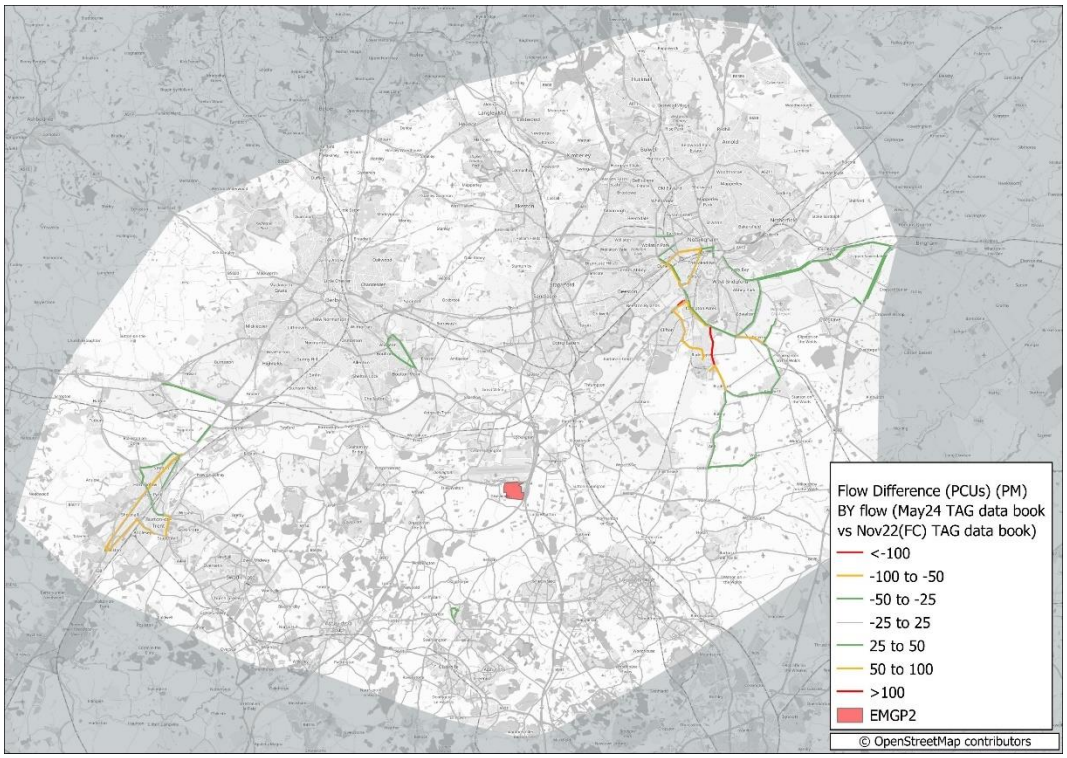
Figure 2.1: Base Year Modelled Flow Difference – EMFM2019 with May 2024 TAG data book minus EMFM2019 with draft November 2022 TAG data book (AM Peak hour)



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[3] Passenger Car Units (for the EMFM$_{2019}$, one car / LGV is equivalent to one PCU, and one HGV is equivalent to two PCUs)

Figure 2.2: Base Year Modelled Flow Difference – EMFM2019 with May 2024 TAG data book minus EMFM2019 with draft November 2022 TAG data book (PM Peak hour)



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Section 3 – Base Year Model Performance

3.1 Introduction

3.1.1 This section presents the base year model performance results for the screenlines / cordons, link flows and journey time routes in the vicinity of the proposed EMG Phase 2 development for the $EMFM_{2019}$ with the latest May 2024 TAG data book.

3.2 EMFM Highway Base Year Model Screenline / Cordon Performance

3.2.1 Guidelines set out in Table 1 of TAG Unit M3.1 on highway assignment modelling state that a modelled screenline meets TAG criteria if the differences between modelled flows and observed counts are less than 5% of the counts and that this should be true for 'all or nearly all screenlines'.

3.2.2 Screenlines are normally made up of 5 links or more. Within the EMFM, there are several screenlines / cordons with fewer than five count locations and / or with a relatively low observed flow for the screenline. It has been noted that such screenline / cordons tend to fail the 5% TAG criterion for screenline / cordon flows even when all individual links are within the TAG criteria. For this reason, the flow criterion has been adjusted for screenlines / cordons with fewer than five counts and / or low observed flows.

3.2.3 This revised criterion has been based on the individual link flow acceptability criteria and is given in Table 3.1. This uses the individual link flow TAG criteria for screenlines with one count, and the standard screenline criterion for screenlines with five or more counts, and interpolates between these two points for screenlines with between two and four counts. These revised criteria have been used in the assessment of the modelled screenline flows against observed data.

Table 3.1: Revised Screenline Flow Acceptability Criteria

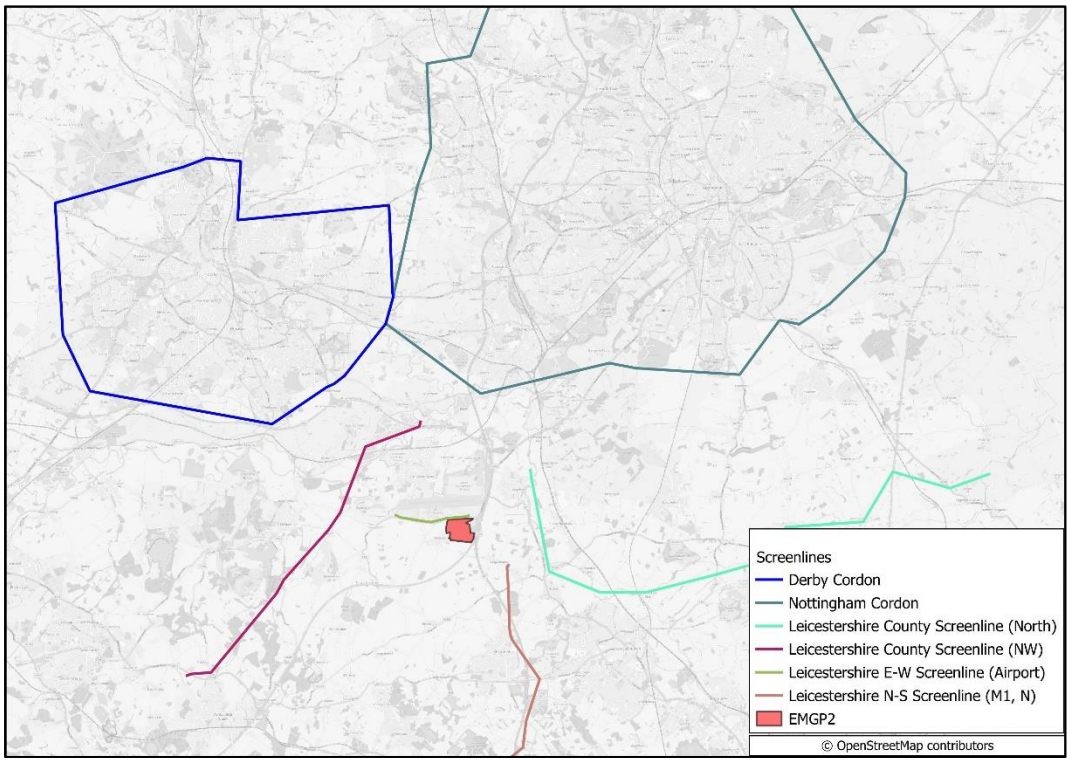
Number of Counts on Screenline	Acceptability Guidelines
5 of more counts	Within ±5% or ±100 vehicles of observed count
4 counts	Within ±7.5% or ±100 vehicles of observed count
3 counts	Within ±10% or ±100 vehicles of observed count
2 counts	Within ±12.5% or ±100 vehicles of observed count
1 count	Within ±15% or ±100 vehicles of observed count

3.2.4 Figure 3.1 shows the screenlines and cordons in the vicinity of the proposed development and Table 3.2 provides a summary of the base year model performance. For the AM Peak hour, all screenlines and cordons considered meet the acceptability criteria in both directions except the Leicestershire County Screenline (North) which marginally fails for southbound (i.e. inbound to Leicestershire). For the PM Peak hour, all screenlines and cordons considered meet the acceptability criteria in both directions except the Nottingham Cordon which marginally fails for the outbound direction.

3.2.5 The reader may note that the Nottingham Cordon (outbound) marginally passes for the model with the draft November 2022 TAG data book (i.e. difference of -4.9%) but marginally fails for the model with the latest May 2024 TAG data book (i.e. difference of -5.1%).

3.2.6 Overall, the screenline and cordon performance for the EMFM base year model (with May 2024 TAG data book) is good and meets the TAG threshold that 'all or nearly all screenlines' pass the acceptability criteria.

Figure 3.1: Screenlines and Cordons in the Vicinity of the Proposed Development



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Table 3.2: Screenline and Cordon Performance in the Vicinity of the Proposed Development (May 2024 TAG data book)

Screenline / Cordon	# Counts	AM Peak					PM Peak				
		Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	Pass?	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	Pass?
Leicestershire E-W Screenline (Airport) Northbound	3	1,301	1,291	-10	-0.8%	✓	424	378	-46	-10.9%	✓
Leicestershire E-W Screenline (Airport) Southbound	3	415	397	-17	-4.2%	✓	1,150	1,089	-61	-5.3%	✓
Leicestershire County Screenline (North-West) Inbound	7	4,279	4,244	-35	-0.8%	✓	5,134	5,020	-114	-2.2%	✓
Leicestershire County Screenline (North-West) Outbound	7	4,843	4,648	-194	-4.0%	✓	4,946	4,926	-19	-0.4%	✓
Leicestershire County Screenline (North) Inbound	9	3,788	4,010	222	5.9%	×	3,988	3,990	2	0.0%	✓
Leicestershire County Screenline (North) Outbound	9	3,821	3,808	-13	-0.3%	✓	4,095	4,174	79	1.9%	✓
Leicestershire N-S Screenline (M1, North) Eastbound	9	5,604	5,631	27	0.5%	✓	4,721	4,665	-56	-1.2%	✓
Leicestershire N-S Screenline (M1, North) Westbound	9	3,945	4,000	55	1.4%	✓	5,275	5,372	96	1.8%	✓
Nottingham Cordon Inbound	25	23,816	23,104	-712	-3.0%	✓	24,787	24,153	-633	-2.6%	✓
Nottingham Cordon Outbound	25	22,567	21,737	-830	-3.7%	✓	24,524	23,279	-1,245	-5.1%	×
Derby Cordon Inbound	13	12,975	12,440	-534	-4.1%	✓	12,760	12,637	-122	-1.0%	✓
Derby Cordon Outbound	13	11,285	11,258	-27	-0.2%	✓	13,448	13,067	-382	-2.8%	✓

3.3 EMFM Highway Base Year Model Link Flow Performance

3.3.1 Guidelines set out in Table 2 of TAG Unit 3.1 on highway assignment modelling state that a modelled link flow meets TAG criteria if at least one of the two following conditions is met:

- Flow criteria:
  - modelled flow is within 100 vehicles for counts with an observed flow of less than 700 vehicles;
  - modelled flow is within 15% for counts with an observed flow between 700 and 2,700 vehicles; or
  - modelled flow is within 400 vehicles for counts with an observed flow greater than 2,700 vehicles.
- GEH criteria:
  - a GEH[4] value of less than 5.

3.3.2 The link flow performance for the A453, East Midlands Airport links and the Strategic Road Network (SRN) in the vicinity of the proposed development has been checked. Table 3.3 shows that all counts on the A453 and East Midlands Airport links pass the acceptability criteria in both directions for the AM Peak and PM Peak hours. For the 14 counts considered for the SRN, Table 3.4 shows that all pass in the AM Peak hour, and all but one (M1 northbound between Junction 23a and Junction 24) pass in the PM Peak hour. Figure 3.2 and Figure 3.3 show the observed count locations.

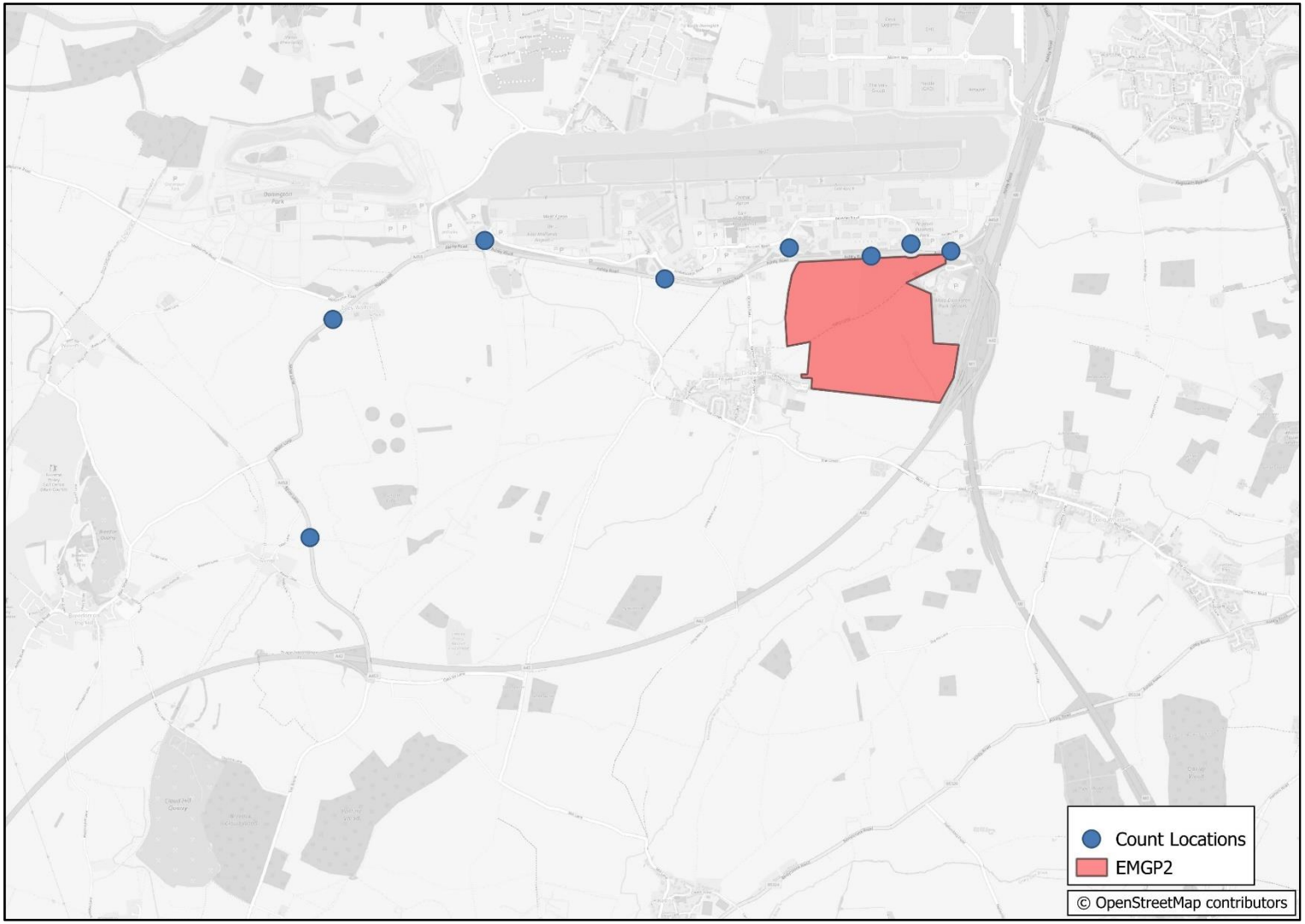
3.3.3 The pass rates for the link flow performance for both AM Peak and PM Peak hours have not changed following the update of the TAG data book from draft November 2022 version to May 2024 version.

[4] $GEH = \sqrt{\frac{(M-O)^2}{(M+O)/2}}$, where M is the modelled flow and O is the observed flow

Table 3.3: Link Flow Performance – A453 and East Midlands Airport (May 2024 TAG data book)

Location	AM Peak						PM Peak					
	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	GEH	Pass?	Observed (veh)	Modelled (veh)	Observed (veh)	% Diff	GEH	Pass?
Ashby Road E of EMA Eastbound	567	532	-36	-6.3%	1.5	✓	649	587	-61	-9.5%	2.5	✓
Ashby Road E of EMA Westbound	619	528	-91	-14.7%	3.8	✓	520	486	-34	-6.6%	1.5	✓
Ashby Road West of A453 Junction Eastbound	582	671	89	15.3%	3.6	✓	1,024	1,008	-16	-1.6%	0.5	✓
Ashby Road West of A453 Junction Westbound	1,084	1,102	18	1.7%	0.5	✓	589	606	17	2.9%	0.7	✓
Moor Lane Northbound	293	295	2	0.6%	0.1	✓	240	240	0	0.1%	0.0	✓
Moor Lane Southbound	224	220	-4	-1.7%	0.3	✓	289	289	-1	-0.2%	0.0	✓
A453 Walton Hill Eastbound	440	442	1	0.3%	0.1	✓	324	322	-1	-0.4%	0.1	✓
A453 Walton Hill Westbound	307	314	7	2.1%	0.4	✓	451	439	-12	-2.7%	0.6	✓
Ashby Road West of Grimes Gate Northbound	641	606	-34	-5.4%	1.4	✓	321	319	-2	-0.5%	0.1	✓
Ashby Road West of Grimes Gate Southbound	331	355	24	7.3%	1.3	✓	444	402	-42	-9.4%	2.0	✓
EMA Western Access Northbound	300	301	1	0.2%	0.0	✓	78	78	-0	-0.6%	0.1	✓
EMA Central Access Northbound	389	416	27	7.0%	1.3	✓	177	180	3	1.6%	0.2	✓
Hunter Road (Pegasus Park) Northbound	612	574	-38	-6.2%	1.6	✓	169	120	-49	-28.8%	4.0	✓
EMA Western Access Southbound	65	71	6	9.0%	0.7	✓	299	310	11	3.7%	0.6	✓
EMA Central Access Southbound	189	186	-2	-1.2%	0.2	✓	356	359	3	0.9%	0.2	✓
Hunter Road (Pegasus Park) Southbound	161	140	-21	-13.1%	1.7	✓	496	421	-75	-15.2%	3.5	✓

Figure 3.2: Observed Count Locations – A453 and East Midlands Airport

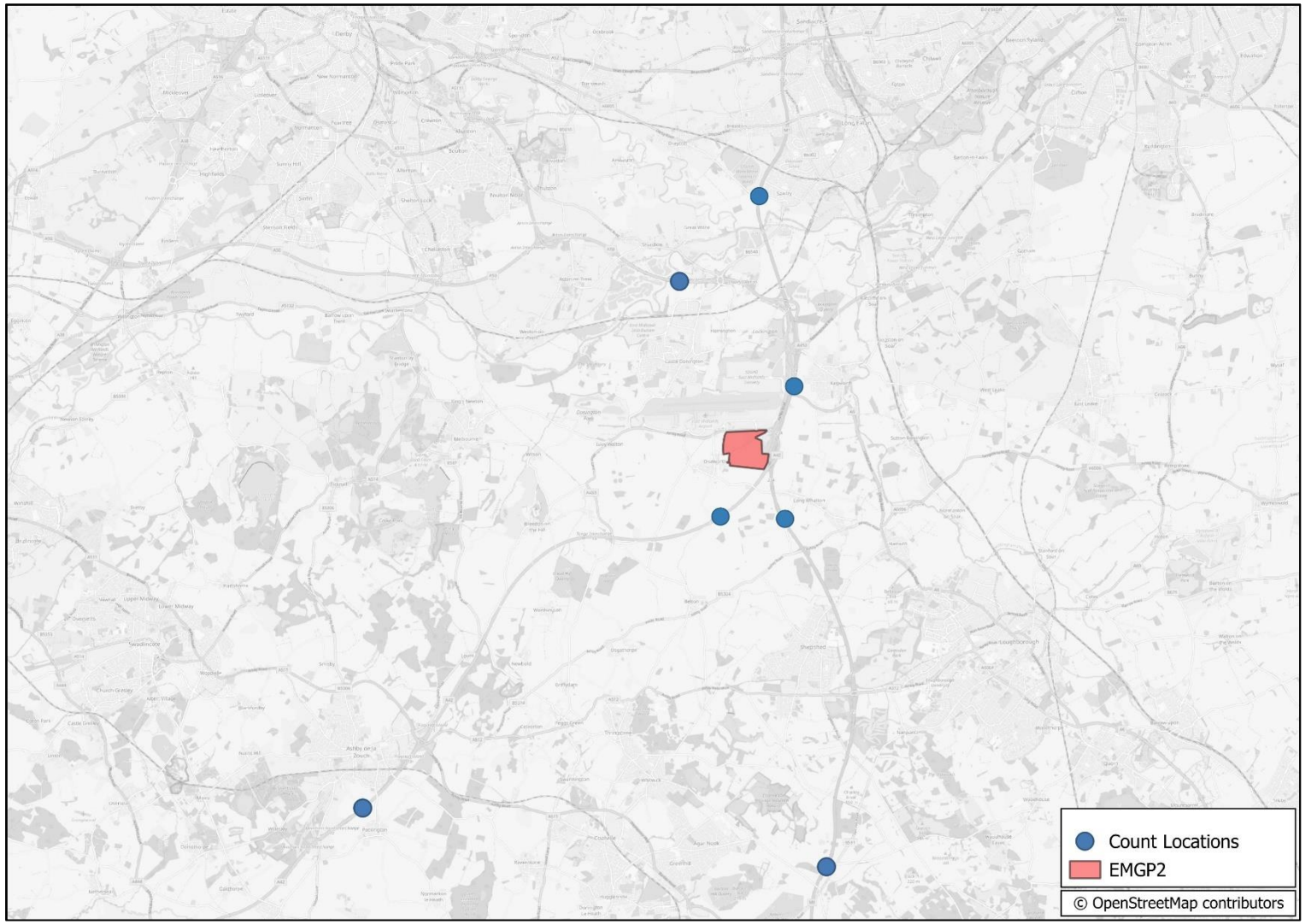


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Table 3.4: Link Flow Performance – Strategic Road Network (May 2024 TAG data book)

Location	AM Peak						PM Peak					
	Observed (veh)	Modelled (veh)	Abs Diff (veh)	% Diff	GEH	Pass?	Observed (veh)	Modelled (veh)	Observed (veh)	% Diff	GEH	Pass?
A50 between Junction 1 and Junction 2 Eastbound	3,018	2,946	-72	-2.4%	1.3	✓	3,173	3,131	-42	-1.3%	0.8	✓
A50 between Junction 1 and Junction 2 Westbound	3,039	3,033	-5	-0.2%	0.1	✓	3,590	3,561	-29	-0.8%	0.5	✓
A42 between Junction 12 and Junction 13 Northbound	2,700	2,697	-3	-0.1%	0.1	✓	2,542	2,541	-1	-0.0%	0.0	✓
A42 between Junction 12 and Junction 13 Southbound	2,395	2,401	6	0.2%	0.1	✓	2,466	2,465	-1	-0.0%	0.0	✓
A42 between Junction 14 and M1 Northbound	2,175	2,070	-105	-4.8%	2.3	✓	2,027	2,032	5	0.2%	0.1	✓
A42 between Junction 14 and M1 Southbound	2,019	2,016	-3	-0.1%	0.1	✓	1,976	1,878	-99	-5.0%	2.2	✓
M1 between Junction 22 and Junction 23 Northbound	3,983	3,971	-12	-0.3%	0.2	✓	4,282	4,303	21	0.5%	0.3	✓
M1 between Junction 22 and Junction 23 Southbound	3,731	3,728	-4	-0.1%	0.1	✓	4,104	4,101	-3	-0.1%	0.0	✓
M1 between Junction 23 and 23a Northbound	3,974	3,982	8	0.2%	0.1	✓	4,521	4,501	-19	-0.4%	0.3	✓
M1 between Junction 23 and 23a Southbound	4,002	3,935	-67	-1.7%	1.1	✓	4,214	4,205	-8	-0.2%	0.1	✓
M1 between Junction 23a and 24 Northbound	3,658	3,952	294	8.0%	4.8	✓	4,301	4,833	532	12.4%	7.9	×
M1 between Junction 23a and 24 Southbound	5,153	5,302	150	2.9%	2.1	✓	5,255	5,240	-15	-0.3%	0.2	✓
M1 between Junction 24 and Junction 25 Northbound	3,461	3,442	-19	-0.6%	0.3	✓	5,119	5,072	-47	-0.9%	0.7	✓
M1 between Junction 24 and Junction 25 Southbound	4,501	4,520	19	0.4%	0.3	✓	3,887	3,811	-76	-2.0%	1.2	✓

Figure 3.3: Observed Count Locations – Strategic Road Network



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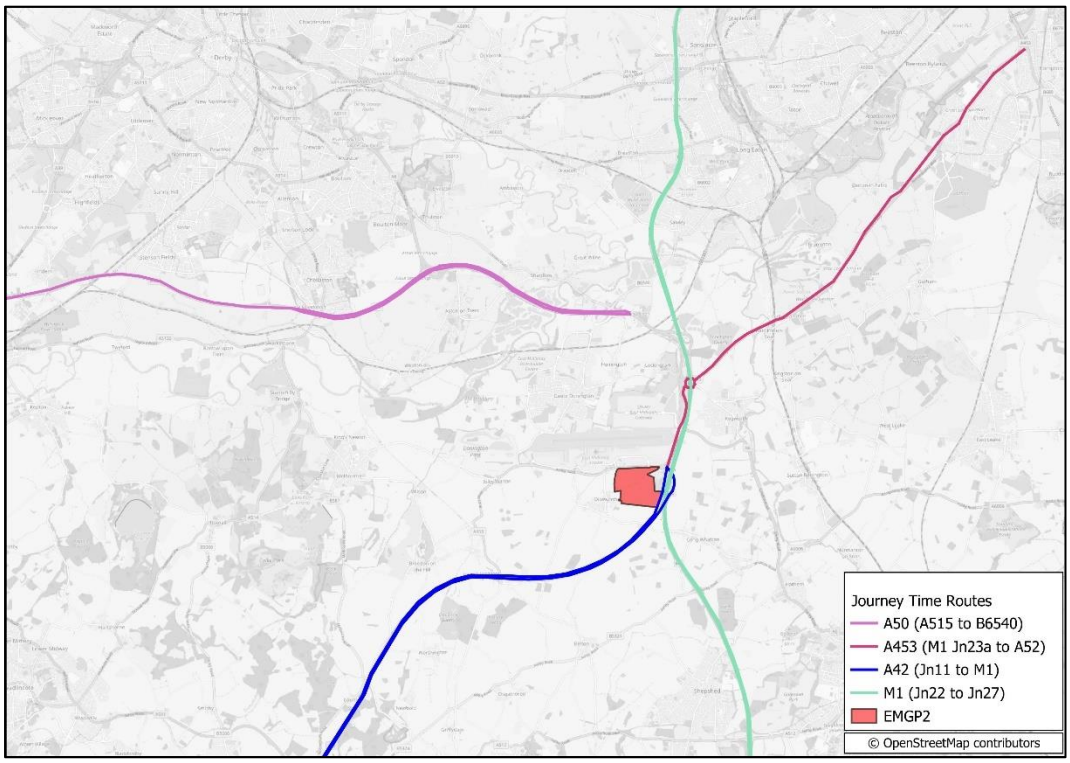
3.4 EMFM Highway Base Year Model Journey Time Performance

3.4.1 Of the four journey time routes in the vicinity of the proposed development as shown in Figure 3.4, Table 3.5 shows that all routes pass in the AM Peak hour and all but one route (A453 northbound from M1 Junction 23a to A52) pass in the PM Peak hour.

3.4.2 Figure 3.5 to Figure 3.8 shows the comparison of modelled and observed journey times in distance-time graph format. Figure 3.8 shows that the section of the A453 near the proposed development between M1 Junction 23a and M1 Junction 24 performs well, with the model overestimating journey time on the A453 approach to the A52 in Nottingham.

3.4.3 The pass rates for the journey time performance for both AM Peak and PM Peak hours have not changed following the update of the TAG data book from draft November 2022 version to May 2024 version.

Figure 3.4: Journey Time Routes in the Vicinity of the Proposed Development



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Table 3.5: Journey Time Performance in the Vicinity of the Proposed Development (May 2024 TAG data book)

Route	AM Peak					PM Peak				
	Observed	Modelled	Abs Diff	% Diff	Pass	Observed	Modelled	Abs Diff	% Diff	Pass
M1 (Jn22 to 27) Northbound	20:30	22:26	01:56	9.4%	✓	21:20	23:43	02:22	11.1%	✓
M1 (Jn22 to 27) Southbound	22:15	23:52	01:36	7.2%	✓	20:52	22:52	02:00	9.6%	✓
A42 (Jn11 to M1) Northbound	14:27	15:48	01:21	9.4%	✓	13:27	15:27	02:00	14.8%	✓
A42 (Jn11 to M1) Southbound	13:59	15:19	01:20	9.5%	✓	13:33	15:07	01:34	11.5%	✓
A50 (A515 to B6540) Eastbound	17:55	19:16	01:21	7.6%	✓	17:03	19:34	02:31	14.8%	✓
A50 (A515 to B6540) Westbound	17:57	19:16	01:19	7.3%	✓	18:20	19:22	01:01	5.6%	✓
A453 (M1 Jn23a to A52) Northbound	13:29	14:58	01:28	10.9%	✓	11:45	14:15	02:30	21.3%	×
A453 (M1 Jn23a to A52) Southbound	13:08	13:40	00:32	4.0%	✓	14:24	14:43	00:19	2.2%	✓

Figure 3.5: M1 (Junction 22 to Junction 27) Journey Time Validation Graphs (May 2024 TAG data book)

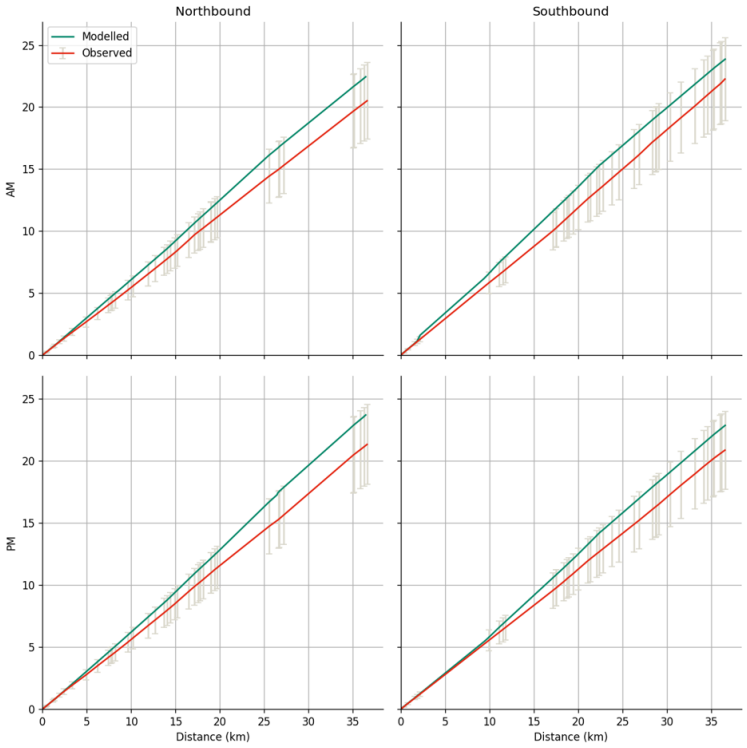


Figure 3.6: A42 (Junction 11 to M1) Journey Time Validation Graphs (May 2024 TAG data book)

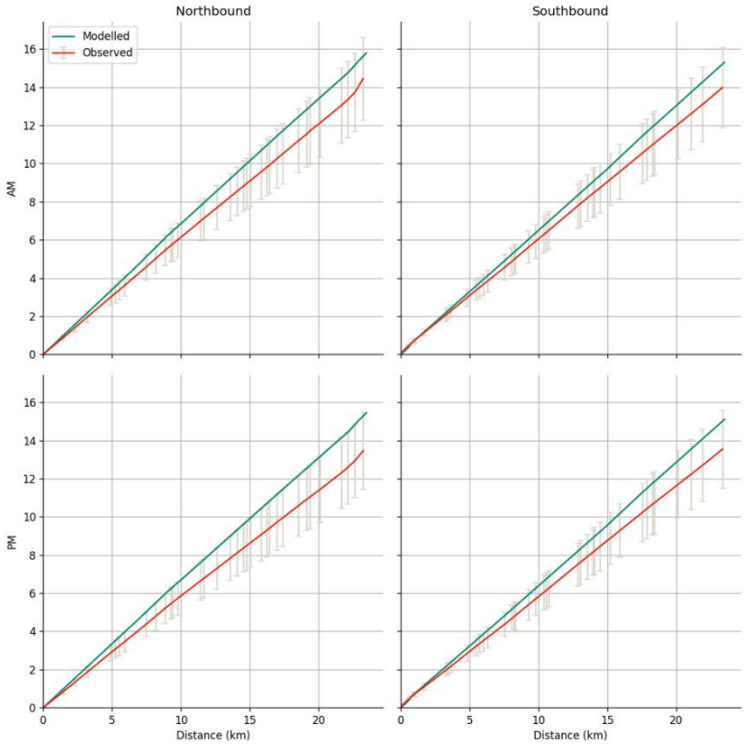


Figure 3.7: A50 (A515 to B6540) Journey Time Validation Graphs (May 2024 TAG data book)

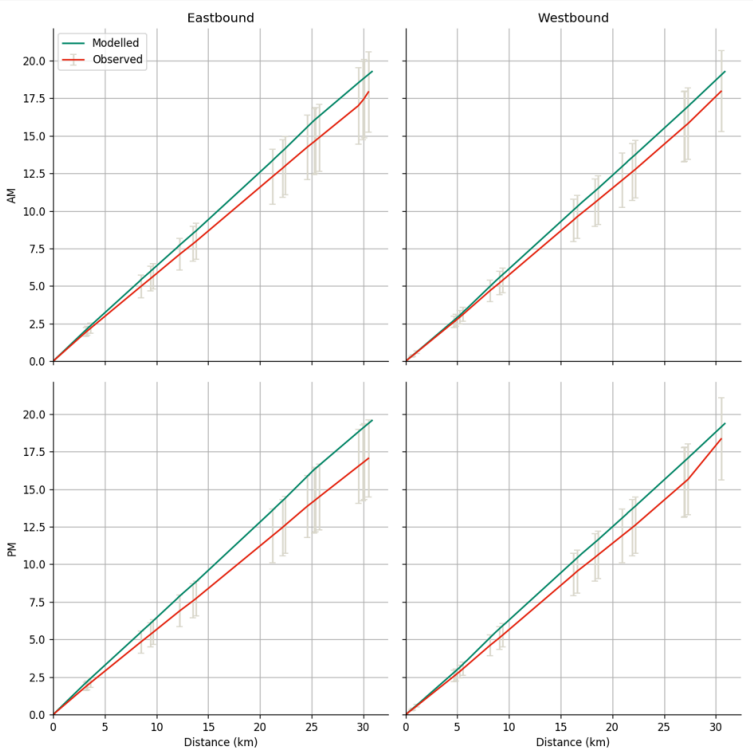
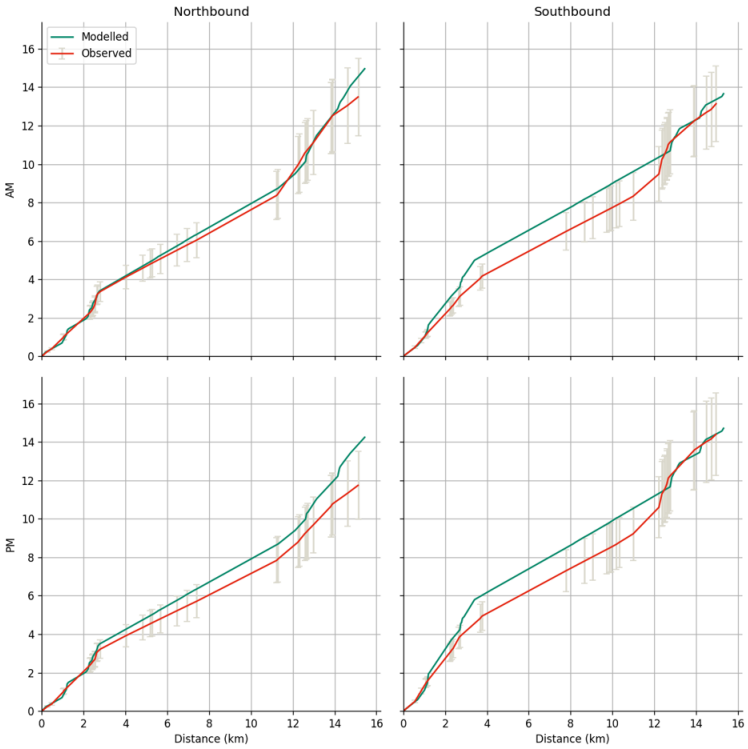


Figure 3.8: A453 (M1 Junction 23a to A52) Journey Time Validation Graphs (May 2024 TAG data book)



Section 4 – Summary

4.1.1 The $EMFM_{2019}$ highway model represents an average weekday in April / May / June in 2019 for the AM Peak and PM Peak hours. This review is focused on the suitability of the model for use in the strategic assessment of the proposed EMG Phase 2 development.

4.1.2 A base year model review for the $EMFM_{2019}$ was undertaken in 2022 / 2023 for the EMG Phase 2 application. However this previous version of the $EMFM_{2019}$ used the draft November 2022 TAG data book.

4.1.3 It is proposed that the $EMFM_{2019}$ is updated to use the latest May 2024 TAG data book for the EMG Phase 2 application. To demonstrate that the impact on the 2019 base year modelled flows due to the update of TAG data book version is small, modelled flow difference checks were undertaken. For most links, the absolute modelled flow differences between the 2019 base year model with the draft November 2022 TAG data book and the latest May 2024 TAG data book are fewer than 25 PCUs, and as such do not materially affect the overall base year model performance results.

4.1.4 The screenline, link flow and journey time performance in the vicinity of the proposed development has also been checked. For link flow and journey time performance, the pass rates for the model with May 2024 TAG data book are consistent with the model with the draft November 2022 TAG data book. For screenline performance, the pass rate for the AM Peak hour is consistent; however, for the PM Peak hour, the Nottingham Cordon (outbound) marginally passes for the model with the draft November 2022 TAG data book (i.e. difference of -4.9%) but marginally fails for the model with the latest May 2024 TAG data book (i.e. difference of -5.1%).

4.1.5 Overall, the $EMFM_{2019}$ (with the May 2024 TAG data book) is considered suitable for the strategic assessment of the proposed East Midlands Gateway Phase 2 development.

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About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle — from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivalled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of $13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

APPENDIX 8: PRTM Proforma v14 & Uncertainty Log v7

Leicestershire County Council

Pan Regional Transport Model (PRTM) Development Testing Proforma

Foreword:

Before completing this form for development management purposes, it is recommended that you contact Leicestershire County Council (LCC) and seek advice from the Highway Development Management (HDM) team on the proposed use of PRTM. The HDM team can be contacted at hdc@leics.gov.uk.

Although not a requirement it is strongly recommended that potential stakeholders, e.g. LCC HDM, National Highways, sign-off on your brief and trip generation before submitting this proforma to Environment and Transport Modelling Services Contract (E&T MSC). This should ensure that any subsequent work proposal through E&T MSC is as accurate as possible in terms of scope, timescales and cost.

Please note that E&T MSC and wider Network Data and Intelligence (NDI) Team work independently from all other teams within LCC, including HDM. Please ensure any correspondence intended for the HDM team is sent to the case officer for your (pre)application; or, if unknown, to HDM's generic inbox: hdc@leics.gov.uk.

On the following page is an indicative flowchart summarising the general transport modelling process for using the PRTM to inform client Transport Assessments; this is a typical approach and has been simplified to a generic process – each individual application may differ from the below and as above advice should be sought from the HDM team.


Pre-meeting between client and HDM/stakeholders to discuss brief and suitability of PRTM
HDM/stakeholder approved brief and PRTM proforma submitted to E&T MSC framework by client
E&T MSC to send brief and proforma to Framework consultants and commission as applicable.
Commissioned consultant produces model validation report and extracts relevant network scheme and planning data assumptions
Client circulates local model validation report and model assumptions to stakeholders for sign-off
Inception meeting is arranged once sign-off is complete to discuss the modelling methodology
Commissioned consultant undertakes forecasting of all scenarios bar mitigation runs, creates report for client
Client interprets model forecast results and suggests and agrees junctions, with relevant stakeholders, for further assessment
Client undertakes further assessment and formalises mitigation packages
Commissioned consultant undertakes forecasting of mitigation scenario and creates addendum to forecasting report
E&T MSC commission complete

Leicestershire County Council

Section 1: Client Details

Name:	Paul Wilson
Company:	BWB Consulting Ltd (on behalf of Segro)
Telephone:	07889995471
E-mail:	paul.wilson@bwbconsulting.com
Date:	10/10/2024

Section 2: Project Details

Title:	East Midlands Gateway Phase 2
District / Location:	Land to the southeast of EMA, and southwest of M1J23a in North West Leicestershire DC's jurisdiction
Background:	EMFM modelling has recently been undertaken for forecast years of 2025 and 2035 (reference EMGP2 proforma Revision 6). Due to the passage of time with submitting the EMG2 application, revised EMFM modelling is now required for higher forecast years of 2028 (opening year) and 2038 (10 years post opening). There have been changes to the evening peak hour trip rates and the scale of development, which is now being proposed at 400,000sqm on EMG2 (to account for 300,000sqm of ground floorspace and 100,000sqm of potential B8 mezzanine floorspace) plus 30,000sqm of B8 floorspace on EMG1 (Plot 16). The entire EMG2 development is now proposed to be served by a single point of access via a fourth arm from the A453/Hunter Road roundabout. Plot 16 on EMG1 would be served by the existing access via Wilder's Way. The revised uncertainty log also picks up on any new developments during the higher opening and future years. This version of the proforma sets out the updated modelling work based on the above changes. We are however considering other scenarios and a 'vision and validate' sensitivity test based on more up to date EMG1 trip rates and considering in detail the activity generated by mezzanines. However, further information will need to be shared, and methodology agreed with the TWG, for these scenarios, which will be set out in due course in a separate proforma assuming such an approach is indeed continued with.

Section 3: Development Details

Please input your development phasing into the provided table on the right; if it is a mixed-use site, please separate dwellings and employment floorspace with a comma. This table will act as an overview to the detail provided further in this proforma as well as the supporting brief (if available).

There are two main forms of assessment that the E&T MSC offers, a highway-only model run and a full-PRTM model run. Your HDM Case Officer will confirm which type of assessment is needed for your development.

For highway-only model runs please provide details in section 3a, for full model runs please provide details in section 3b.

Please provide a brief description of the access arrangements in the box below; if there are preliminary scheme drawings available please provide these alongside submission of this proforma via email attachment.

Brief description of access arrangements:

Having reflected on matters recently, the access proposals to EMG2 are being revised. One main access is now being introduced, via a fourth arm of the existing A453/Hunter Road roundabout to serve 100% of the development plus the bus interchange, which can then connect directly into the site.

A separate emergency access would also be provided, but that won't affect the revised modelling work.

Development on Plot 16 of EMG1 would be served by the existing access via Wilder's Way.

.

Year	No.
2021	Figure
2022	Figure
2023	Figure
2024	Figure
2025	Figure
2026	Figure
2027	Figure
2028	*130,000sqm*
2029	*100,000sqm*
2030	*100,000sqm*
2031	*100,000sqm*
2032	Figure
2033	Figure
2034	Figure
2035	Figure
2036	Figure
2037	Figure
2038	Figure
2039	Figure
2040	Figure
2041	Figure
2042	Figure
2043	Figure
2044	Figure
2045	Figure
2046	Figure
2047	Figure
2048	Figure
2049	Figure
2050	Figure
2051	Figure
Total	*430,000sqm*

Section 3a: Highway Model Only Development Details

Please provide either the agreed trip rates and/or trip generation for your development in the relevant tables below. Depending on your land use and agreed approach with LCC HDM, values may not be required for all three time periods.

Trip Rates:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

Employment: B2

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.376	0.057	0.433	-	-	-	0.046	0.363	0.408
HGV's	0.016	0.014	0.030	-	-	-	0.003	0.006	0.009
Total	0.392	0.071	0.463	-	-	-	0.049	0.369	0.417

Employment: B8

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.121	0.013	0.135	-	-	-	0.040	0.140	0.180
HGV's	0.019	0.023	0.041	-	-	-	0.025	0.015	0.040
Total	0.140	0.036	0.176	-	-	-	0.065	0.155	0.220

The B8 trip rates for the PM peak now mirror the 1600 to 1700 hour shoulder peak trip rates adopted for EMG1

Trip Generation:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

EMG2 (400,000sqm)

Employment: B2; 60,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	226	34	260	-	-	-	28	218	246
HGV's	10	8	18	-	-	-	2	4	6
Total	235	43	278	-	-	-	30	222	252

Employment: B8 340,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	411	44	455	-	-	-	136	476	612
HGV's	65	78	143	-	-	-	85	51	136
Total	476	122	598	-	-	-	221	527	748

Employment: TOTAL EMG2 DEVELOPMENT

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	637	78	715	-	-	-	164	694	858
HGV's	75	86	161	-	-	-	87	55	142
Total	711	165	876	-	-	-	250	748	998

Plot 16 EMG1 (30,000sqm)

Employment: B8 30,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	36	4	40	-	-	-	12	42	54
HGV's	6	7	13	-	-	-	8	5	13
Total	42	11	53	-	-	-	20	47	67

Section 3b: Full Model Run Development Details

Please provide the number of dwellings and/or employment floorspace, or preferably if known, jobs for each of the sub-categories below.

Employment Development Land Use:

Land Use	Class	Unit	Quantum	Jobs
Shops	A1	m^2		
Business	B1a	m^2		
General Industrial	B2	m^2	*60,000*	*TBC*
Storage or Distribution	B8	m^2	*370,000**	*TBC*
Research & Development	B1b	m^2		
Leisure	D2	m^2		
Hotels	C1	Beds		
Education	D1	Jobs		

** includes 340,000sqm of B8 floorspace on EMG2 and 30,000sqm of B8 floorspace on Plot 16 of EMG1*

Housing Development Land Use:

Land Use	Class	Dwellings
Dwellings	C3	

Section 4: Modelling Required

Assessment Years:

Please select your assessment years from the options below. Please note that if you need PRTM forecast years to infer model flows to correspond with data collection, you will need to select the 'shoulder' forecast years (i.e. inferring the 2018 model forecast year will require 2016 and 2021 PRTM forecast years). Bespoke individual forecast years may be requested with the "Other, please specify" option, but this does not guarantee inclusion in any provided proposal.

2014 (base) ☐	2016 ☐	2021 ☐
2026 ☐	2031 ☐	2036 ☐
2041 ☐	2046 ☐	2051 ☐
Other, please specify:	2028 and 2038 forecast years are required (year of opening and post 10 years). A revised 2022 forecast base year assessment is also required, alongside a 2023/2024 forecast base for air and noise quality purposes (exact approach TBC with AECOM post the meeting on 3/10/24).	

If required, please provide proposed phasing in each forecast year selected above, in the box below. An example has been included in green, please delete and populate with your data.

2022: 0% development (do minimum) 2028: 100% occupancy 2038: 100% occupancy

Assessment Options:

Please select which scenarios you will want testing, as well as defining which model year each scenario corresponds to as this can potentially be multiple forecast years for one scenario; this will depend on your discussions with HDM and their requirements.

Scenario	Choice	Model Year(s)
Core	Assumed	2022/2028/2038
Core + no development + access strategy	☐	
Core + development + no mitigation	Assumed	2028/2038
Core + development + mitigation	☒	2028/2038

Other, please specify:	The following scenarios will need testing as part of the Stage 1 modelling: i) 2019 baseline year (for air quality purposes) ii) 2022/2023/2024 forecast base year (2023 and 2024 TBC for noise and air quality purposes) iii) 2028/2038 forecast year without development (with EM Freeport and Local Plan related schemes, including Isley Woodhouse, Land West of Castle Donington and the Coaker Land schemes) iv) 2028/2038 forecast year with development (with EM Freeport and Local Plan related schemes, including Isley Woodhouse, Land West of Castle Donington and the Coaker Land schemes) v) Construction traffic – further information still to be provided NB Covid sensitivity testing is to be considered further for the TWG to agree the approach to be adopted in the Stage 2 modelling work; further information has been provided by AECOM/Jacobs to inform decision making There will be a need to run the mitigation schemes through the EMFM once agreed. This will test the core development trips included in this proforma plus a scenario with reduced development trips as part of a 'vision and validate' strategy, details to be provided. Please therefore include fee for two mitigation runs (hopefully this will be limited to one). Additional scenarios have been requested from an air and noise quality perspective which has been sent separately via a Technical Note from Buro Happold.

Time Period Selection:

Please select the time periods you would like your development assessed in.

AM (0800-0900)	☒
IP (average hour for 1000-1600)	☐
PM (1700-1800)	☒

Indicative list of Junctions for Further Assessment:

If known, please provide an indicative list of expected junctions that may be required for further assessment in the box below. This, in turn, will facilitate the delivery of strategic model outputs to inform any further detailed junction assessments. Failing that, a rough estimation of the number of junctions that **may** require further assessment will aid consultants in producing robust quotations within their proposals.

We have currently agreed the following 17 junctions will be modelled as part of the Transport Assessment, which we will require strategic model outputs for (NB LCountyC in particular have confirmed that they will agree the study area following modelling outputs). The purpose of this list is simply to allow AECOM to quote for providing detailed data over a defined area, albeit this may change later.

Junction 2) A453/Hunter Road Roundabout (Leicestershire)

Junction 3) Finger Farm Roundabout (National Highways)

Junction 4) A453/EMGP1 Signal Gyratory (National Highways)

Junction 5) M1 Junction 24 (National Highways)

Junction 6) A453/East Midlands Airport Signal Junction (Leicestershire)

Junction 7) A453/Grimes Gate Priority Junction (Leicestershire)

Junction 8) A453/The Green Priority Junction (Leicestershire)

Junction 9) A453/East Midlands Airport Roundabout (Leicestershire)

Junction 10) A453/Walton Hill Signal Junction (Leicestershire)

Junction 11) A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout (National Highways)

Junction 12) M1 Junction 23 (National Highways)

Junction 13) A50 Junction 1 (National Highways)

Junction 14) M1 Junction 25 (National Highways)

Junction 15) Station Road/Broad Rushes Roundabout (Leicestershire)

Junction 16) A453/Kegworth Road dumbbell Roundabouts (Nottinghamshire)

Junction 17) A453/Barton Lane/West Leake dumbbell Roundabouts (Nottinghamshire)

Section 5: Pre-Modelling Outputs

This section details the options available to the client pre-modelling; typically, in aid of model assurance for project stakeholders to ensure no abortive work is undertaken. Please de-select which pre-modelling outputs you do not require, as these are usually standard documents provided to HDM.

Project Specific Study Area Model Validation Report	☒
Local Planning Data Assumptions	☒
Network Scheme Uncertainty Log	☒

NB a project specific validation report is assumed not needed given a previous LMVR has already been produced; the hope being that the minor changes to the other two items above are a quick and simple exercise.

NNB AECOM confirmed in the last TWG that an addendum will be produced in light of TAG Databook changes and model comparisons undertaken.

Section 6: Post-Modelling Outputs

Highway Model Outputs:

The following highway model output options are available post-transport-model assignment. Some metrics below will need to be specified by the client after analysis of the forecasting report; for instance, “individual junction plots” which would tie in with the relevant sub-section in Section 4.

Area of Influence (AoI) (criteria defined as 5% and 30 PCU change)	Assumed
Highway Flow Changes within AoI	Assumed
Highway Delay Changes within AoI	☒
Individual Junction Plots – Turning Flows	☒
Individual Junction Plots – Volume/Capacity Ratio	☒
Maximum Volume/Capacity Ratio Plots	☒
Select Link Analysis of Development Traffic (link based)	☒
Provision of flow data for junction design/assessment	☒
AADT/AAWT	☒
The following model outputs would be required in shape file format for the purposes of our subsequent analysis (which may overlap with above). - AM/PM Peak flows classified into Lights/Heavies/Total - AM/PM/AADT Development only flows classified into Lights/Heavies/Total - Maximum Junction VoC - Link Delay - Link Queue - AADT classified into Lights/Heavies/Total - AAWT (24hr, 18hr, 8hr) classified into Lights/Heavies/Total - Mean speeds of links - Road Class Further to the above extraction of cordon matrices (actual flows) for the VISSIM modelling extent is required which includes the following junctions: - M1 J24; - M1 J24a southbound merge onto the M1 and M1 junction 24; - A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory; - M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads); - A453/Hunter Road/minor EMG Phase 2 access roundabout; The outputs from the cordon matrices should include: - Cordon matrices (in vehicle) for o Cars / LGVs / HGVs o AM Peak hour / PM Peak hour (including shoulder peaks if available) - The cordon matrices to be provided in spreadsheet format. The above should provide an exhaustive list of information requirements, however, as discussed with LCC's NDI team and AECOM during a meeting on 16/05/24 there may be benefit in	

including for a provisional additional fee of £10k for any other additional requests, which wouldn't be invoiced if not required.	

Variable Demand Model Outputs (full PRTM run required):

The following demand model output options are available post-transport-model assignment.

Mode Share reporting; PT, Car, Active	☐
Trip Distance, 24-hour trip making & sustainability	☐

Public Transport Model Outputs (full PRTM run required):

The following highway model output options are available post-transport-model assignment.

Change in travel time, distances & speeds	☐
Distribution Analysis/Diagrams of Development Traffic	☐
Travel Time Changes along Key Routes	☐
Public Transport Passenger Changes	☐

Environmental Model Outputs:

Environmental model outputs are available post-transport-model assignment. Please note that environmental outputs will require a separate commission via the E&T MSC Manager, please contact ETCF@leics.gov.uk if you require emission or dispersion modelling to support your application.

Section 7: Supporting Documents

Supporting Documents:

Please provide any supporting documents that have been selected below to the E&T MSC Manager upon delivery of your proforma.

Location Plan Access Scheme Drawings Development Masterplan (to be updated in the coming weeks)	☒ ☒ ☐
Other, please specify:	Click here to enter text

Client's Expected Timescales:

Please provide an approximation for your client's timescales for this modelling commission in the box below; please take into consideration HDM's and National Highways' standard response times and sign-off procedures to avoid unrealistic timescales being provided and slippage to your project.

As discussed with LCC's NDI team and AECOM during recent meetings there is an urgent need to pick the modelling work back up.

Section 8: Contact Details

Email the completed form, along with supporting documents to ETCF@leics.gov.uk

For queries regarding the modelling process please contact:

Laura Good – ETCF & E&T MSC Manager
Email: ETCF@leics.gov.uk

Version Control

Project East Midlands Gateway Phase 2
Document Uncertainty Log

Revision History

Revision	Details	Date
v1.0 draft	Housing and employment data for NW Leicestershire, and neighbouring districts for Derbyshire and Nottinghamshire, based on PRTM2.3 planning data version HH50Emp51, with additional information from: *Employment Input Spreadsheet for Planning Authority TB Notts CC Oct 11 Broxtowe.xlsx* *Housing Input Spreadsheet for Planning Authority TB Notts CC Oct 11 2021 Broxtowe.xlsm* *RBC Employment Input Spreadsheet for Planning Authority Rushcliffe.xlsx* *RBC Housing Input Spreadsheet for Planning Authority Rushcliffe.xlsx* Highway network assumptions, based on PRTM2.3 network assumptions with the following edits: - Shuttle signals at the old railway bridge on Tickow Lane - added - Buttercup Lane, Shepshed - added - A47 roundabout between Wykin Road and Outlands Drive - added - A47/Dan's Lane - added - B582 Barlestone Road / B585 Bosworth Lane signalisation - added - A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout) - added	14/09/2022
v1.1 draft	With updated EM Freeport data (ID Emp_North West Leicestershire_905 to Emp_North West Leicestershire_914)	05/10/2022
v2.0	Housing data: - Data for Leicester City added (blue text) 'Employment data: - Data for Leicester City added (blue text) - Freeport sites excluded - rows 124 to 126 and rows 133 to 140 have been updated to "N". -- It should be noted that for the sensitivity test for this application, the Freeport sites will be included (i.e. rows 124 to 126 and rows 133 to 140 will be included) Highway newtork assumptions: - row 72 Lutterworth East Development Associated Mitigations updated from "N" to "Y", certainty status updated from "Reasonably Foreseeable" to "More than Likely"	27/10/2022
v3.0	Housing data: - 2014 to 2019 data - greyed out as base year (2019) model will be used for this application - Rushcliffe - data updated based on updated housing data received on 25/11/2022 and 05/12/2022 - Broxtowe - rows 469 and 473 HS2 Innovation and Chetwynd Barracks sites - development phasing updated - Leicester City - 19 sites have been excluded (please refer to Col BA "Include"); trajectory for selected sites updated based on data received on 08/12/2022 Employment data: - 2014 to 2019 data - greyed out as base year (2019) model will be used for this application - rows 133 to 139 - Rushcliffe Uniper Site - typo correction for Col C from "Leicestershire" to "Nottinghamshire" - Rushcliffe - data updated based on updated housing data received on 14/12/2022 - NWL - Site of Former Sawley Crossroads Service Station (18/01115/FUL) and LAnd at East Midlands Point (Junction 23A) (18/02227/FULM) added Highway newtork assumptions: - row 162 A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout) - forecast year updated from "2026" to "2024" - row 111 Toton Innovation Hub (HS2) access - first forecast year updated from "2031" to "2026" - row 163 Toton Link Road scheme - added with first forecast year "2026" - Include maker is "N"	21/12/2022
v4.0	Employment data: - Land South Of Junction 1 Of The A50 Castle Donington Leicestershire (19/01496/OUTM) - added	22/02/2022
v5.0	Housing data and Employment data for North West Leicestershire have been updated for the next stage of modelling work for EMG Phase 2 to be undertaken around Summer 2024. Historic data (pre-2019) removed. -- Please note that the following NWL Local Plan sites have been added (assume these sites will be included in the Sensitivity Test only): --- Land North and South of Park Lane, Castle Donington (CD10) - 1,076 dwellings --- Isley Woodhouse (IW1) - 4,500 dwellings and 23,000sqm of employment floorspace (by 2040, 1,9000 dwellings and 4,600sqm employment floorspace) --- Land West of Hilltop Farm, Castle Donington (EMP89) - 6,000sqm office floorspace and 11,850sqm industry/warehousing floorspace --- Land to the north of J11 A/M42 (EMP82) - 28ha site area - potential for strategic distribution purposes Highway network assumptions: -- highway network assumptions have been updated to the latest version available which includes Scheme 187: --- Scheme 187 A50 J1 signalisation of two additional arms (Tamworth Road and Trent Lane) (opening year = 2025)	21/05/2024

v6.0	Employment data	26/06/2024

--- SEGRO EMG Phase 2 - development quantum updated from 300,000sqm to 400,000sqm
--- Land North of Remembrance Way (A453), Kegworth (EMP73 (part)) - 40,000sqm industry/warehousing floorspace - added (assume 50% industry, 50% warehousing; assumed trajectory 2025-2034)
--- Land North of Derby Road (A6), Kegworth (EMP73 (part)) - 30,000sqm industry/warehousing floorspace - added (assume 50% industry, 50% warehousing; assumed trajectory 2025-2034)
--- Uniper site - "include" marker chagned to "Y" for parts of the site. Trajectory for parts of the site updated from 2023/24 to 2025/26.

'Highyway network assumptions:
--- Scheme 188 Blaby Desford Road/Ratby Lane signalisation (2022) - added
--- Scheme 189 Nottinghamshire A52 Gamston roundabout (2023) - added
--- Scheme 190 Nottinghamshire A52 Wheatcroft junction (2028) - added
--- Scheme 191 Nottinghamshire A52 Nottingham Knight junction (2028) - added

v7.0	Housing data	04/07/2024

--- Land North and South of Park Lane, Castle Donington (CD10) - trajectory u[pdated to start from 2027; "include" marker updated to "Y"
--- Isley Woodhouse (IW1) - "include" marker updated to "Y"

Employment data
--- Uniper site - "include" marker updated to "Y"
--- EMIP - "include" marker updated to "Y"
--- EMA Aviation expansion - "include" marker updated to "Y"
--- Land West of Hilltop Farm, Castle Donington (EMP89) - "include" marker updated to "Y"
--- Isley Woodhouse (IW1) - "include" marker updated to "Y"
--- Land to the north of J11 A/M42 (EMP82) - "include" marker updated to "Y"
--- Land North of Remembrance Way (A453), Kegworth (EMP73 (part)) - "include" marker updated to "Y"
--- Land North of Derby Road (A6), Kegworth (EMP73 (part)) - "include" marker updated to "Y"

PlanID	Authority	District	Source	Type	Mode	ZoneSett	Settlement	MapLoc	MapNorth	Location	Description	SiteHectare	Unit	Year_2019	Year_2020	Year_2021	Year_2022	Year_2023	Year_2024	Year_2025	Year_2026	Year_2027	Year_2028	Year_2029	Year_2030	Year_2031	Year_2032	Year_2033	Year_2034	Year_2035	Year_2036	Year_2037	Year_2038	Year_2039	Year_2040	Year_2041	Year_2042	Year_2043	Year_2044	Year_2045	Year_2046	Year_2047	Year_2048	Year_2049	Year_2050	Year_2051	Unit Total	Include	
EMPLOYMENT DATA																																															
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							9066		429911		310091	Mercia Park		Floorspace	m2					12832					35497																							48329	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							9066		429911		310091	Mercia Park		Floorspace	m2					30272	279007				35497																							344776	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7202	Castle Don	467220		327220	Strategic Rail Freight Interchange on land north of East Midlands Airport/west of Junction 24 of the M1		Floorspace	m2	176701	16493	77394		222177			6967																							499629	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7201	Bardon	455616		311960	Rear of Otherwood Arms (Land Off Gartergate Way)		Jobs								836																							836	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7253	Ashby de l	457666		316564	Former Lounge disposal point		Floorspace	m2					23333	233333	233334																							70000	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7308	Ashby de l	456343		317344	Money Hill		Sitewit	mark									1	1	1	1	1																	5	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7308	Ashby de l	456343		317344	Money Hill		Sitewit	mark									1	1	1	1	1																	5	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7308	Ashby de l	456343		317344	Money Hill		Sitewit	mark									1	1	1	1	1																	5	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7123	Ashby de l	435286		317105	Money Hill new primary school/nursery/community hall (assume 30 jobs - AD 01/02/2024)		Jobs																															30	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Retail							7123	Ashby de l	435286		317105	Money Hill local retail centre		Floorspace	m2										560																					560	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7377	Castle Don	464111		328705	Willow Farm		Floorspace	m2				1928																											1928	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7377	Castle Don	464111		328705	Willow Farm		Floorspace	m2				1928																											1928	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7377	Castle Don	464111		328705	Willow Farm		Jobs						288																											288	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7273	Castle Don	464329		324092	Park Lane, Castle Donington		Sitewit	mark					0	0	0	0	0																							1	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7273	Castle Don	464329		324092	Park Lane, Castle Donington		Sitewit	mark					0	0	0	0	0																							2	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7273	Castle Don	464329		324092	Park Lane, Castle Donington		Sitewit	mark					0	0	0	0	0																							2	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7273	Castle Don	464185		324675	Fuddigtge Primary School, Park Lane, Castle Donington (assume 30 jobs - AD 01/02/2024)		Jobs						30																										30	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7254	Kegworth	468150		327647	Cott Beverages, Citrus Grove, Kegworth		Floorspace	m2		19771																															19771	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7268	Ashby	457580		317228	Land North Of Lountside Flagstaff(Land Interchange Ind Est)		Floorspace	m2		3788																															3788	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7268	Ashby	455726		316562	Manor Farm Vicarage Lane Packington Ashby De La Zouch		Floorspace	m2			1		1				1	1																						3	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7380	Castle Don	463916		327097	Donington Hall, Park Lane, Castle Donington		Floorspace	m2		812																															812	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7201	Measham	458039		311176	Measham Lodge Farm, Gallows Lane, Measham		Floorspace	m2				651																													651	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7201	Measham	458039		311176	Measham Lodge Farm, Gallows Lane, Measham		Floorspace	m2				1303																													1303	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							6155	Ellistown	444548		310660	Land at Victoria Lane, Ellistown (in HBBC and NWLDC)		Floorspace	m2				10268																													10268	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7277	Castle Don	463738		328386	Plot 1, EMDC, Castle Donington		Floorspace	m2		51450																															51450	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7284	Castle Don	463742		328293	Plot 1, EMDC, Castle Donington office hub		Floorspace	m2		735																															735	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7284	Castle Don	463776		328231	Plot 3, EMDC, Castle Donington		Floorspace	m2						41005																											41005	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7281	Sawley	465896		329830	Sawley Crossroads		Floorspace	m2											60000																					60000	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7254	Measham	459497		312532	J S Bloor Ltd Ashby Road		Floorspace	m2				910																													932	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7253	Measham	457666		311176	Measham Lodge Farm Gartergate Industrial Estate , Beveridge Lane		Floorspace	m2				1																												1	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7253	Measham	457666		311318	Plastic Omnium, Hurdlegtton Way, Measham		Floorspace	m2						2529																											2529	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7216	Hugglescot	462716		312052	The Limes, Midland Road		Sitewit	mark			1																													1	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7213	Coalville	464366		312855	Land at Bardon Road		Floorspace	m2				11186																													11186	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7213	Coalville	464366		312855	Land at Bardon Road		Floorspace	m2				6392																													6392	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7366	Appleby M	457773		309574	Redhill Farm, Top Street, Appleby Magna		Floorspace	m2							992																									992	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7366	Appleby M	457773		309574	Redhill Farm, Top Street, Appleby Magna		Floorspace	m2							128																									128	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7317	Ashby	457580		317228	Land North Of Lountside Flagstaff(Land		Floorspace	m2								3600																							3600	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7249	Kegworth	467432		324139	Midehill Farm Ashby Road		Floorspace	m2						432																											432	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7201	Bardon	465183		311739	Land At Fi elds Road		Floorspace	m2			2296																													2296	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7286	Coalville	439450		315343	Heather Birdsworths Newton Road Heather Coalville Leicestershire LE67 2RD		Floorspace	m2							832	832	833																							2497	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7286	Coalville	439450		315343	Heather Birdsworths Newton Road Heather Coalville Leicestershire LE67 2RD		Floorspace	m2							1209	1209	1209																							3627	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7201	Coalville	464729		312486	Land East Of Nep Way Coalville Leicestershire		Floorspace	m2					13767																												13767	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7201	Coalville	464729		312486	Land East Of Nep Way Coalville Leicestershire		Floorspace	m2					13767																												13767	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7254	Kegworth	468618		327394	Slack and Parr , Long Lane Kegworth		Floorspace	m2		-3191																															-3191	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7007	Coalville	462248		313479	Worksplace 17 Highfield Street Coalville Leicestershire LE67 3BR		Floorspace	m2						-2137																										-2137	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7270	Ashby	459063		317966	Former Arla Dairy Smisby Road		Floorspace	m2		-5																															-5	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7131	Ashby	455180		317988	32 Tournament Way Ashby De La Zouch Leicestershire LE65 2UU		Floorspace	m2		-725																															-725	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Leisure							7131	Ashby	455180		317988	32 Tournament Way Ashby De La Zouch Leicestershire LE65 2UU		Floorspace	m2		725																															725	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7131	Ashby	455387		317976	York House Smisby Road Ashby De La Zouch Leicestershire LE65 2UG		Floorspace	m2						-839																											-839	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Leisure							7220	Coalville	463177		315127	Whitwick & Coalville Leisure Centre, Land Adjacent To A511 Stephenson Way Coalville Leicestershire		Floorspace	m2						5592																											5592	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Retail							7259	Ashby	457147		317146	Plot 2 Ashby Gateway Smithy Road Ashby De La Zouch Leicestershire		Floorspace	m2		1915																															1915	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7123	Ashby	458975		317088	Ashby Hastings Primary School, Holywell Farm Burton Road Ashby De La Zouch Leicestershire LE65 2LP (assume 30 jobs AD - 01/02/2024)		Jobs						30																											30	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7115	Ashby	455895		317030	Ivanhoe College North Street Ashby De La Zouch Leicestershire LE65 1HE (assume 10 jobs AD - 01/02/2024)		Jobs							10																											10	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							9058	Coalville	463609		315507	Land Off Grange Road Grange Road Hugglescote Leicestershire		Floorspace	m2															1000																			1000	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							9058	Coalville	463975		313484	Land Off Beveridge Lane Coalville (assume 30 jobs AD - 01/02/2024)		Jobs											30																							30	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Leisure							9058	Coalville	463699		315507	Land Off Grange Road Grange Road Hugglescote Leicestershire		Floorspace	m2												499																					499	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							9058	Coalville	463699		315507	Land Off Grange Road Grange Road Hugglescote Leicestershire (assume 30 jobs AD - 01/02/2024)		Jobs													30																					30	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Health							9058	Coalville	463699		315507	Land Off Grange Road Grange Road Hugglescote Leicestershire		Floorspace	m2												500																					500	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Leisure							7202	Breedon	465309		323014	Priory Nursery Garden Centre Ashby Road Breedon On The Hill Derby DE73 8AZ		Floorspace	m2								175																									175	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7277	Castle Don	464698		327798	Sherwood Self Store Station Road Castle Donington Derby DE74 2NJ		Floorspace	m2						-2480																										-2480	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Retail							7277	Castle Don	464698		327798	Sherwood Self Store Station Road Castle Donington Derby DE74 2NJ		Floorspace	m2						-1786																										-1786	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7269	Castle Don	464895		327148	Castle Donington High School And College Mount Pleasant Castle Donington Derby DE74 2LN (assume 10 jobs AD - 01/02/2024)		Jobs								10																										10	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7317	Ashby	455628		316405	SA Market Street Ashby De La Zouch Leicestershire LE65 1AF		Floorspace	m2					106																												106	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7131	Ashby	455249		317971	26 Tournament Way Ashby De La Zouch Leicestershire LE65 2UU		Floorspace	m2		32																															32	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7131	Ashby	454842		318051	Holywell Farm Smisby Road		Floorspace	m2		350																															350	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7263	Ashby	456775		317640	Plots L1 Ed Resolution Road Ashby De La Zouch Leicestershire		Floorspace	m2						223																												223	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7277	Castle Don	464376		328791	Plot 2B Willow Farm, Castle Donington		Floorspace	m2						208																												208	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7277	Castle Don	464376		328791	Plot 2B Willow Farm, Castle Donington		Floorspace	m2						1928																												1928	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7277	Castle Don	464376		328791	Plot 2B Willow Farm, Castle Donington		Floorspace	m2						1928																												1928	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7202	Coalville	462414		314458	1-4 Old Station Close Coalville Leicestershire LE67 3FH		Floorspace	m2		78																																78	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7202	Coalville	462414		314458	1-4 Old Station Close Coalville Leicestershire LE67 3FH		Floorspace	m2		78																																78	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7265	Coalville	464996		312207	Aerials, Tax h Street, Hilltop Ind. Est. Coalville		Floorspace	m2		140																																140	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7059	Coalville	461385		314483	Units 23 And 24 Sinbston Drive		Floorspace	m2				94																															94	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7226	Coalville	464179		316279	Vicarage Forest Farm Oaks Road Whitwick Coalville Leicestershire LE67 5QP		Floorspace	m2				94																															94	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7217	Hugglescot	463416		312409	Grange Farm, Grange Road		Floorspace	m2				133																															133	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7256	Measham	459487		312532	J S Bloor Ltd Ashby Road		Floorspace	m2				910																															910	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7283	Moira	461608		315638	Gilliam Ln 1 - 3 Ashby Road		Floorspace	m2						-603																												-603	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7114	Ashby De L	455701		316843	9, 10, 10a And 10 Brook Street Ashby De La Zouch Leicestershire LE65 1HA		Floorspace	m2						-1																												-1	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7283	Moira	461595		315270	Secura Lidelink Measham Road		Floorspace	m2		-682																																-682	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7269	Castle Don	464113		327324	37 Market Street Castle Donington Derby DE74 2LB		Floorspace	m2						-553																												-553	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7252	Castle Don	466087		325648	Future House Asg.sys Road Castle Donington Derby Derby DE74 2SA		Floorspace	m2						-120																												-120	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7007	Coalville	462352		313485	Worksplace 17 Highfield Street Coalville Leicestershire LE6 3bR		Floorspace	m2						-2137																												-2137	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7116	Ashby De L	455638		316821	6 Elford Street Ashby De La Zouch Leicestershire LE65 1HH		Floorspace	m2		-25																																-25	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7276	Donisthorp	457156		316516	Mallycrow Coaches Hill Street Donisthorpe Swadlincote Derby DE12 7PL		Floorspace	m2		-236																																-236	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7207	Coalville	461262		311648	Interlink Way S Bardon Coalville Leicestershire LE67 1LA		Floorspace	m2		-276																																-276	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7305	Ashby	455825		315750	4 Mill Farm Lane Ashby De La Zouch Leicestershire LE65 1GR		Floorspace	m2						16																												16	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7208	Ellistown	444105		310693	Land At Battleflat Lodge Farm Victoria Road Stanton Under Bardon LE67 3FA (Plot 3)		Floorspace	m2						2304																												2304	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7208	Ellistown	444105		310693	Land At Battleflat Lodge Farm Victoria Road Stanton Under Bardon LE67 3FA (Plot 3)		Floorspace	m2						2304																												2304	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7265	Coalville	464988		312160	Land Rear Of Unit Off Tax h Street Franks Road Bardon Leicestershire		Floorspace	m2						1678																												1678	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7265	Coalville	464988		312160	Land Rear Of Unit Off Tax h Street Franks Road Bardon Leicestershire		Floorspace	m2						1678																												1678	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7284	Castle Don	463198		328075	Plot 4 East Midlands Distribution Centre Trent Lane Castle Donington DE74 2HL		Floorspace	m2						30196																												30196	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7202	Ellsworth	461542		323617	The Crew Yard Langley Priory Way Cum Langley Ellsworth DE78 2QZ		Floorspace	m2						193																												193	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7205	Coalville	463396		316251	Former Church Hall North Street Whitwick Leicestershire LE67 5HB		Floorspace	m2				19																															19	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7205	Coalville	463396		316251	Former Church Hall North Street Whitwick Leicestershire LE67 5HB		Floorspace	m2				146																															166	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7111	Ashby	455795		316737	52 Market Street, Ashby		Floorspace	m2						-123																												-123	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7230	Coalville	462961		314561	3 The Courtyard Interlink Road Coalville Leicestershire LE67 4LP		Floorspace	m2						-75																												-75	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7052	Coalville	462338		314171	3B Belvoir Road Coalville Leicestershire LE67 3PE		Floorspace	m2						-47																												-47	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7233	Coalville	462645		314688	Unit 4 Apollo Court Coalville Leicestershire LE67 3FD		Floorspace	m2						-95																												-95	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7233	Coalville	462645		314688	Unit 4 Apollo Court Coalville Leicestershire LE67 3FD		Floorspace	m2						-95																												-95	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7286	Heather	439140		311642	Thorntree Farm Ravenstone Road Heather Coalville Leicestershire LE67 2SJ		Floorspace	m2							610																												610	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7286	Heather	439140		311642	Thorntree Farm Ravenstone Road Heather Coalville Leicestershire LE67 2SJ		Floorspace	m2							127																												127	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7249	Sawley	466681		330707	Walker Mouvement Ltd Tamworth Road Sawley Long Eaton Nottingham NG10 3AE		Floorspace	m2							127																												127	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7233	Coalville	463236		313918	117 London Road Coalville Leicestershire LE67 3JG		Floorspace	m2									-252																									-252	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7286	Coalville	439626		310662	MTS Logistics Mill Lane Heather Coalville Leicestershire LE67 2QE		Floorspace	m2									-1388																									-1388	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7201	Coleorton	465130		317879	Rowell And Son Anchor Lane Coleorton Coalville Leicestershire LE67 8HA		Floorspace	m2									-147																									-147	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7118	Ashby	455182		316497	Rhead Eq House 6 - 8 Wilkie Way Street Ashby De La Zouch Leicestershire LE65 2FU		Floorspace	m2									-477																									-477	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Warehousing							7280	Castle Don	463193		324925	Donington Hall Park Lane Castle Donington Derby DE74 2SS		Floorspace	m2									-2675																									-2675	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Industry							7280	Castle Don	463193		324925	Donington Hall Park Lane Castle Donington Derby DE74 2SS		Floorspace	m2									-378																									-378	Y	
IntEmp	Emp_NorthLincolnshireN	North West	Employment Office							7111	Ashby	455828		316737	60 Market Street Ashby De La Zouch Leicestershire LE65 1AN		Floorspace	m2	

| | | |

Highway Network Scheme Assumptions

Scheme No.	Location	Scheme Name	Included from...	Included
16	Earl Shilton	Access arrangements for SUE / Highway improvements for SUE	2026	Y
17	Barwell	Access arrangements for SUE / Highway improvements for SUE	2026	Y
18	Lubbesthorpe	Access arrangements for SUE including strategic traffic link to the A563 Lubbesthorpe Way	2021	Y
20	Loughborough	A512 widening B591 to M1 J23, improvements to J23 and completion of dualling thereafter to either Snell's Nook Lane or Epinal Way junction	2021	Y
23	Coalville	4. Bardon Road Link: Southern section only	2026	Y
24	Castle Donington	Western Link Road from Back Lane to Tops Hill, NWLDC package of measures to help mitigate growth planned	2021	Y
25	Lubbesthorpe	Link across M69 to join North and South of the Lubbesthorpe development.	2031	Y
26	Earl Shilton & Barwell	Highway improvements for SUE	2026	Y
27	Lubbesthorpe	Highway improvements for SUE	2026	Y
30	Loughborough	West of Loughborough SUE (access from the north via the A6 roundabout)	2022	Y
36	Blaby	Desford Crossroads	2026	N
37	Harborough	Harborough Strategic Development Area	2021	Y
38	Charnwood	North of Birstall SUE	2026	Y
39	Charnwood	Mountsorrel Lane, Rothley Link Road	2021	Y
40	Charnwood	A512 junction improvements	2021	Y
46	North of East Leicester	North of East Leicester Development Network - Thorpebury (previously Thurmaston) SUE.	2026	Y
53	Leicester City	Traffic Calming Schemes (Phase 2)	2021	Y
60	Leicester City	Welford Road	2021	Y
63	Leicester City	Waterside Development	2026	Y
66	Leicester City	Belgrave Gate South	2020	Y
70	Leicester City	Lancaster Road	2020	Y
71	Leicester City	Mansfield Street & Church Gate	2021	Y
72	Leicester City	SMBS Access to Burleys Way	2021	Y
73	Leicester City	Vaughan Way	2020	Y
74	Leicester City	Ashton Green	2021	Y
108	Leicester City	LNW2 Ravensbridge Drive / Blackbird Road	2020	Y
104	Melton	MMDR Northern Section	2026	Y
105	Melton	MMDR Eastern Section	2026	Y
106	Melton	MMDR Southern Section	2026	Y
109	Melton	Gladman's Site (Leicester Rd and Kirby Lane Access)	2021	Y
114	Leicester City	Beaumont Leys Anstey Lane Improvements	2021	Y
115	Hinckley	Hinckley Rugby Road Corridor Improvements - Phase 4	2023	Y
116	Leicester City	Putney Road West Improvement	2022	Y
117	Lutterworth	Frank Whittle Roundabout approaches	2021	Y
601	Lutterworth	Lutterworth East Development (Development Access (A4304, Gilmorton Road and A426))	2026	Y
602	Lutterworth	Lutterworth East Development associated mitigations	2031	Y
603	Lutterworth	Lutterworth East Development (Link Road between A4304 and A426)	2031	Y
604	Lutterworth	Lutterworth East Development (Gilmorton Road bridge bus restriction)	2026	Y
119	Bardon Hill	Bardon Hill Link Road North Section	2026	Y
120	Coalville	Hoo Ash Roundabout	2025	Y
121	Coalville	Thornborough Road Roundabout	2025	Y
122	Coalville	Dual Carriageway from Thornborough Rd to Whitwick Road	2025	Y
123	Coalville	Whitwick Road Roundabout	2025	Y
124	Coalville	Broom Leys Road Junction	2025	Y
125	Coalville	Bardon Link Road Junction	2025	Y
126	Coalville	Birch Tree Roundabout	2025	Y
128	Coalville	Flying Horse Roundabout	2025	Y
129	Coalville	Fieldhead Roundabout	2025	Y
134	Hinckley	DPD A5 Access	2021	Y
137	Padge Hall	Padge Hall Development Access	2024	Y
140	Leicester City	Abbey Park Road Cycle Provision	2021	Y
142	Blaby	A47/Kirby Lane Tesco Express	2021	Y
143	Leicester City	Abbey Street	2021	Y
144	Leicester City	A50 Groby Road Bus Lane	2022	Y
150	Harborough	Magna Park Extension Access - Mere Lane, Lutterworth	2021	Y
151	Harborough	Magna Park Extension Access - A5, Lutterworth	2026	Y

152	Blaby	Highway improvements for Lubbesthorpe SUE	2021	Y
153	Blaby	Foxhunter Roundabout Eastbound Approach	2021	Y
154	Loughborough	West of Loughborough SUE (connection to the northern arm of the A512 roundabout)	2036	Y
155	Harborough	B4114/B581 Signalisation Improvement, Broughton Astley	2026	Y
157	Blaby	Blaby DPD Site Access	2026	Y
158	Blaby	West of St Johns (Blaby DPD) Site Access	2026	Y
159	Harborough	Wigston Direction for Growth Site Access	2026	Y
160	Blaby	Everard Way Closure, Fosse Park	2020	Y
161	Loughborough	Access connection for the Science Park via the A512 roundabout	2031	Y
163	NWL	Money Hill Site Access A511	2026	Y
164	Derbyshire	Wragley Way (South Derbyshire) SUE Access A50	2031	Y
166	Derbyshire	Clifton (Rushcliffe) SUE Access	2022	Y
167	Derbyshire	EMIP A50 (Freeport)	2030	Y
169	Derbyshire	Toton Innovation Hub (HS2)	2026	Y
170	Nottinghamshire	Ratcliffe Power Station A453 (Freeport)	2030	Y
171	Rugby	Rugby Radio Station - A5 Access	2022	Y
174	North West Leicestershire	Mercia Park	2020	Y
175	Leicester City	Western Park Golf Course	2029	Y
176	Harborough	Kettering Road Signalisation	2021	Y
177	Charnwood	Shuttle signals on Tickow Lane (over bridge)	2022	Y
178	Charnwood	Buttercup Lane in Shepshed	2022	Y
179	Blaby	Dans Lane (A47)	2023	Y
180	Hinckley	B582 / B585 signalisation	2023	Y
181	Hinckley	A47 roundabout between Wykin Rd and Outlands Dr	2021	Y
502	M6 J10-13	M54-Stafford ALR	2021	Y
504	M54-M6 Toll	New Link Road min 2 lane motorway	2024	Y
507	M6 J13-J16	Stafford South to Stoke ALR	2022	Y
510	M1 J13-16	MK South - J16 ALR	2022	Y
513	M40 M42	M40 J16-M42 J3 ALR	2026	Y
516	A46 Coventry	Remove Binley and Walsgrove roundabouts M40-M6 as 'expressway standard'(ie all grade separated junctions)	2026	Y
520	A46 Toll Bar End	Grade separated jcn at TBE & Stonebridge Hwy to 3 lanes	2021	Y
526	Newark N	Dualling Newark N bypass first stages now in RIS 2	2031	Y
527	Newark S	A1-A46 link S of Newark; part constructed. Not in MRTM list	2031	Y
528	Lincoln E	A15-A158; under construction	2021	Y
529	Lincoln S	A158-A46; *sketchy details*; envisaged as dual carriageway… Assumed costing will be similar to Lincoln E bypass and will be 60mph single	2031	Y
530	Grantham S	A1-A52 link bypassing Grantham; under construction	2023	Y
9	Warwickshire	M6 J2 - J4 SMART motorway	2021	Y
201	Nuneaton and Bedworth Borough	Coton Arches	2021	Y
202	Nuneaton and Bedworth Borough	A4254b Eastboro Way P1	2024	Y
203	Nuneaton and Bedworth Borough	College Street / A444	2026	Y
204	Nuneaton and Bedworth Borough	Transforming Nuneaton	2026	Y
205	Nuneaton and Bedworth Borough	Croft Road/Greenmoor Road Priority	2031	Y
206	Nuneaton and Bedworth Borough	A47 Old Hinckley Road	2024	Y
207	Nuneaton and Bedworth Borough	Coventry Road / Gipsy Lane	2026	Y
208	Nuneaton and Bedworth Borough	A4254 / B4114 / Eastboro Way	2026	Y
209	Nuneaton and Bedworth Borough	Nuneaton Northern Sites Link Road	2026	Y
210	North Warwickshire	B5000 Market Street/Bridge St Signals	2026	Y
211	North Warwickshire	A5 Dualling between Grendon and Dordon Junction	2033	Y
213	Rugby Borough	A426/A4071 Avon Mill Roundabout/Newbold Road/Hunters Lane Priority Junction	2026	Y
214	Rugby Borough	Ashlawn Road/Hillmorton Road	2021	Y
215	Rugby Borough	A5 Northern Access to DIRFT III	2021	Y
216	Rugby Borough	A5/A428 Halfway House Roundabout	2026	Y
217	Rugby Borough	M1 Junction 18	2031	Y
218	Rugby Borough	M6 to Coton House	2021	Y
219	Rugby Borough	A5 Southern Access to DIRFT III	2021	Y
221	North Warwickshire	A5 dualling Grendon to Atherstone	2031	Y
223	Rugby Borough	M6 J2 Signalisation	2024	Y
250	Nuneaton and Bedworth Borough	Callendar Farm Phase 2	2031	Y
251	Nuneaton and Bedworth Borough	Bermuda Triangle Project	2026	Y

252	Rugby Borough	Ansty Park Access (Combe Fields Road)	2020	Y
182	Castle Donington	Land South of A50 J1 Development Access	2024	Y
183	Hinckley	B4114 Coventry Rd / Broughton Rd widening	2021	Y
184	Shepshed	A512 Ashby Rd Quarry access/signalised jnc	2021	Y
185	Bardon	Tungsten Park, Bardon A511	2021	Y
186	NWL	EMAGIC Segro EMG Phase 2 Development Access	2028	N
306	Leicester City	St George Street (Queen St to Southampton St)	2022	Y
307	Leicester City	Dover Street (Granby Street Jct)	2024	Y
305	Leicester City	Granby St (Bishop St to Halford St)	2024	Y
304	Leicester City	Granby St (N'hampton St to St George's Way)	2022	Y
303	Leicester City	Pocklingtons Walk	2022	Y
302	Leicester City	Aylestone Road, Saffron Lane to Oxford Street (A426)	2023	Y
301	Leicester City	Saffron Lane (B5366)	2023	Y
149	Leicester City	Duns Lane/Braunstone Gate	2023	Y
148	Leicester City	Abbey Park Road (Eastern section and bridge)	2023	Y
147	Leicester City	Anstey Lane (A5630)	2022	Y
146	Leicester City	St. Margaret's to Birstall (A6)	2024	Y
145	Leicester City	Melton Road (A607)	2023	Y
77	Leicester City	Belgrave Gate/Haymarket/Church Gate Pedestrianisation	2020	Y
187	NWL	A50 J1 signalisation of two additional arms (Tamworth Road and Trent Lane)	2025	Y
188	Blaby	Desford Road/Ratby Lane signalisation	2022	Y
189	Nottinghamshire	A52 Gamston roundabout	2023	Y
190	Nottinghamshire	A52 Wheatcroft junction	2028	Y
191	Nottinghamshire	A52 Nottingham Knight junction	2028	Y
n/a	Derbyshire	A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout)	2024	Y
n/a	Broxtowe	Toton Link Road	2026	N

APPENDIX 9: EMFM Forecasting Report (document reference EMFM 2019 – East Midlands Gateway Phase 2: Forecasting Report v1.0)



EMFM 2019

East Midlands Gateway Phase 2: Forecasting Report

Delivering a better world

Quality Information

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
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Table of Contents

Section 1 – Overview 5
1.1 Introduction 5
1.2 Report Structure 7
Section 2 – Forecast Approach and Assumptions 8
2.1 Introduction 8
2.2 'Without Development' Assumptions 8
2.3 Proposed Development Access Assumptions 9
2.4 Proposed Development Trip Generation Assumptions 9
2.5 Proposed Development Trip Distribution Assumptions 9
Section 3 – Forecast Model Results 19
3.1 Introduction 19
3.2 Forecast Development Traffic 19
3.3 Forecast Flow Change 19
3.4 Area of Influence 23
3.5 Forecast Delay Change 24
3.6 Forecast Node Volume-Capacity Ratios 27
3.7 Forecast Junction Turning Flows 30
Section 4 – Summary of the EMFM Assessment 32
4.1 Summary of Assessment 32
Appendix A Planning Data Assumptions 34
Appendix B Network Assumptions 35

List of Tables

Table 2.1: Development Trip Generation (2028 and 2038) 9
Table A.1: Residential Development Assumptions (sites with more than 500 dwellings) (North West Leicestershire) 34
Table A.2: Employment Development Assumptions (sites with more than 750 jobs) (North West Leicestershire and East Midlands Freeport sites) 34
Table B.1: Highway Network Assumptions 35

List of Figures

Figure 1.1: Location of Proposed Development 5
Figure 1.2: Site Access Junction 6
Figure 2.1: HGV Trip Distribution to and from the Proposed Development for 2028 (AM) 11
Figure 2.2: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (AM) 12
Figure 2.3: HGV Trip Distribution to and from the Proposed Development for 2028 (PM) 13
Figure 2.4: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (PM) 14
Figure 2.5: HGV Trip Distribution to and from the Proposed Development for 2038 (AM) 15
Figure 2.6: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (AM) 16
Figure 2.7: HGV Trip Distribution to and from the Proposed Development for 2038 (PM) 17
Figure 2.8: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (PM) 18
Figure 3.1: Forecast Flow Change for 2028 'With Development (1a)' minus 'Without Development (1a)' 21
Figure 3.2: Forecast Flow Change for 2038 'With Development (1a)' minus 'Without Development (1a)' 22
Figure 3.3: Area of Influence 23

Figure 3.4: Forecast Delay Change for 2028 ‘With Development (1a)’ minus ‘Without Development (1a)’ 25
Figure 3.5: Forecast Delay Change for 2038 ‘With Development (1a)’ minus ‘Without Development (1a)’ 26
Figure 3.6: Forecast Node Volume-Capacity Ratio for 2028 ‘Without Development (1a)’ and the 2028 ‘With Development (1a)’ Scenarios 28
Figure 3.7: Forecast Node Volume-Capacity Ratio for 2038 ‘Without Development (1a)’ and the 2038 ‘With Development (1a)’ Scenarios 29
Figure 3.8: Location of Forecast Turning Flow Data 31

Section 1 – Overview

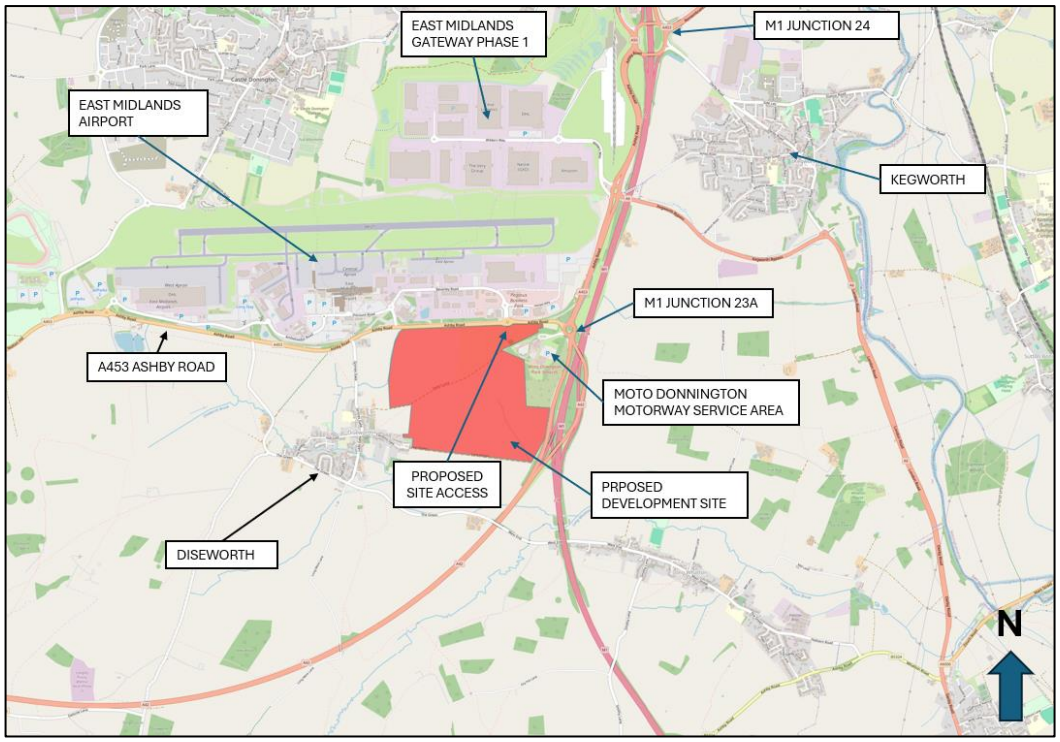
1.1 Introduction

1.1.1 The East Midlands Gateway (EMG) Phase 2 development is a proposed employment development of mixed B2 (general industrial) and B8 (storage or distribution) use, with capacity for 400,000sqm floorspace (300,000sqm ground floorspace and 100,000sqm of B8 mezzanine floorspace) of industrial use, comprising 340,000sqm B8 and 60,000sqm B2. In addition to this, 30,000sqm of B8 floorspace is proposed on EMG Phase 1 (Plot 16).

1.1.2 The development site is located to the south of East Midlands Airport in Leicestershire and west of the A42 and is expected to build out by 2031.

1.1.3 Figure 1.1 shows an indication of the location of the proposed EMG Phase 2 development, denoted by the area shaded in red. The proposed development has a total area of circa 250 acres located to the south of the A453 and East Midlands Airport itself, to the east of Diseworth village. M1 Junction 23a lies to the east of the site with the Moto Donnington Motorway Service Area (MSA) directly abutting to the north-east.

Figure 1.1: Location of Proposed Development[1]



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1.1.4 The proposed EMG Phase 2 development will access the highway network via a single point of access:

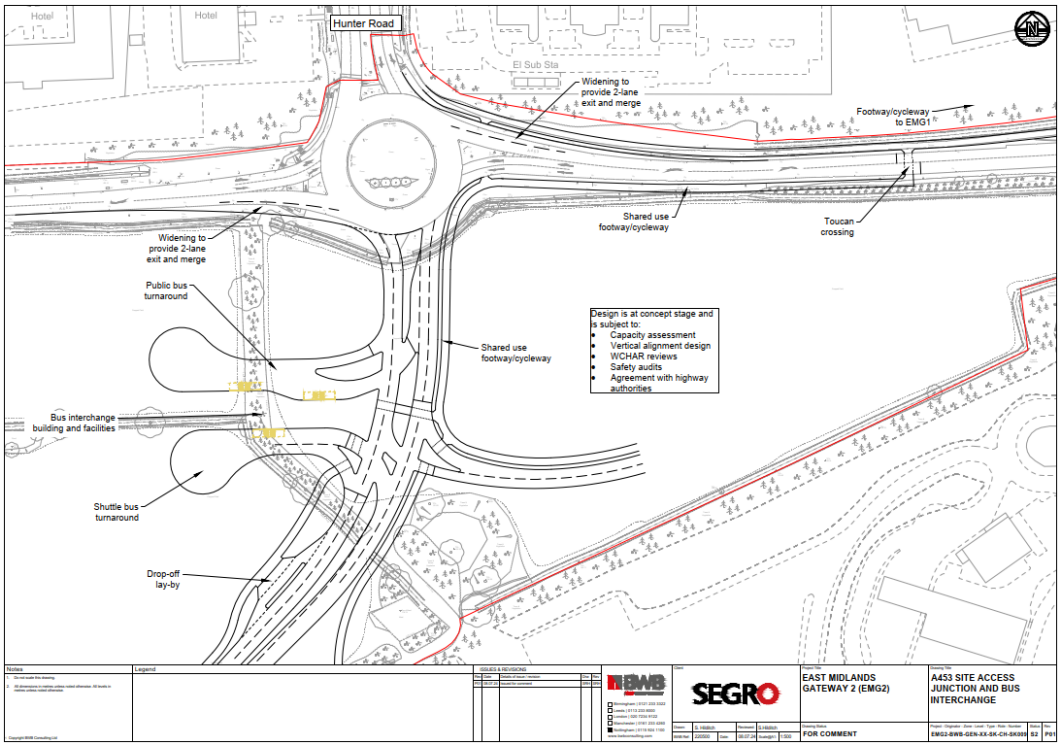
- a fourth arm off the existing A453 / Hunter Road roundabout, as shown in Figure 1.2.

1.1.5 The proposed EMG Phase 1 (Plot 16) development will access the highway network via:

- the existing access via Wilder's Way.

[1] Location of Proposed Development adapted from Technical Note 1 – Transport Scoping Note, East Midlands Gateway Phase 2 (EMG-BWB-GEN-XX-RP-TR-0001_TN1 Transport Scoping Note-S1-P3.pdf). Provided as part of the information pack with the PRTM Development Form for East Midlands Gateway Phase 2.

Figure 1.2: Site Access Junction[2]



1.1.6 The following development sites have been proposed at the nearby Isley Woodhouse site, on land west of Castle Donington, on land to the north of Kegworth, near Junction 11 of A/M42 and East Midlands Freeport sites. The forecast assumptions for the assessment of the East Midlands Gateway Phase 2 development will include these development sites:

- Isley Woodhouse (Site IW1), which comprises:
  - approximately 4,500 new homes and some 23,000sqm of employment floorspace (industry and warehousing)[3].
- Land North and South of Park Lane, Castle Donington (Site CD10), which comprises:
  - around 1,076 homes[4].
- Land West of Hilltop Farm, Castle Donington (Site EMP89), which comprises:
  - around 6,000sqm of offices and 11,850sqm of industry / smaller scale warehousing (use classes B2/B8)[4].
- Land North of Remembrance Way (A453) and Land North of Derby Road (A6), Kegworth (Site EMP73)[4], which comprises:
  - around 30,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of Derby Road (A6) site; and
  - around 40,000sqm of industry / small scale warehousing (use classes B2/B8) on Land North of A543 Remembrance Way site.
- Land to the North of J11 A/M42 (Site EMP82)[4], which comprises:
  - 28ha of employment land for strategic distribution purposes.

[2] EMG2-BWB-GEN-XX-SK-CH-SK009 S2 P01
[3] Draft North West Leicestershire Local Plan 2020-2024 – Proposed Houring and Employment Allocation for Consultation (www.nwleics.gov.uk/files/documents/proposed_housing_and_employment_allocations/Reg%2018%20%28Site%20Allocations%29%20Consultation_final.pdf)
[4] EMGP2 Uncertainty Log v7.0 (Jul 2024).xlsx

- East Midlands Freeport sites, which include the Uniper site (Ratcliffe), East Midlands Intermodal Park (EMIP) site, and the East Midlands Airport Aviation Expansion site.

1.1.7 AECOM has been commissioned to undertake strategic modelling to assess the potential traffic impacts of the proposed development using the East Midlands Freeport Model (EMFM) for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours.

1.1.8 The strategic modelling assessment for the proposed EMG Phase 2 development will be undertaken in three stages, as follows:

Stage 1a modelling (Proforma 14)

- 2022/2023/2024 'Without Development';
- 2028/2038 'Without Development (1a)' without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)); and
- 2028/2038 'With Development (1a)' with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)).

Stage 1b modelling (Proforma 14a)

- 2028/2038 'Without Development (1b)' without EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6)); and
- 2028/2038 'With Development (1b)' with EMG Phase 2 development (without Local Plan sites (as listed in Paragraph 1.1.6)).

Stage 2 modelling (details to be confirmed)

- 2028/2038 with EMG Phase 2 and with mitigation measures; and
- 2028/2038 with EMG Phase 2 construction.

1.1.9 This version of the report presents the forecast model results for Stage 1a only with Stage 1b and Stage 2 to follow.

1.1.10 This report is the Forecasting Report which documents the forecast model results for the EMFM strategic modelling assessment of the proposed development. This report follows the East Midlands Gateway Phase 2 Base Year Model Review Addendum report[5] which details the calibrated 2019 base year model review and performance in the vicinity of the proposed development site.

1.2 Report Structure

1.2.1 Following the introduction, this report contains the following sections:

- Section 2 – Forecast Approach and Assumptions: this section details the forecast assumptions applied within this assessment of the proposed development, including the assumed development trip generation and trip distribution.
- Section 3 – Forecast Model Results: the section details the forecast results requested as part of the brief.
- Section 4– Summary of the EMFM Assessment: this section provides a summary of the assessment of the proposed development.

[5] EMFM 2019 – East Midlands Gateway Phase 2: Base Year Model Review Addendum v1.0 (2024-08-19)

Section 2 – Forecast Approach and Assumptions

2.1 Introduction

2.1.1 This section sets out the forecast assumptions applied for this application of the EMFM, and the methodology adopted to create the required model forecasts.

2.1.2 The following forecast model scenarios have been produced for this version of the report:

Stage 1a modelling (Proforma 14)

- 2022/2023/2024 'Without Development';
- 2028/2038 'Without Development (1a)' without EMG Phase 2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)); and
- 2028/2038 'With Development (1a)' with EMG2 development (with all Freeport and Local Plan sites (as listed in Paragraph 1.1.6)).

2.1.3 The EMFM is a highway assignment model, linked to and derived from the PRTM (Pan-Regional Transport Model). For the development of the 2022, 2023, 2024 2028 and 2038 'Without Development' scenarios, an existing process to take the highway demand growth from the wider PRTM has been applied. Section 2.2 provides the 'Without Development' assumptions applied.

2.1.4 To produce the 'With Development (1a)' forecasts, the highway demand for the proposed development has been added to the EMFM 2028 'Without Development (1a)' and 2038 'Without Development (1a)' highway demand matrices and assigned in the EMFM. To estimate the development trip distribution, the gravity model within the PRTM has been used. Sections 2.3 to 2.5 provide the highway network and demand assumptions for the proposed development.

2.1.5 For information, both the EMFM and PRTM use the May 2024 TAG data book. This was the latest available TAG data book at the time of calibrating the PRTM. The EMFM was calibrated using the draft November 2022 TAG data book, again the latest TAG data book available during calibration. However, EMFM was updated to use the May 2024 TAG data book for this application. The impact on the 2019 base year modelled flows due to the update of the TAG data book was not considered material with most links having an absolute difference of fewer than 25 PCUs (Passenger Car Unit). The EMFM 2019, East Midlands Gateway Phase 2: Base Year Model Review Addendum (update to May 2024 TAG data book) (19/08/24) provides more detail.

2.2 'Without Development' Assumptions

2.2.1 The forecast planning and infrastructure schemes, in the format of an uncertainty log, were reviewed by the client and stakeholders.

2.2.2 Appendix A presents the planning data assumptions (residential and employment) within North West Leicestershire that have been incorporated in the forecast modelling. Given the number of developments in the uncertainty log, the reporting of the planning data are limited to residential sites with more than 500 dwellings and employment sites with more than 750 jobs. All available data that should be used in the modelling, irrespective of size, have been used in the model forecasts. The complete list of the planning assumptions, including data for neighbouring districts such as Rushcliffe, is included in the East Midlands Gateway Phase 2 Uncertainty Log v7.0[6].

2.2.3 Appendix B presents the forecast assumptions for the highway network for this application.

2.2.4 As discussed in Paragraph 2.1.3, the EMFM is a highway assignment model, and a process to take the highway demand growth from the wider PRTM has been applied. Planning data assumptions (housing and employment) have been input into the PRTM and the full PRTM has been run for 2022, 2023, 2024, 2028 and 2038. Planning forecasts were unconstrained (NTEM minimum[7]) for this application as noted in the proposal[8].

[6] EMGP2 Uncertainty Log v7.0 (Jul 2024).xlsx
[7] In the event that the planning data lead to below NTEM / TEMPro growth, the model reverts to NTEM / TEMPro as minimum.
[8] EMFM 2019 Fee Proposal – East Midlands Gateway Phase 2 v2.0 (2024-07-18)

2.3 Proposed Development Access Assumptions

2.3.1 To produce the 'With Development' network for 2028 and 2038, the assumed site accesses for the proposed development, as discussed in Paragraph 1.1.4, were added in the relevant 'Without Development' networks.

2.3.2 A development zone has been used to represent the proposed East Midlands Gateway Phase 2 development.

2.4 Proposed Development Trip Generation Assumptions

2.4.1 Development trip generation data for the proposed development were provided by the client which have been reproduced in Table 2.1.

Table 2.1: Development Trip Generation (2028 and 2038)[9]

	Light Vehicle Trips (in veh)			HGV Trips (in veh)			All (in veh)		
	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total	Departing (Out)	Arriving (In)	Total
East Midlands Gateway Phase 2 Development - Employment B2 (60,000sqm)									
AM Peak hour (08:00 to 09:00)	34	226	**260**	8	10	**18**	43	235	**278**
PM Peak hour (17:00 to 18:00)	218	28	**246**	4	2	**6**	222	30	**252**
East Midlands Gateway Phase 2 Development - Employment B8 (340,000sqm)									
AM Peak hour (08:00 to 09:00)	44	411	**455**	78	65	**143**	122	476	**598**
PM Peak hour (17:00 to 18:00)	476	136	**612**	51	85	**136**	527	221	**748**
East Midlands Gateway Phase 2 Development Total									
AM Peak hour (08:00 to 09:00)	78	637	**715**	86	75	**161**	165	711	**876**
PM Peak hour (17:00 to 18:00)	694	164	**858**	55	87	**142**	748	250	**998**
East Midlands Gateway Phase 1 (Plot 16) Development Total									
AM Peak hour (08:00 to 09:00)	4	36	**40**	7	6	**13**	11	42	**53**
PM Peak hour (17:00 to 18:00)	42	12	**54**	5	8	**13**	47	20	**67**

2.4.2 We assume that the proposed development will be fully build out (i.e. 100% occupancy) in the 2028 and 2038 'With Development (1a)" scenarios.

2.5 Proposed Development Trip Distribution Assumptions

2.5.1 It was agreed that the development trip distributions are to be based on the PRTM 'gravity model' approach.

2.5.2 Figure 2.1 to Figure 2.8 show the forecast development trip distribution separately for HGVs and light vehicles on the highway network for the 2028 and 2038 'With Development (1a)' scenarios in PCUs. For information, the PCU factor for HGV is 2.0 and the PCU factor for the other assignment vehicle types (i.e. cars and LGVs) is 1.0.

2.5.3 These figures show that the forecast HGV development traffic has a broadly similar distribution to and from the proposed development in both the AM Peak and PM Peak hours, and both forecast years (i.e. 2028 and 2038). HGVs are forecast to use the M1, A50 and the

[9] 241010 EMGP2 PRTM Development Form rev 14.docx

A453 Remembrance Way to and from Derby and the north, and the M1 and A42 to and from Leicester, Birmingham and the south.

2.5.4 For light vehicle traffic, the majority of development-related trips during the AM Peak hour in 2028 are forecast to use the M1 southbound and the A42 towards Birmingham. In the northbound direction development trips are forecast to route via the M1 and Castle Donnington Relief Road towards Derby. By 2038 AM Peak hour, a higher proportion of trips is forecast to route south from the A453 towards Diseworth to access Gelscoe Lane and the A42.

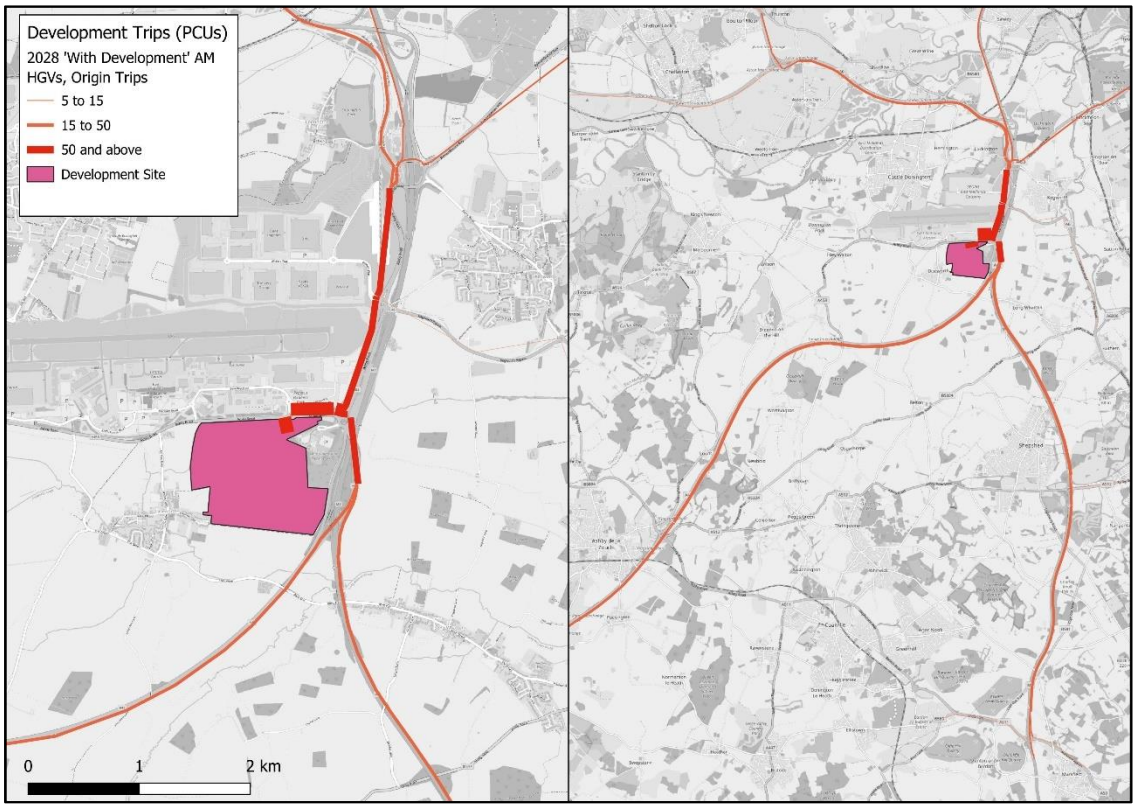
2.5.5 Light vehicle development trips from the development in the PM Peak hour in 2028 are forecast to route north via the M1, the A50, A453 Remembrance Way and south via the M1 and towards Diseworth to access the A42. This pattern is forecast in the reverse for the AM Peak hour development trips to the proposed development but with fewer trips on the M1 northbound and more trips on Castle Donnington Relief Road to avoid the congested M1 Junction 24.

2.5.6 The routeing patterns for the development trips for 2038 forecast scenarios are similar to their respective patterns in 2028, although 2038 has a slightly higher proportion of development trips on local roads and fewer on the SRN, due to the higher congestion around the M1 Junction 24 area in the later forecast year (i.e. 2038).

2.5.7 It should be noted that the local networks through Diseworth, Castle Donington and Kegworth have HGV restrictions applied. These restrictions are represented in the EMFM, and the HGV development trips are therefore forecast to route to and from the proposed development site via mainly the SRN.

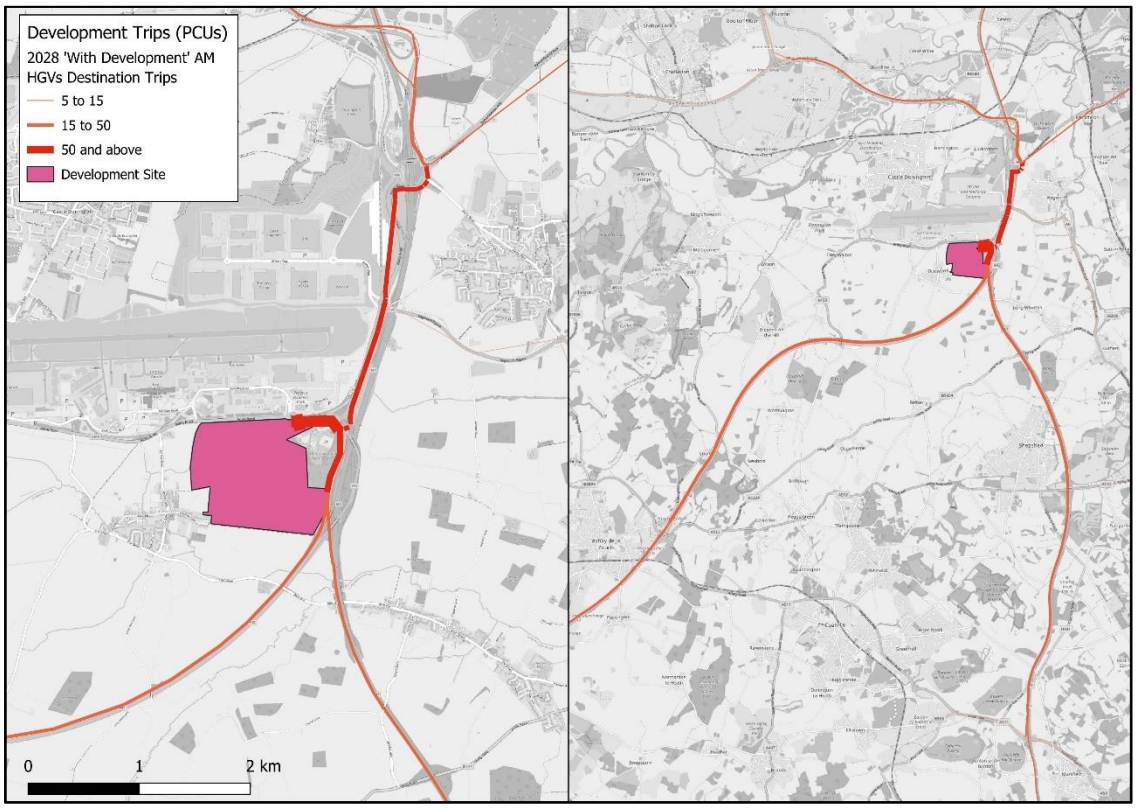
Figure 2.1: HGV Trip Distribution to and from the Proposed Development for 2028 (AM)

2028 'With Development (1a)' (AM), HGVs – From the Development



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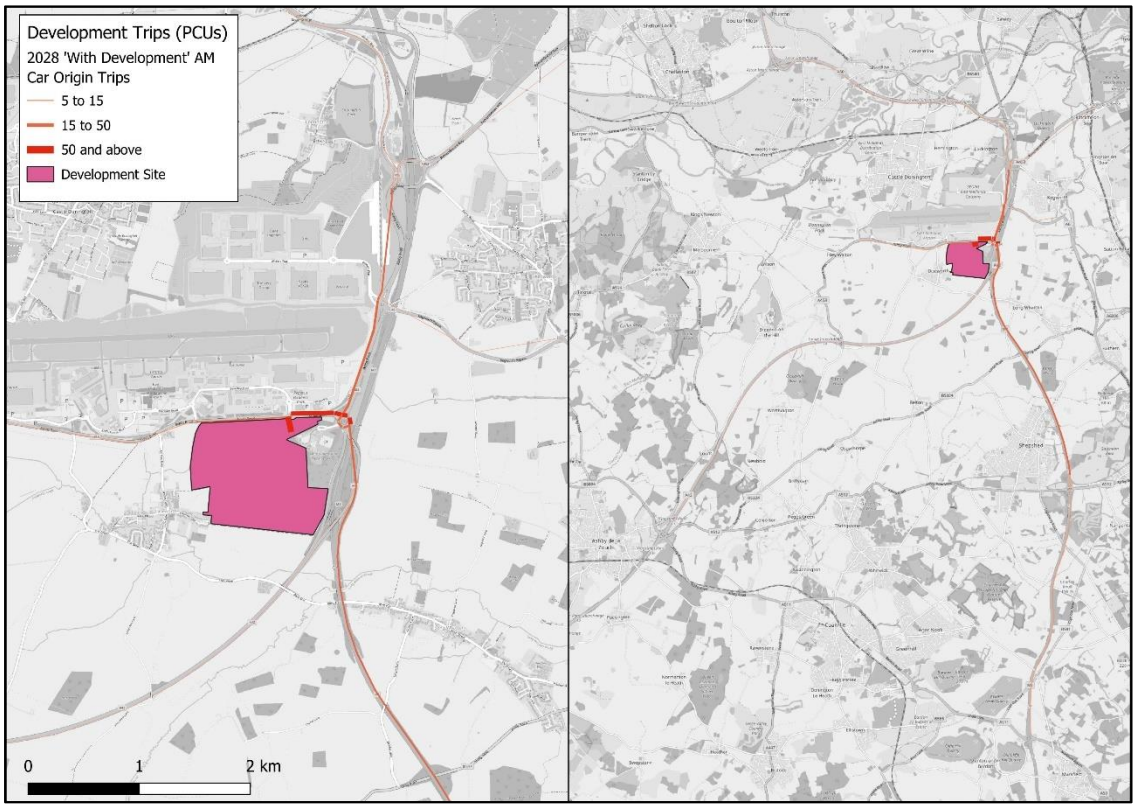
2028 'With Development (1a)' (AM), HGVs – To the Development



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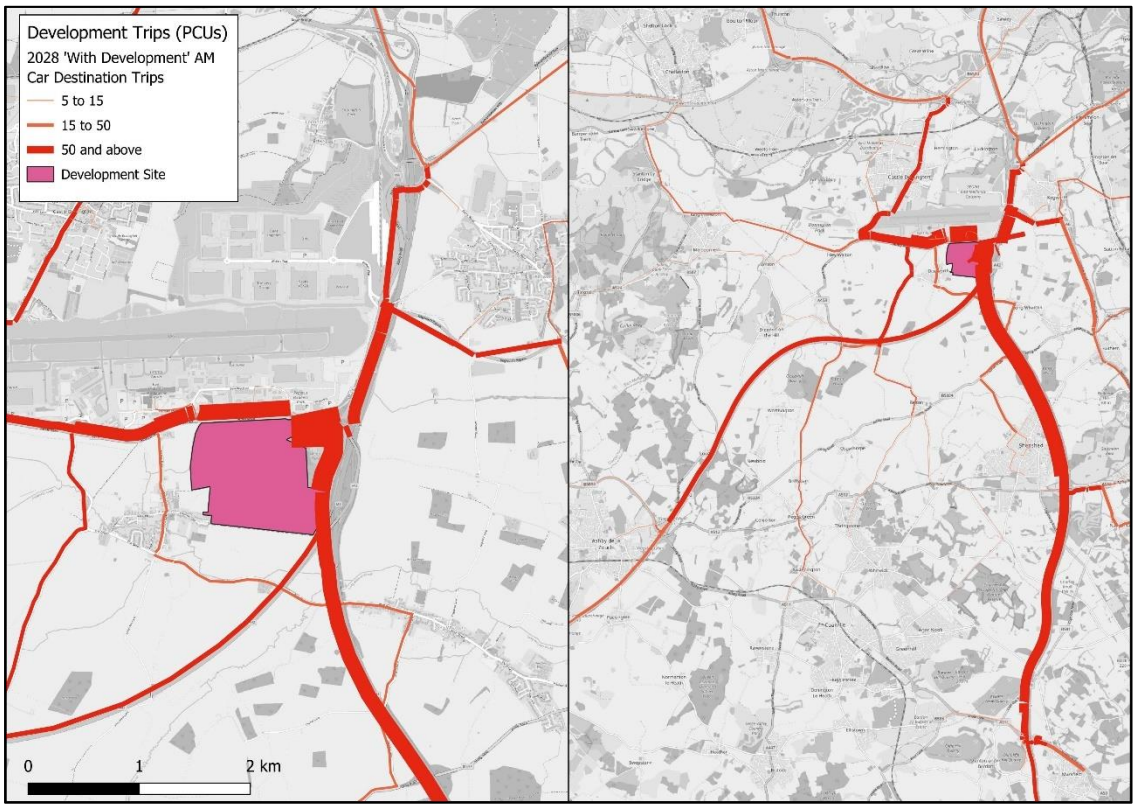
Figure 2.2: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (AM)

2028 'With Development (1a)' (AM), Light Vehicles – From the Development



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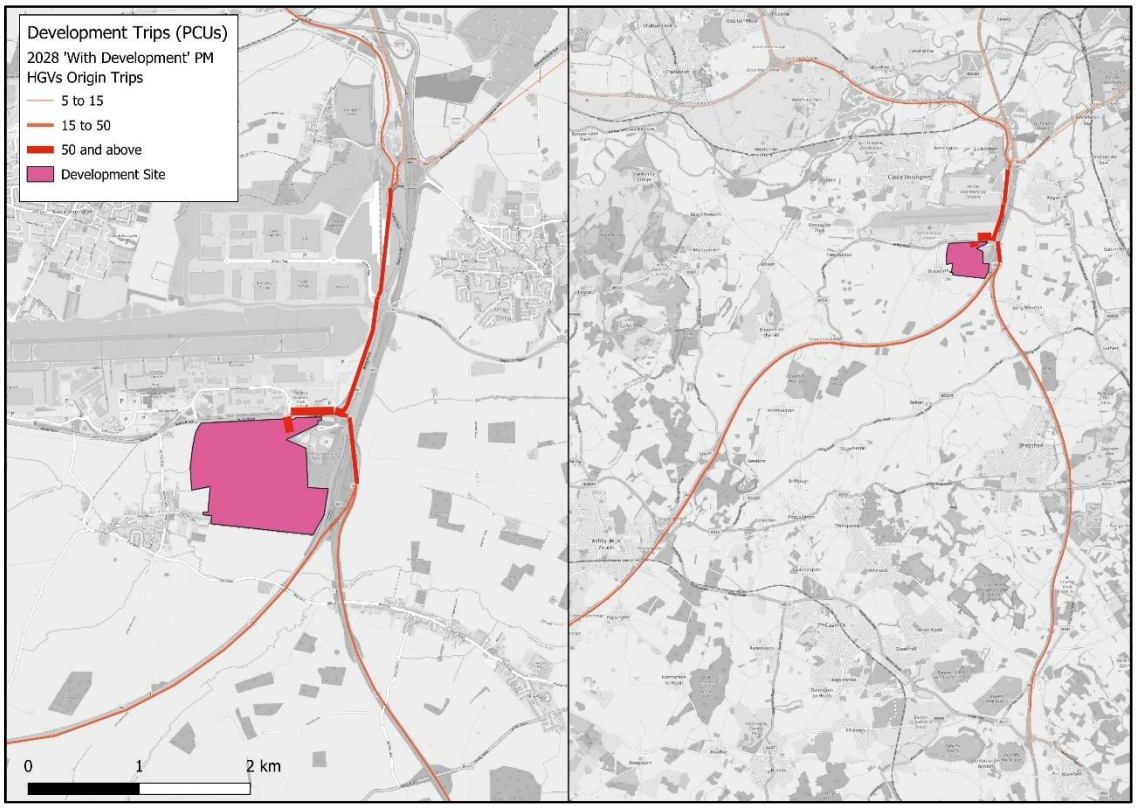
2028 'With Development (1a)' (AM), Light Vehicles – To the Development



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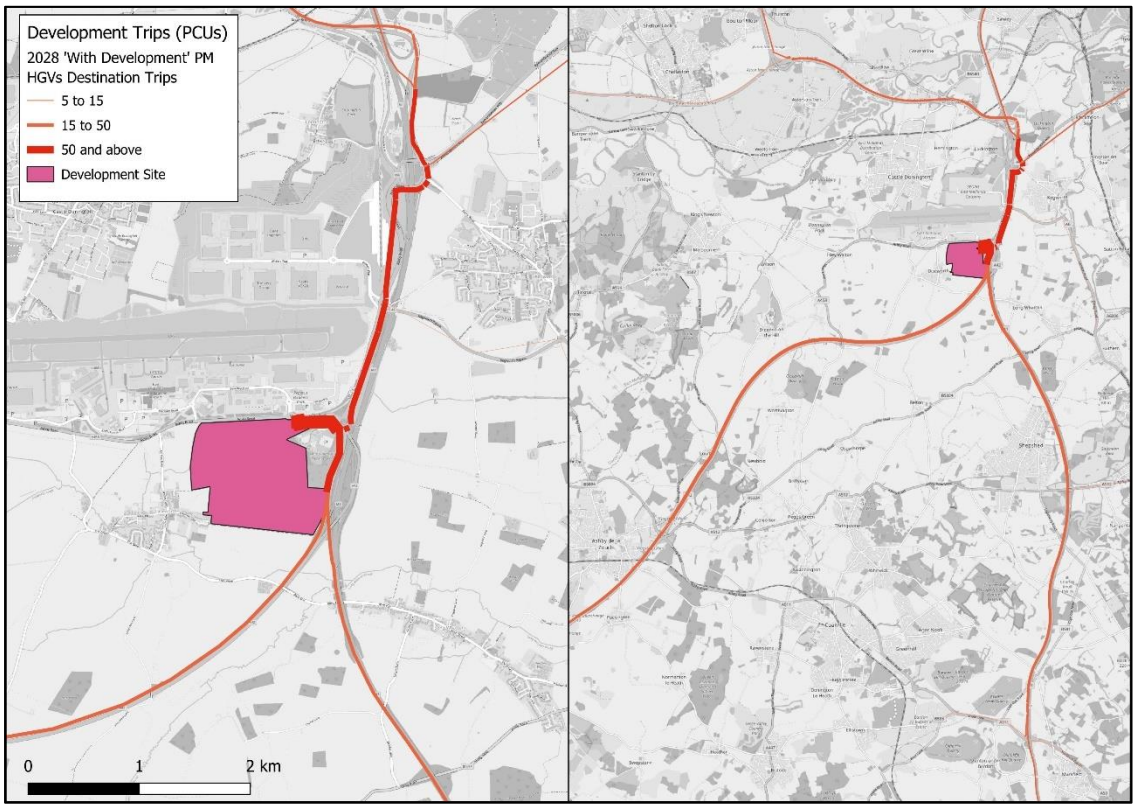
Figure 2.3: HGV Trip Distribution to and from the Proposed Development for 2028 (PM)

2028 'With Development (1a)' (PM), HGVs – From the Development



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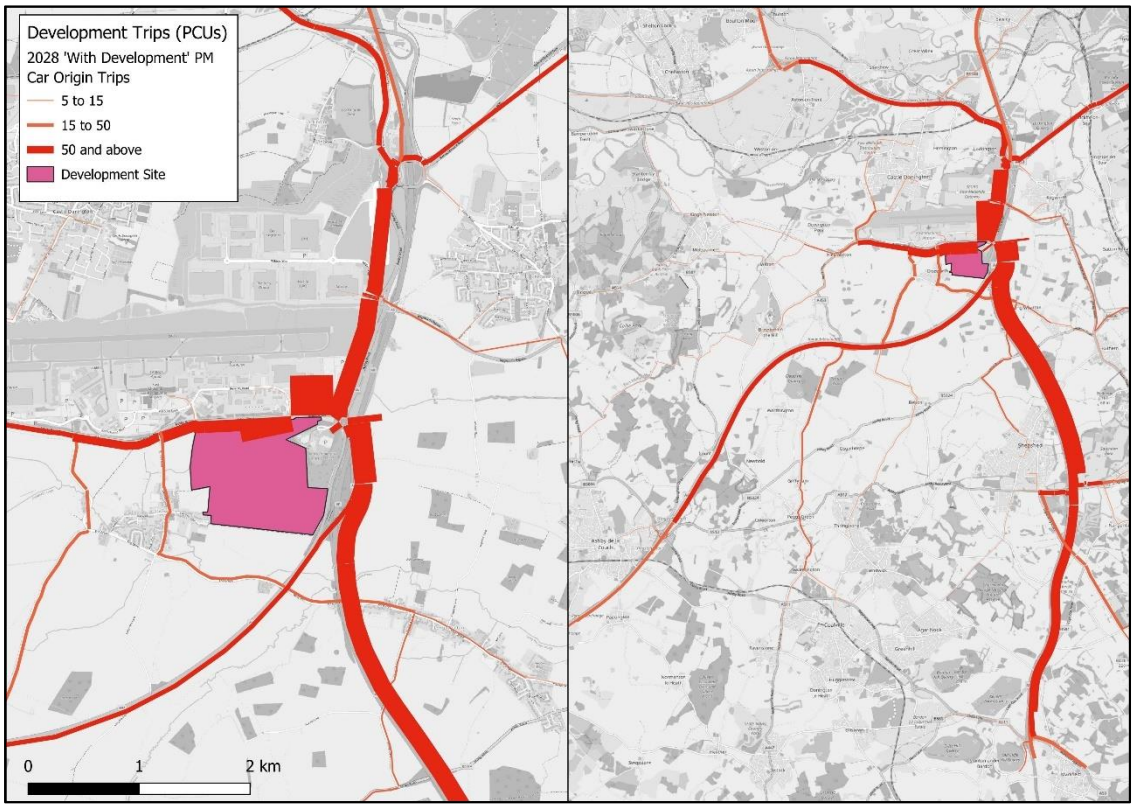
2028 'With Development (1a)' (PM), HGVs – To the Development



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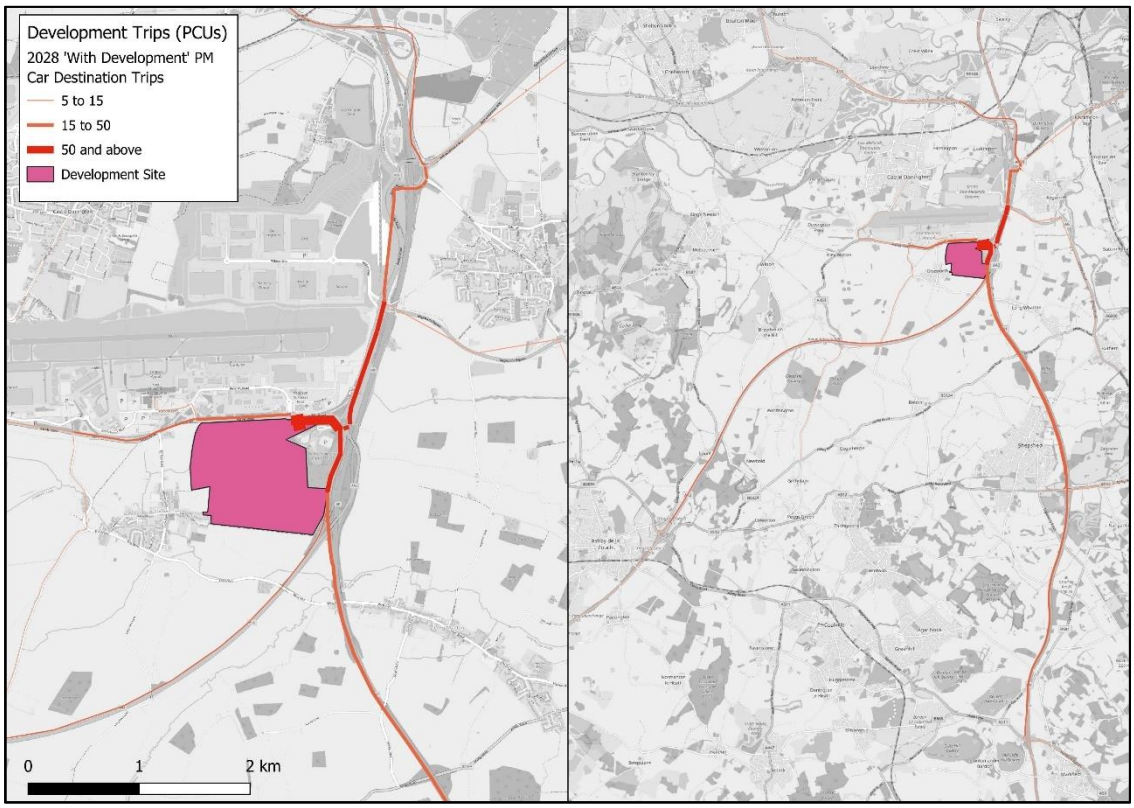
Figure 2.4: Light Vehicle Trip Distribution to and from the Proposed Development for 2028 (PM)

2028 'With Development (1a)' (PM), Light Vehicles – From the Development



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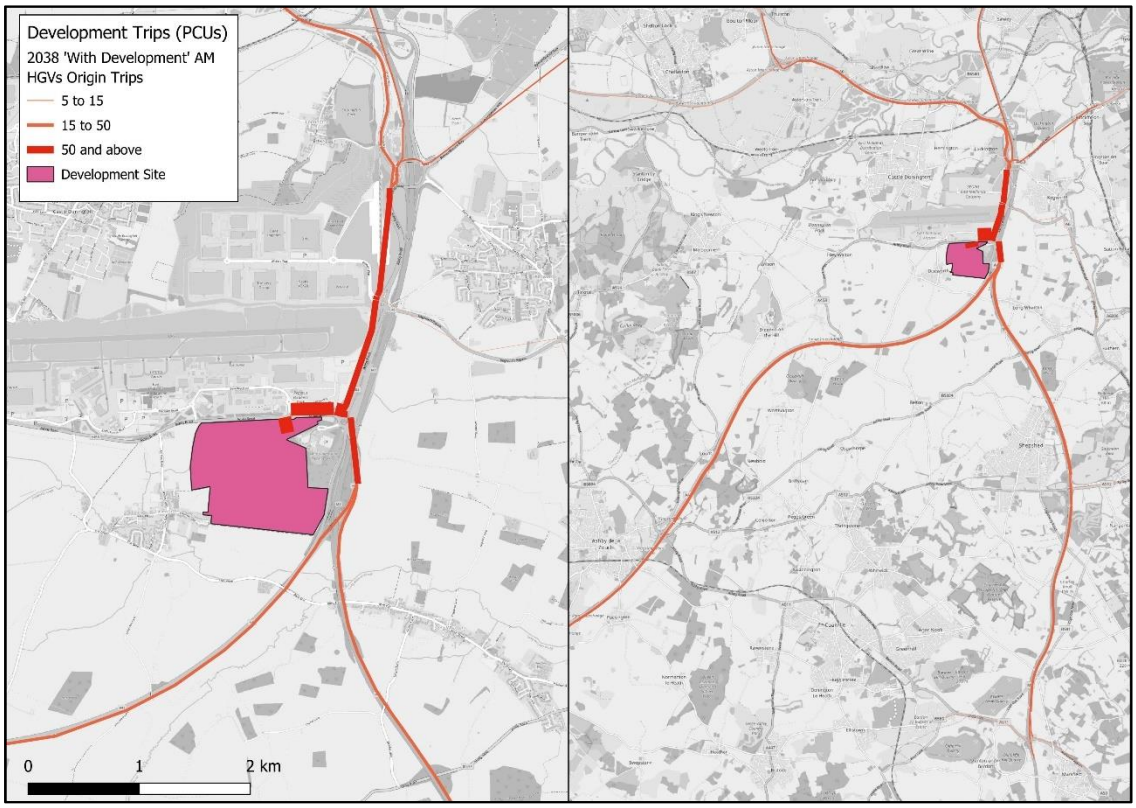
2028 'With Development (1a)' (PM), Light Vehicles – To the Development



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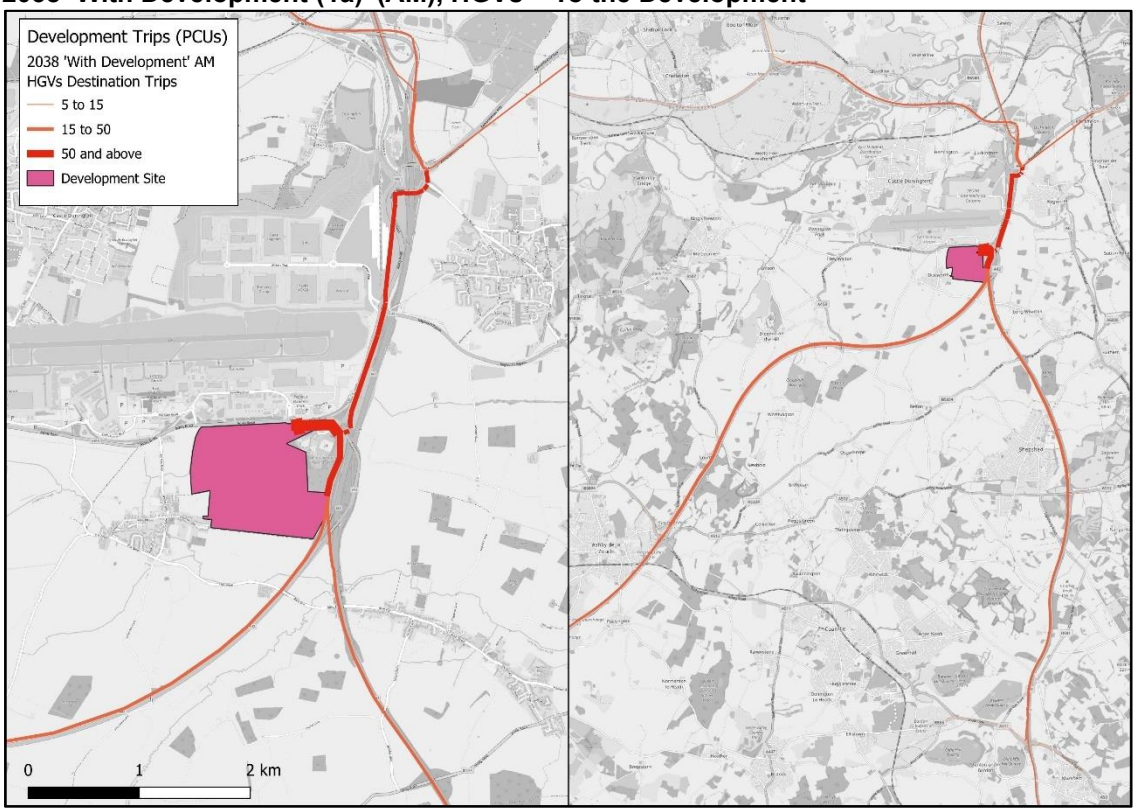
Figure 2.5: HGV Trip Distribution to and from the Proposed Development for 2038 (AM)

2038 'With Development (1a)' (AM), HGVs – From the Development



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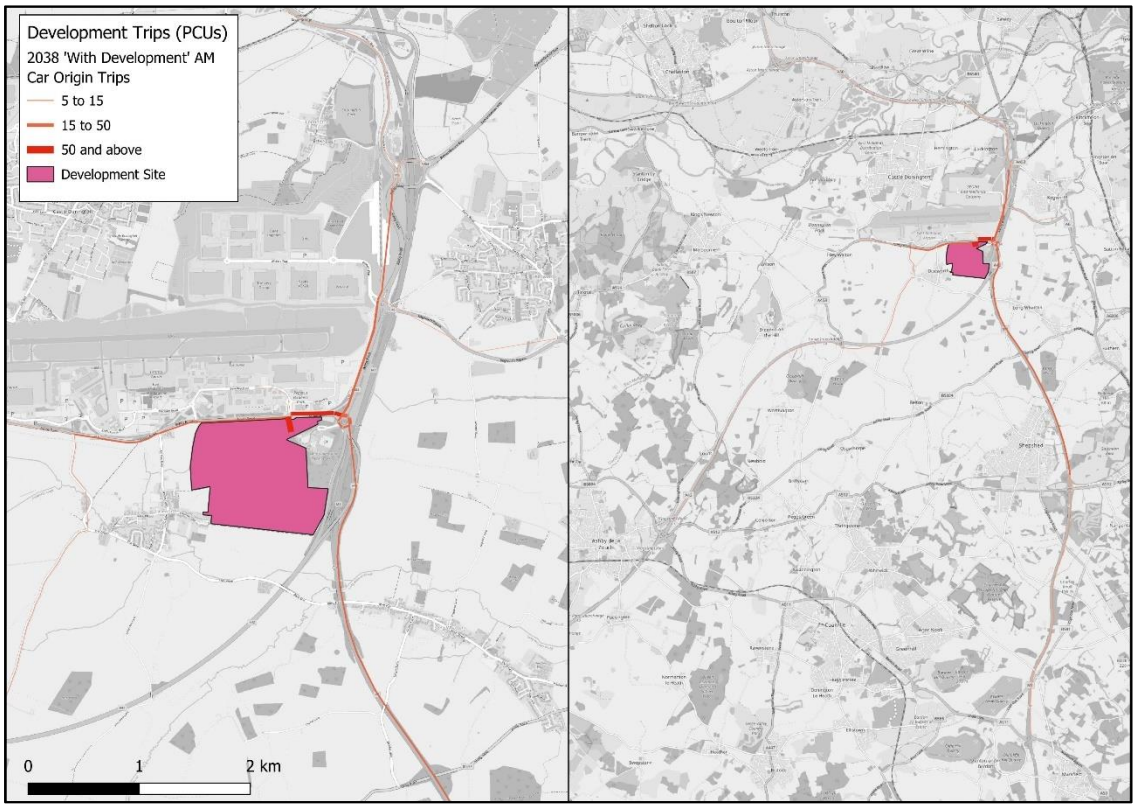
2038 'With Development (1a)' (AM), HGVs – To the Development



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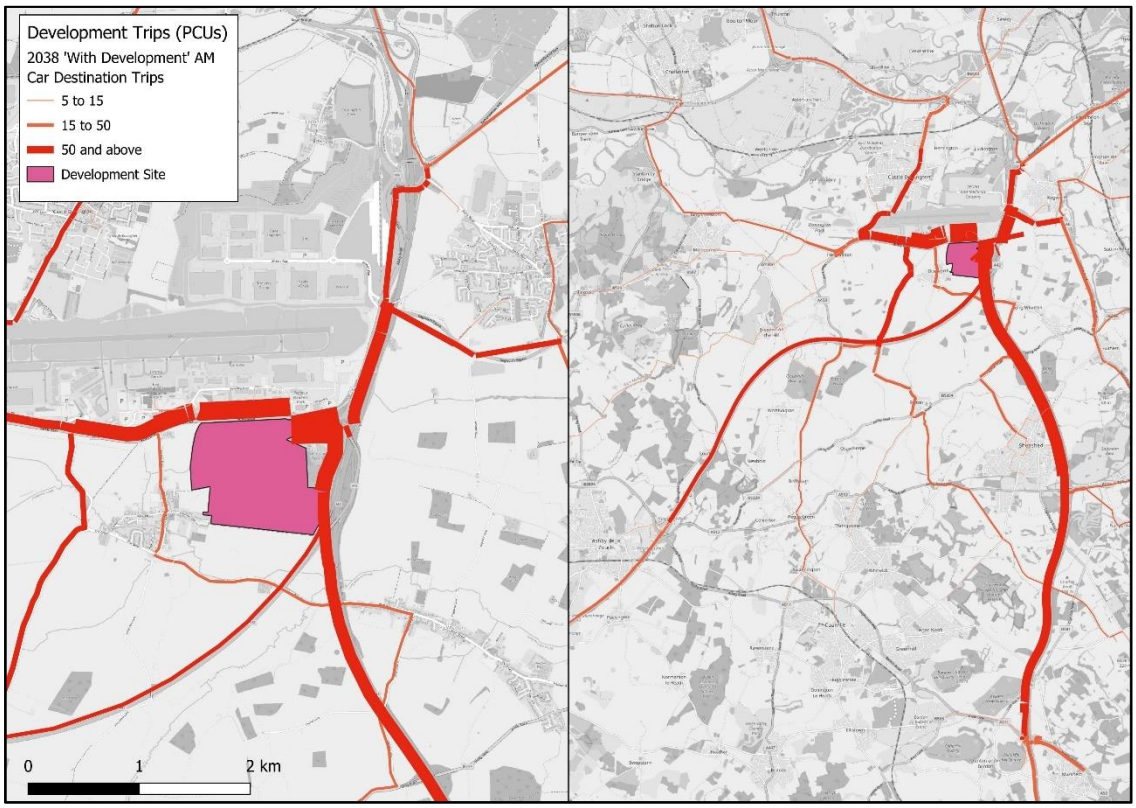
Figure 2.6: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (AM)

2038 'With Development (1a)' (AM), Light Vehicles – From the Development



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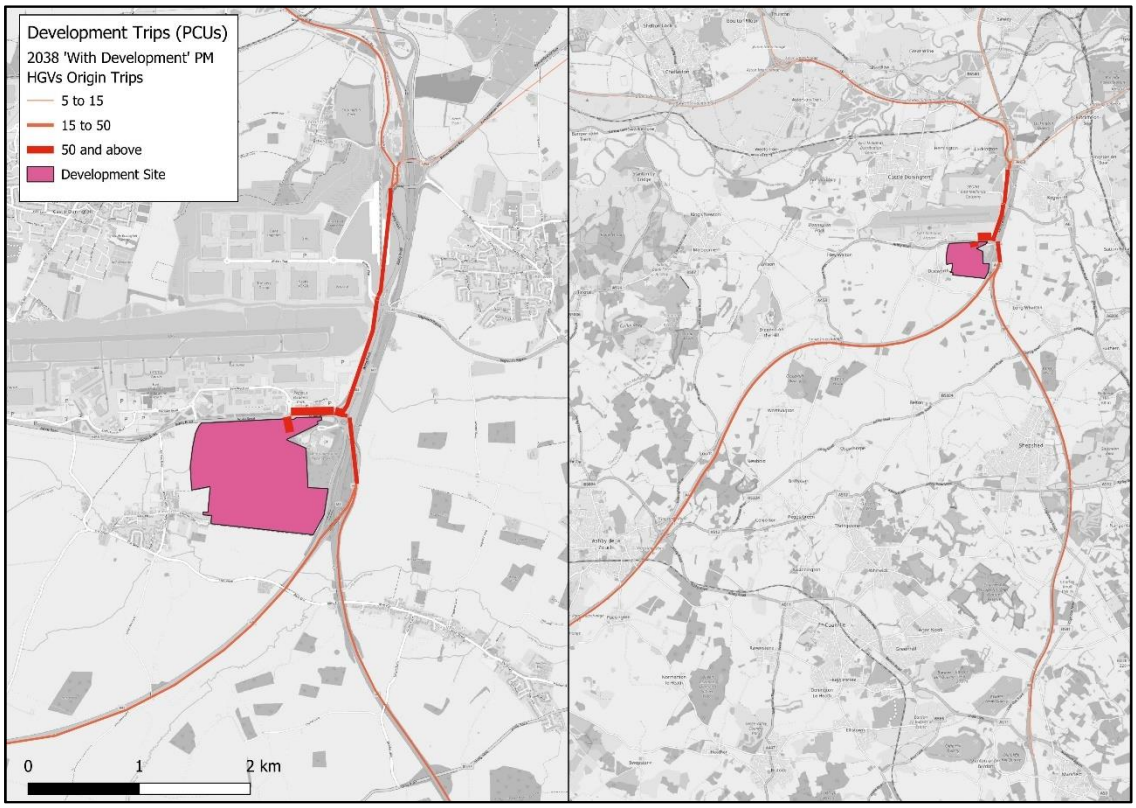
2038 'With Development (1a)' (AM), Light Vehicles – To the Development



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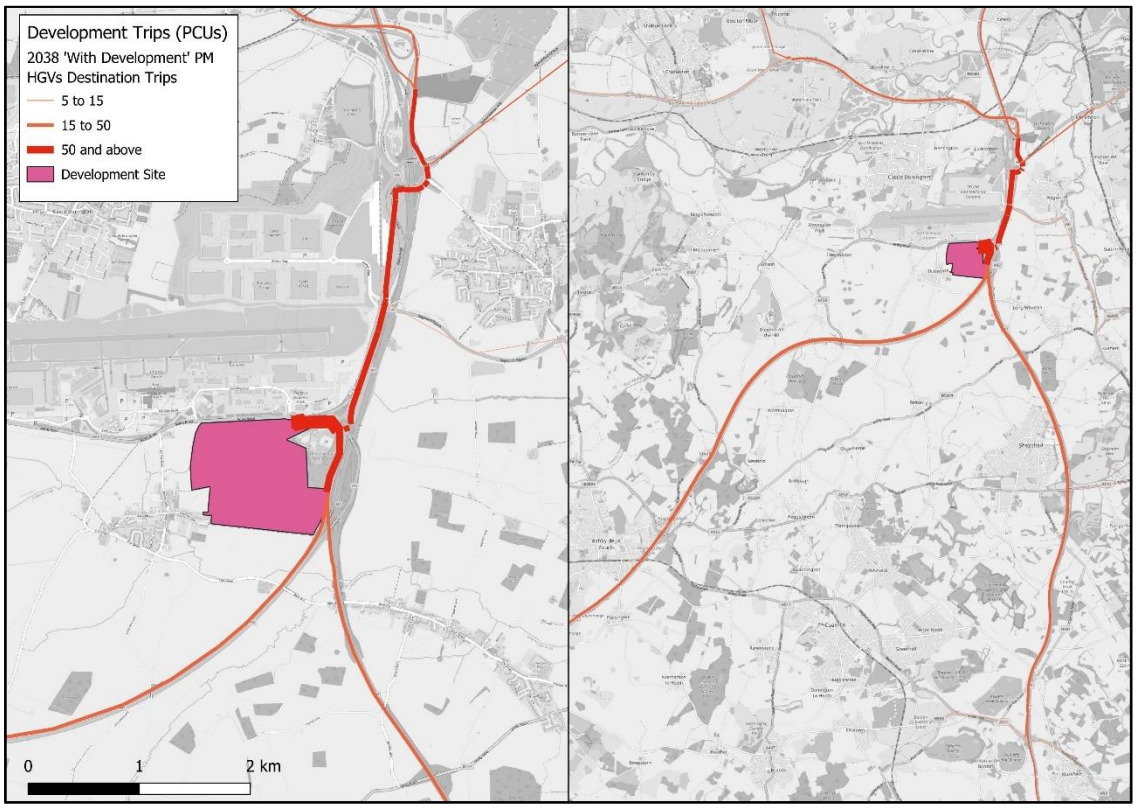
Figure 2.7: HGV Trip Distribution to and from the Proposed Development for 2038 (PM)

2038 'With Development (1a)' (PM), HGVs – From the Development



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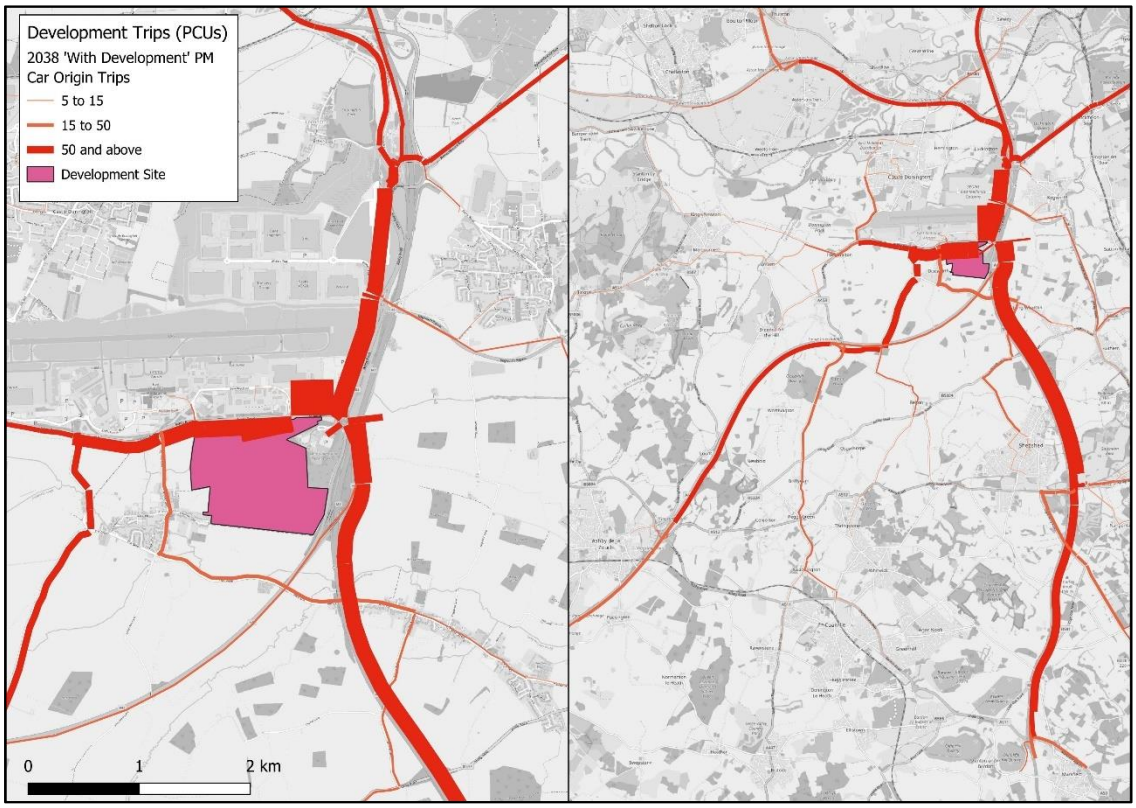
2038 'With Development (1a)' (PM), HGVs – To the Development



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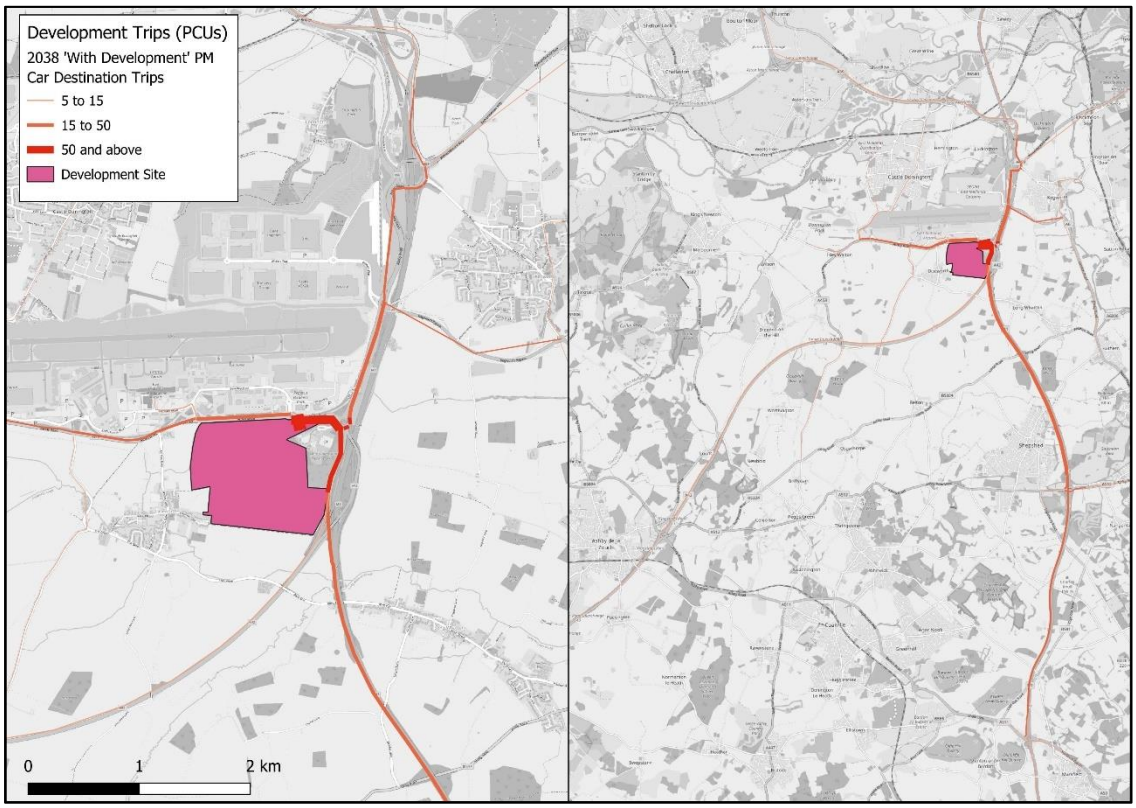
Figure 2.8: Light Vehicle Trip Distribution to and from the Proposed Development for 2038 (PM)

2038 'With Development (1a)' (PM), Light Vehicles – From the Development



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2038 'With Development (1a)' (PM), Light Vehicles – To the Development



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Section 3 – Forecast Model Results

3.1 Introduction

3.1.1 This section details the forecast model results for the proposed East Midlands Gateway Phase 2 development assessment for the AM Peak (08:00 to 09:00) and PM Peak (17:00 to 18:00) hours. The analysis includes:

- routeing of the forecast development traffic in the 2028 and 2038 'With Development (1a)' scenarios (Section 2.5 and Section 3.2);
- forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios (Section 3.3);
- an assessment of the Area of Influence (AoI) (Section 3.4);
- forecast delay changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios (Section 3.5);
- forecast maximum node volume-capacity ratios in the 2028 and 2038 'With Development (1a)' scenarios (Section 3.6); and
- forecast turning flows (and volume-capacity ratios for turns) at selected junctions (Section 3.7).

3.2 Forecast Development Traffic

3.2.1 Figure 2.1 to Figure 2.8 in Section 2.5 illustrate the assigned forecast trip distribution to and from the proposed development in 2028 and 2038 for both AM Peak and PM Peak hours. These figures show that the HGV development traffic mainly routes via the SRN including the M1, A42, A50 and the A453 Remembrance Way.

3.2.2 For light vehicle development traffic, the M1 Junction 24 area is congested and has high delays, particularly in the AM Peak hour. As such, a proportion of the light vehicle trips to the development is forecast to route via Castle Donnington Relief Road and the A6 Kegworth Bypass to avoid the M1 Junction 24 and Junction 24a area.

3.2.3 The modelling shows that the light vehicle development traffic is forecast to:

- route to and from the north via the M1 and Castle Donnington Relief Road;
- route to and from the south via the M1 and M1 Junction 23a;
- route to and from the south-west using the A42 via both Diseworth and the M1 Junction 23a;
- route to and from the west via the A50, M1 Junction 24 and through Castle Donington Relief Road; and
- route to and from the east via the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth.

3.3 Forecast Flow Change

3.3.1 Figure 3.1 and Figure 3.2 show the forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios for the AM Peak and PM Peak hours. Red bandwidth represents an increase in traffic flow in the 'With Development (1a)' scenario and green bandwidth represents a decrease.

3.3.2 As expected, the largest increases in flows are forecast along the A453 in the immediate vicinity of the proposed development. The M1 and the A42 are also forecast to experience increases in flow across all modelled forecast scenarios. There is a decrease in traffic forecast on the east side of Beverley Road, particularly for the AM Peak hour. This decrease has been caused by traffic diverting off the Beverly Road / A453 / EMG Phase 2 access roundabout in the 'With Development (1a)' scenario and on to the A453 / East Midlands Airport signal-controlled junction. A high proportion of these trips are from the south routeing via Gelscoe Lane and the A42.

3.3.3 For the local network of Castle Donington, Kegworth and Diseworth, higher flows are forecast for 'With Development (1a)' scenarios when compared with the 'Without Development (1a)' scenarios. This is particularly notable for the AM Peak hour, as a proportion of the development trips is forecast to route via the local network to access / egress from the proposed development site to avoid the congested M1 Junction 24 area.

3.3.4 As discussed in Section 3.5.4, the Derby Road / Bostocks Lane signalised junction (to the north of the M1 Junction 25) is overcapacity in the 'Without Development (1a)' scenarios and sensitive to additional demand. This sensitivity has led to large localised delay fluctuations causing some traffic to reroute in the vicinity of the Derby Road / Bostocks Lane junction. This is most notable in the 2038 AM Peak hour (as shown in Figure 3.2).

Figure 3.1: Forecast Flow Change for 2028 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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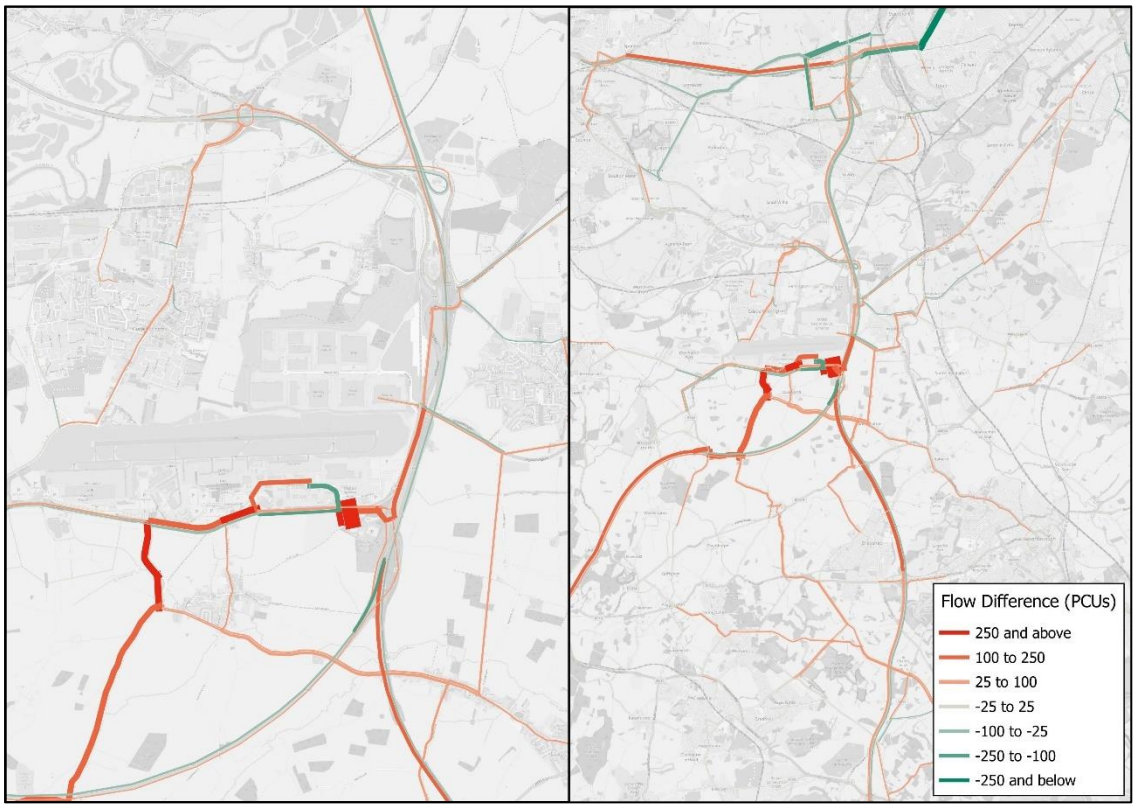
PM Peak hour



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Figure 3.2: Forecast Flow Change for 2038 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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PM Peak hour



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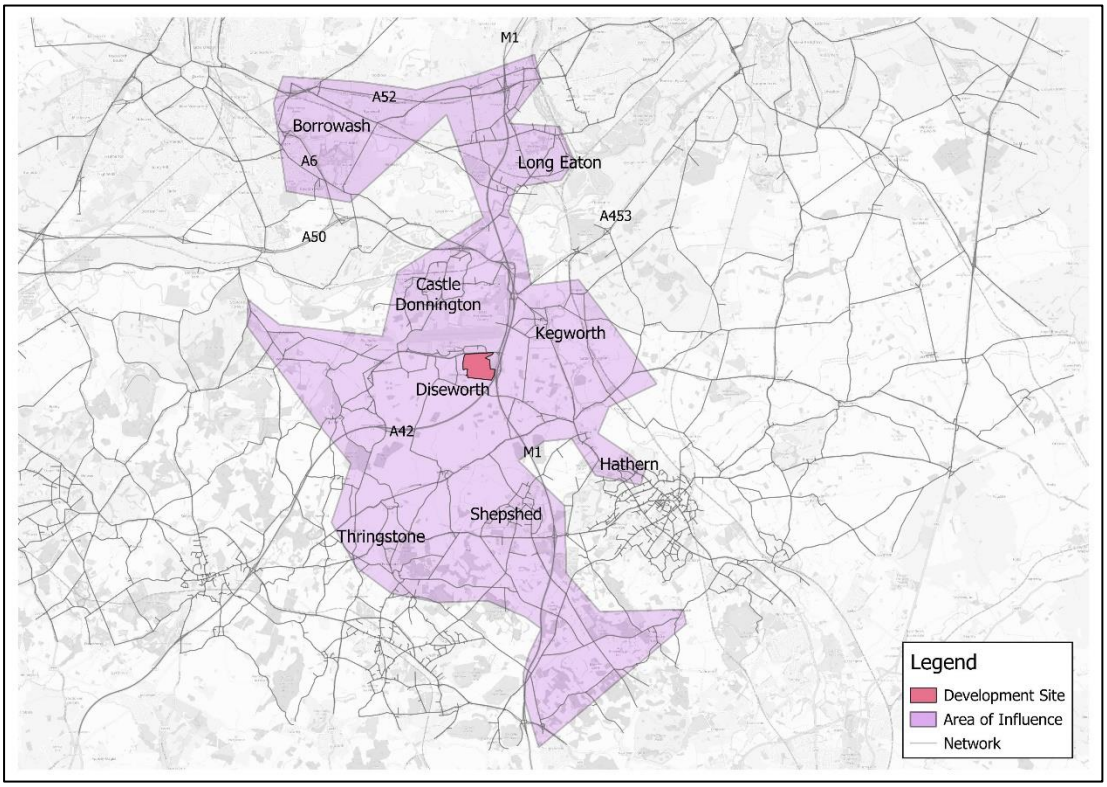
3.4 Area of Influence

3.4.1 Using the forecast flow changes between the 'With Development (1a)' and 'Without Development (1a)' scenarios, an indication of the Area of Influence (AoI) has been defined. Figure 3.3 shows the Area of Influence for the proposed development.

3.4.2 For the proposed development, the AoI has been defined by considering the links which are forecast to change flow by more than ±5% and ±30 PCUs between the 2028 and 2038 'With Development (1a)' and 'Without Development (1a)' scenarios in either the AM Peak or the PM Peak hours. The links which are forecast to meet these criteria are included in the AoI, as shown in Figure 3.3, and contains the following areas / links:

- the A453 including Finger Farm roundabout;
- the M1 between Junction 23 and Junction 24a;
- the M1 Junction 25;
- the A42 Junction 14;
- the A52 Brian Clough Way between the M1 Junction 25 and Raynesway Interchange;
- the A6 Alvaston Bypass between Raynesway Park Interchange and Thulston Roundabout; and
- local roads in and around Borrowash, Long Eaton; Castle Donnington; Kegworth; Diseworth; Hathern; Thringston and Shepshed.

Figure 3.3: Area of Influence



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3.5 Forecast Delay Change

3.5.1 As a result of forecast flow changes in the 'With development (1a)' scenario, there are also changes to the forecast delays on the highway network. These changes in delay can be generated from two sources: link delay based on the speed-flow curve applied to the link; and the junction delay due to capacity constraints for individual turning movements. The analysis in this section combines the link and junction delays (taking a flow-weighted average of junction delays) to assess the changes in forecast delays with the proposed development traffic.

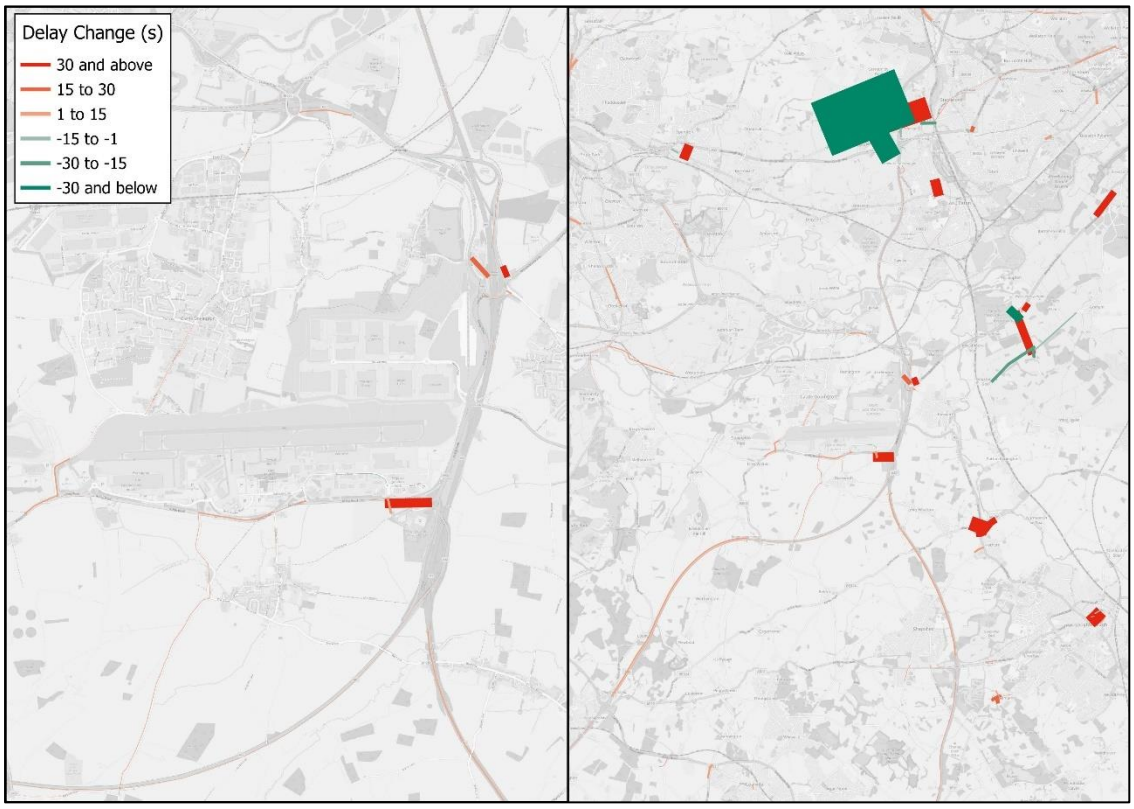
3.5.2 Figure 3.4 and Figure 3.5 show the forecast delay changes (in seconds) in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios for the AM Peak and PM Peak hours. For the A453 in the immediate vicinity of the proposed development; delays are forecast to increase by up 66 seconds to due to increases in flow from the development site.

3.5.3 Increases in delay are forecast on the approaches and circulatory lanes of M1 Junction 24 for both AM Peak and PM Peak hours for the 2038 'With Development (1a)' scenario when compared with the 2038 'Without Development (1a)' scenario. Forecast delays are also higher on the approach to Finger Farm Roundabout from the A453 and southbound from Castle Donnington towards the A453 / Walton Hill signalised junction.

3.5.4 As noted in Paragraph 3.3.4, the Derby Road / Bostocks Lane signalised junction (to the north of M1 Junction 25) is forecast to be overcapacity in the 'Without Development (1a)' scenarios. This junction is therefore sensitive to additional demand leading to large delay fluctuations in the vicinity of the junction. As shown in Figure 3.4 and Figure 3.5, this is most notable in the 2028 and 2038 AM Peak hours. These fluctuations in delay are attributed to the sensitivity of this junction in and around the Derby Road / Bostocks Lane junction.

Figure 3.4: Forecast Delay Change for 2028 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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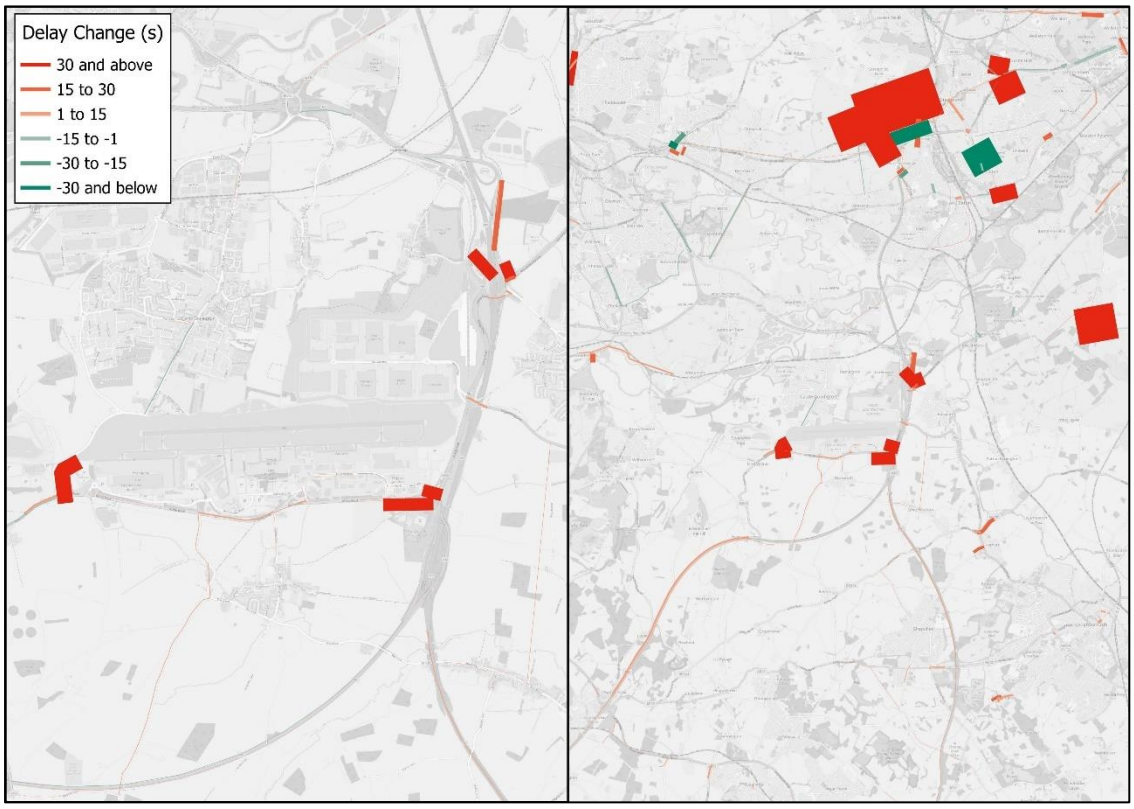
PM Peak hour



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Figure 3.5: Forecast Delay Change for 2038 'With Development (1a)' minus 'Without Development (1a)'

AM Peak hour



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PM Peak hour



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3.6 Forecast Node Volume-Capacity Ratios

3.6.1 As a part of the forecast modelling, node / junction capacities are estimated for individual turning movements based on a number of factors including priority of the turn (for example, give-way or merge), the level of green-time at signalised junctions, and the amount of opposing traffic at the junction. Using these calculated capacities and the forecast traffic volumes, node volume-capacity ratios are estimated to identify locations where the forecast flows are approaching or exceeding the forecast capacity.

3.6.2 To summarise the forecast-capacity ratios for the individual turning movements at a node, there are two approaches. These are to calculate the flow-weighted average volume-capacity of the node, or to calculate the maximum volume-capacity ratio for all turns within a node. The average volume-capacity ratio provides an overview of how the individual node is performing but may not highlight locations where a limited number of movements at a node are approaching or exceeding capacity. To highlight these locations, the maximum volume-capacity ratio at each node has been used. Node volume-capacity ratios exceeding 85% indicate that the highway network is under stress, and there is likely to be a reduction in speed and increase in delay.

3.6.3 Figure 3.6 and Figure 3.7 show the forecast maximum junction volume-capacity ratios for 2028 and 2038, 'With Development (1a)' and 'Without Development (1a)' scenarios. For ease of comparison, the symbology has been designed to show the data for 'Without Development (1a)' and 'With Development (1a)' scenarios on the same plot.

3.6.4 The reader should note that Figure 3.6 and Figure 3.7 show a subset of all nodes within the EMFM to reduce the number of data points within the plots. Nodes which do not fall within the AoI, as defined in Figure 3.3, are not shown. Nodes with maximum volume-capacity ratios below 85% in all forecast scenarios are not shown, except for the node which is located at the proposed site access on the A453.

3.6.5 The forecast maximum node volume-capacity ratio plots show that the A453 / Beverly Road / EMG Phase 2 access roundabout junction, the signalised junction with the A453 / East Midlands Airport signalised junction and M1 Junction 24 are most affected by the proposed development. For 2028 and 2038, the proposed development increased the node volume-capacity ratios at these junctions.

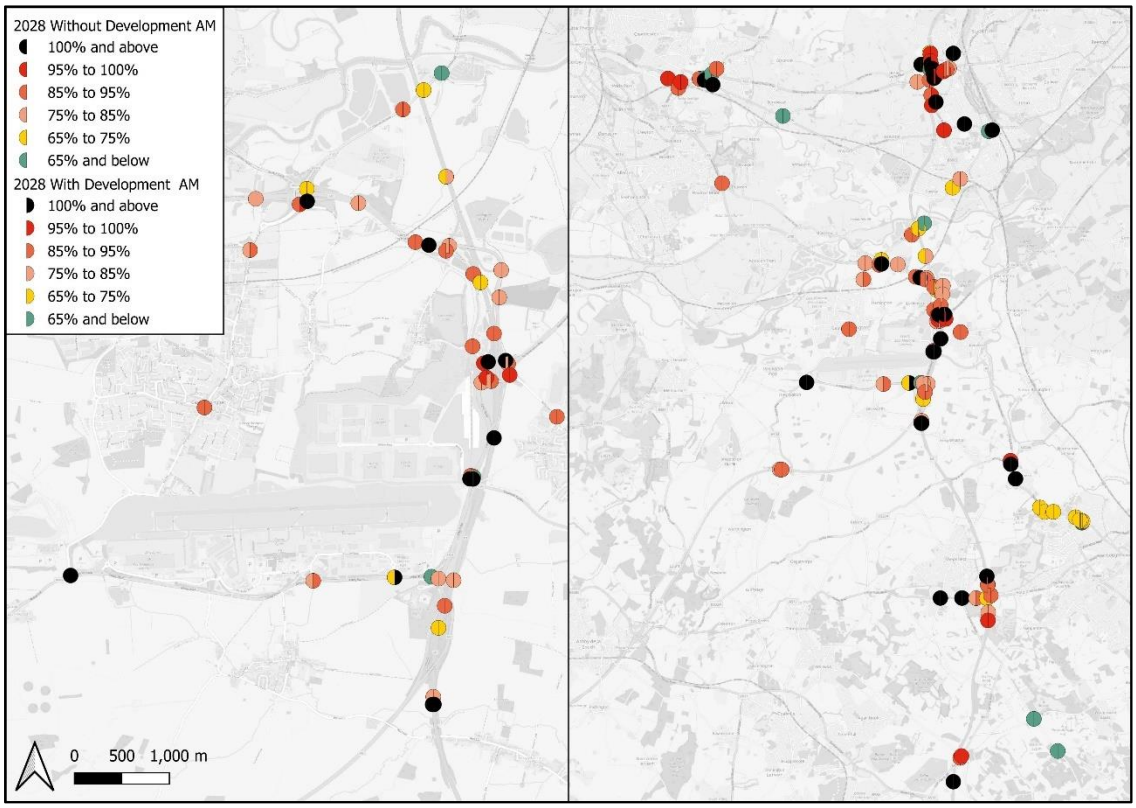
3.6.6 For M1 Junction 24, the node volume-capacity ratios are high for the 'Without Development (1a)' scenarios, with multiple nodes at this junction exceeding 85%. For the 'With Development (1a)' scenarios, the node volume-capacity ratios remain high, exceeding 85%, showing that the M1 Junction 24 is forecast to have high delays.

3.6.7 In the AM Peak hour, the node volume-capacity ratios for the A453 / Beverly Road / EMG Phase 2 access roundabout junction is forecast to be greater than the PM Peak hour in both the 2028 and 2038 forecast year scenarios, consistent with the forecast delay shown in Figure 3.4 and Figure 3.5.

3.6.8 Comparing the forecast results between 2028 and 2038, the node volume-capacity ratios are forecast to be greater for the later forecast year (i.e. 2038) as forecast flows increase (when compared with 2028).

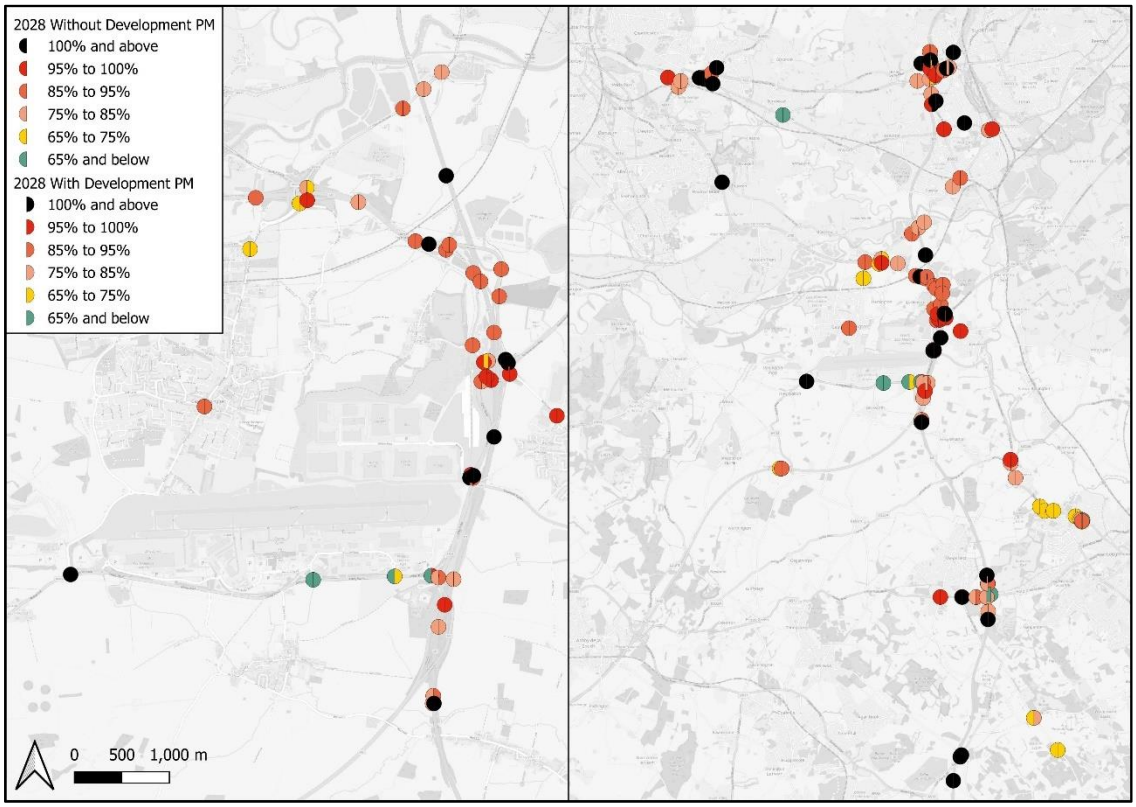
Figure 3.6: Forecast Node Volume-Capacity Ratio for 2028 'Without Development (1a)' and the 2028 'With Development (1a)' Scenarios

AM Peak hour



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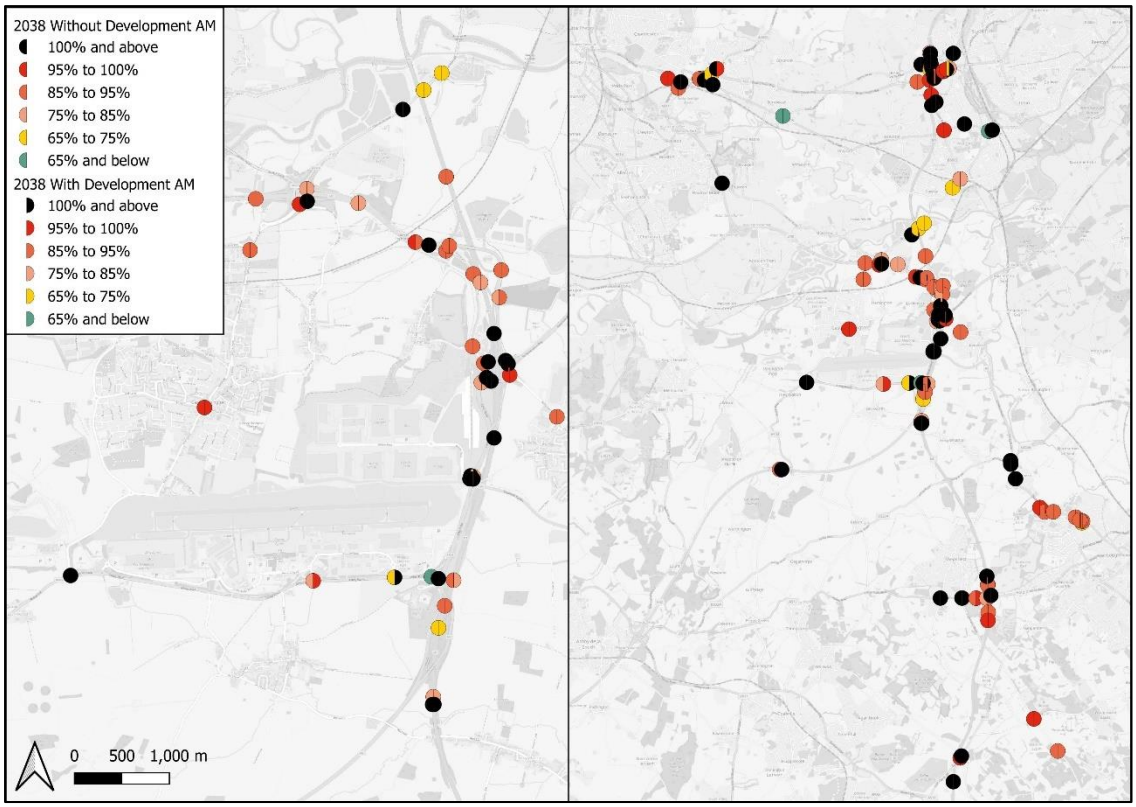
PM Peak hour



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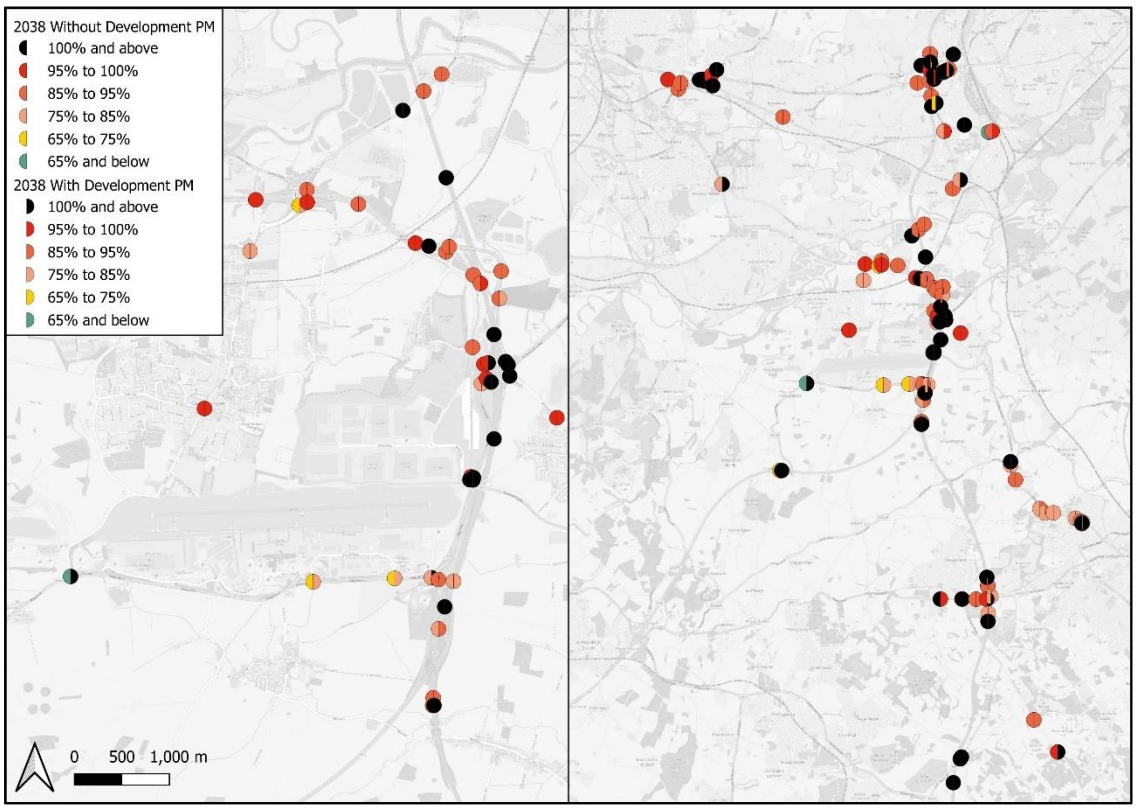
Figure 3.7: Forecast Node Volume-Capacity Ratio for 2038 'Without Development (1a)' and the 2038 'With Development (1a)' Scenarios

AM Peak hour



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PM Peak hour



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3.7 Forecast Junction Turning Flows

3.7.1 Forecast turning flows have been extracted for the following 16 junctions (also shown in Figure 3.8) in the vicinity of the proposed development:

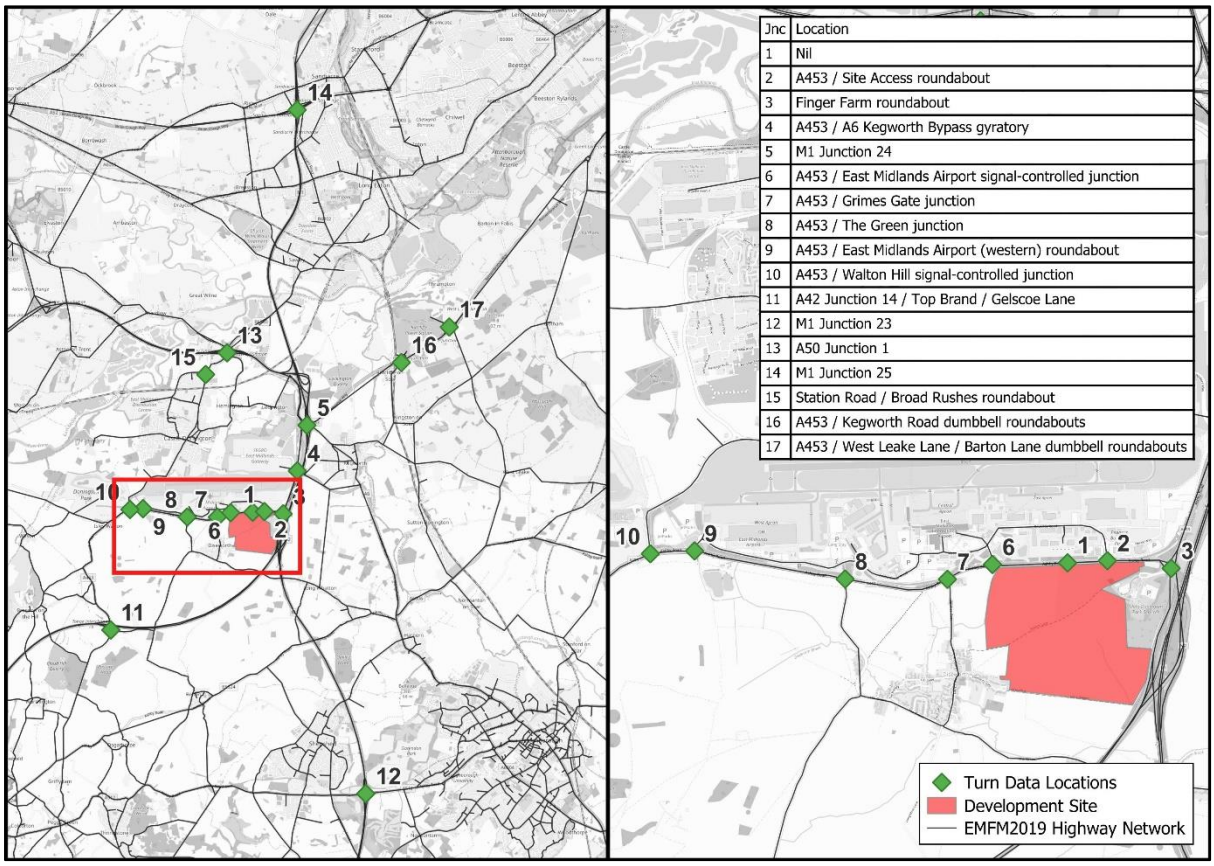
- A453 /Site access Roundabout (Junction 2);
- Finger Farm roundabout (Junction 3);
- A453 / A6 Kegworth Bypass gyratory (Junction 4);
- M1 Junction 24 (Junction 5);
- A453 / East Midlands Airport signal-controlled junction (Junction 6);
- A453 / Grimes Gate junction (Junction 7);
- A453 / The Green junction (Junction 8);
- A453 / East Midlands Airport (western) roundabout (Junction 9);
- A453 / Walton Hill signal-controlled junction (Junction 10);
- A42 Junction 14 / Top Brand / Gelscoe Lane (Junction 11);
- M1 Junction 23 (Junction 12);
- A50 Junction 1 (Junction 13);
- M1 Junction 25 (Junction 14);
- Station Road / Broad Rushes roundabout (Junction 15);
- A453 / Kegworth Road dumbbell roundabouts (Junction 16); and
- A453 / West Leake Lane / Barton Lane dumbbell roundabouts (Junction 17).

3.7.2 The data have been provided separately in MS Excel spreadsheet format[10] which contains the forecast turning flows for the AM Peak and PM Peak hours for light and heavy vehicles. Data are provided for the 2022, 2023, 2024, 2028 and 2038 'Without Development (1a)' and the 2028 and 2038 'With Development (1a)' scenarios. In addition to the turning flows, turn volume-capacity ratios have also been provided where available.

3.7.3 By design the EMFM highway model has not been calibrated or validated for individual turning movements, so care should be taken when using forecasts of flows and volume-capacity ratios at this level.

[10] EMGP2 - Junction Turning Flows_v1.0 - For Issue.xlsx (provided via email on 23rd Jan 2025)

Figure 3.8: Location of Forecast Turning Flow Data



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Section 4 – Summary of the EMFM Assessment

4.1 Summary of Assessment

4.1.1 Using the East Midlands Freeport Model (EMFM), forecasts have been undertaken to produce the 2028 and 2038 'Without Development (1a)' and 'With Development (1a)' scenarios for both the AM Peak and PM Peak hours for the strategic assessment of the proposed East Midlands Gateway Phase 2 development.

4.1.2 Based on these model forecasts, the following is a summary of the key findings for the assessment of the proposed development.

- Development trips (HGVs) have been forecast to route via the following roads:
  - the M1 to and from the south and north;
  - the A42 to and from the south-west;
  - the A50 to and from the west; and
  - the A453 Remembrance Way to and from the east.
- Development trips (light vehicles) have been forecast to route via the following roads:
  - the M1 to and from the south and north;
  - the A42, the A42 Junction 14, A453 and Gelscoe Lane from the south-west;
  - the A50 and through the local network of Castle Donington to and from the west; and
  - the A453 Remembrance Way, A6 Kegworth Bypass and through the local network of Kegworth and Diseworth to and from the east.
- The forecast flow changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios show that the largest increases in flows are, as expected, forecast along the A453. The M1 and A42 are also forecast to experience increases in flows as well as the local network of Castle Donington, Kegworth and Diseworth.
- An Area of Influence (AoI) for the proposed development has been defined by identifying links which are forecast to change by more than ±5% and ±30 PCUs between the 'With Development (1a)' and 'Without Development (1a)' scenarios for 2028 and 2038 in either the AM Peak or PM Peak hours. The forecast AoI includes:
  - the A453 including Finger Farm roundabout;
  - the M1 between Junction 23 and Junction 24a;
  - the M1 Junction 25;
  - the A42 Junction 14;
  - the A52 Brian Clough Way between M1 Junction 25 and Raynesway Interchange;
  - the A6 Alvaston Bypass between Raynesway Park Interchange and Thulston Roundabout; and
  - local roads in /around Borrowash, Long Eaton, Castle Donnington, Kegworth, Diseworth, Hathern, Thringston and Shepshed.
- The forecast delay changes in 2028 and 2038 between the 'With Development (1a)' and 'Without Development (1a)' scenarios show the proposed development is forecast to increase the delays on the A453 and the approaches of the M1 Junction 24.
- The forecast maximum node volume-capacity ratios show that the proposed development is forecast to increase pressure for the junctions along the A453 including the Finger Farm roundabout. For the M1 Junction 24, the node volume-capacity ratios are high for both the 'Without Development (1a)' and 'With Development (1a)' scenarios with multiple nodes at this junction exceeding 85% which shows high delays and congestion at this location.

4.1.3 The forecasts undertaken reflect the forecast impact of the proposed development at East Midlands Gateway Phase 2. It should be noted that the results provided in this report are at a high level. Due to the strategic nature of the EMFM, not all roads are modelled, and the results should be interpreted with that in mind.

4.1.4 Although the EMFM modelling provides the strategic impact and form part of the proposed East Midlands Gateway Phase 2 assessment evidence packs, the overall assessment should be complemented by local operational assessment and analysis.

Appendix A Planning Data Assumptions

Table A.1: Residential Development Assumptions (sites with more than 500 dwellings) (North West Leicestershire)

District	Location	Quantum	Timescale	Include
North West Leicestershire	Money Hill North of Nottingham Road	1,953	2021-2037	Y
North West Leicestershire	Land North and South of Park Lane	657	2021-2027	Y
North West Leicestershire	Land off Grange Road (South East Coalville)	3,433	2021-2035	Y
North West Leicestershire	Land at Measham Waterside Burton Road	585	2027-2041	Y
North West Leicestershire	Land North and South of Park Lane, Castle Donington (CD10)	1,076	2027-2036	N
North West Leicestershire	Isley Woodhouse (IW1)	4,500	2029-2050	N

Table A.2: Employment Development Assumptions (sites with more than 750 jobs) (North West Leicestershire and East Midlands Freeport sites)

For information, the following table shows the employment sites with more than 750 jobs within North West Leicestershire as well as the sites associated with the East Midlands Freeport development in South Derbyshire.

District	Location	Quantum	Timescale	Include
North West Leicestershire	Mercia Park	393,100 sqm (floorspace)	2023-2027	Y
North West Leicestershire	Strategic Rail Freight Interchange on Land North of East Midlands Airport/West of M1 Junction 24	499,630 sqm (floorspace)	2020-2025	Y
North West Leicestershire	Money Hill	15.9 ha (Site Area)	2027-2031	Y
North West Leicestershire	Segro East Midlands Gateway Phase 2	400,000 sqm (floorspace)	2028-2031	N
North West Leicestershire	Land South of Junction 1 of the A50 Castle Donington Leicestershire	92,500 sqm (floorspace)	2026-2029	Y
North West Leicestershire*	East Midlands Airport Aviation Expansion	940 Jobs	2026-2028	Y
North West Leicestershire	Land West of Hilltop Farm, Castle Donington (Emp89)	17,850 sqm (floorspace)	2025-2034	N
North West Leicestershire	Land North of Remembrance Way (A453), Kegworth (Emp73 (Part))	40,000 sqm (floorspace)	2025-2034	N
South Derbyshire*	EMIP Masterplan 1	4,440 Jobs	2026-2030	Y
South Derbyshire*	EMIP Masterplan 2	3,540 Jobs	2026-2030	Y
South Derbyshire*	EMIP Masterplan 3	1,620 Jobs	2026-2030	Y

* East Midlands Freeport development sites

Appendix B Network Assumptions

Table B.1: Highway Network Assumptions

Location	Scheme Name	Forecast Year	Include
Earl Shilton	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Barwell	Access arrangements for SUE / Highway improvements for SUE	2026	Y
Lubbesthorpe	Access arrangements for SUE including strategic traffic link to the A563 Lubbesthorpe Way	2021	Y
Loughborough	A512 widening B591 to M1 J23, improvements to J23 and completion of dualling thereafter to either Snell's Nook Lane or Epinal Way junction	2021	Y
Coalville	4. Bardon Road Link: Southern section only	2026	Y
Castle Donington	Western Link Road from Back Lane to Tops Hill, NWLDC package of measures to help mitigate growth planned	2021	Y
Lubbesthorpe	Link across M69 to join North and South of the Lubbesthorpe development.	2031	Y
Earl Shilton & Barwell	Highway improvements for SUE	2026	Y
Lubbesthorpe	Highway improvements for SUE	2026	Y
Loughborough	West of Loughborough SUE (access from the north via the A6 roundabout)	2022	Y
Blaby	Desford Crossroads	2026	N
Harborough	Harborough Strategic Development Area	2021	Y
Charnwood	North of Birstall SUE	2026	Y
Charnwood	Mountsorrel Lane, Rothley Link Road	2021	Y
Charnwood	A512 junction improvements	2021	Y
North of East Leicester	North of East Leicester Development Network - Thorpebury (previously Thurmaston) SUE.	2026	Y
Leicester City	Traffic Calming Schemes (Phase 2)	2021	Y
Leicester City	Welford Road	2021	Y
Leicester City	Waterside Development	2026	Y
Leicester City	Belgrave Gate South	2020	Y
Leicester City	Lancaster Road	2020	Y
Leicester City	Mansfield Street & Church Gate	2021	Y
Leicester City	SMBS Access to Burleys Way	2021	Y
Leicester City	Vaughan Way	2020	Y
Leicester City	Ashton Green	2021	Y
Leicester City	LNW2 Ravensbridge Drive / Blackbird Road	2020	Y
Melton	MMDR Northern Section	2026	Y
Melton	MMDR Eastern Section	2026	Y
Melton	MMDR Southern Section	2026	Y
Melton	Gladman's Site (Leicester Road and Kirby Lane Access)	2021	Y

Location	Scheme Name	Forecast Year	Include
Leicester City	Beaumont Leys Anstey Lane Improvements	2021	Y
Hinckley	Hinckley Rugby Road Corridor Improvements - Phase 4	2023	Y
Leicester City	Putney Road West Improvement	2022	Y
Lutterworth	Frank Whittle Roundabout approaches	2021	Y
Lutterworth	Lutterworth East Development (Development Access (A4304, Gilmorton Road and A426))	2026	Y
Lutterworth	Lutterworth East Development associated mitigations	2031	Y
Lutterworth	Lutterworth East Development (Link Road between A4304 and A426)	2031	Y
Lutterworth	Lutterworth East Development (Gilmorton Road bridge bus restriction)	2026	Y
Bardon Hill	Bardon Hill Link Road North Section	2026	Y
Coalville	Hoo Ash Roundabout	2025	Y
Coalville	Thornborough Road Roundabout	2025	Y
Coalville	Dual Carriageway from Thornborough Rd to Whitwick Road	2025	Y
Coalville	Whitwick Road Roundabout	2025	Y
Coalville	Broom Leys Road Junction	2025	Y
Coalville	Bardon Link Road Junction	2025	Y
Coalville	Birch Tree Roundabout	2025	Y
Coalville	Flying Horse Roundabout	2025	Y
Coalville	Fieldhead Roundabout	2025	Y
Hinckley	DPD A5 Access	2021	Y
Padge Hall	Padge Hall Development Access	2024	Y
Leicester City	Abbey Park Road Cycle Provision	2021	Y
Blaby	A47 / Kirby Lane Tesco Express	2021	Y
Leicester City	Abbey Street	2021	Y
Leicester City	A50 Groby Road Bus Lane	2022	Y
Harborough	Magna Park Extension Access - Mere Lane, Lutterworth	2021	Y
Harborough	Magna Park Extension Access - A5, Lutterworth	2026	Y
Blaby	Highway improvements for Lubbesthorpe SUE	2021	Y
Blaby	Foxhunter Roundabout Eastbound Approach	2021	Y
Loughborough	West of Loughborough SUE (connection to the northern arm of the A512 roundabout)	2036	Y
Harborough	B4114 / B581 Signalisation Improvement, Broughton Astley	2026	Y
Blaby	Blaby DPD Site Access	2026	Y
Blaby	West of St Johns (Blaby DPD) Site Access	2026	Y
Harborough	Wigston Direction for Growth Site Access	2026	Y
Blaby	Everard Way Closure, Fosse Park	2020	Y
Loughborough	Access connection for the Science Park via the A512 roundabout	2031	Y

Location	Scheme Name	Forecast Year	Include
North West Leicestershire	Money Hill Site Access A511	2026	Y
Derbyshire	Wragley Way (South Derbyshire) SUE Access A50	2031	Y
Derbyshire	Clifton (Rushcliffe) SUE Access	2022	Y
Derbyshire	EMIP A50 (Freeport)	2030	Y
Derbyshire	Toton Innovation Hub (HS2)	2026	Y
Nottinghamshire	Ratcliffe Power Station A453 (Freeport)	2030	Y
Rugby	Rugby Radio Station - A5 Access	2022	Y
North West Leicestershire	Mercia Park	2020	Y
Leicester City	Western Park Golf Course	2029	Y
Harborough	Kettering Road Signalisation	2021	Y
Charnwood	Shuttle signals on Tickow Lane (over bridge)	2022	Y
Charnwood	Buttercup Lane in Shepshed	2022	Y
Blaby	Dans Lane (A47)	2023	Y
Hinckley	B582 / B585 signalisation	2023	Y
Hinckley	A47 roundabout between Wykin Road and Outlands Drive	2021	Y
M6 Junction 10-13	M54-Stafford ALR	2021	Y
M54-M6 Toll	New Link Road min 2 lane motorway	2024	Y
M6 J13-J16	Stafford South to Stoke ALR	2022	Y
M1 J13-16	MK South - J16 ALR	2022	Y
M40 M42	M40 J16-M42 J3 ALR	2026	Y
A46 Coventry	Remove Binley and Walsgrove roundabouts M40-M6 as 'expressway standard' (i.e. all grade separated junctions)	2026	Y
A46 Toll Bar End	Grade separated junction at TBE & Stonebridge Highway to 3 lanes	2021	Y
Newark North	Dualling Newark N bypass first stages now in RIS 2	2031	Y
Newark South	A1-A46 link S of Newark; part constructed. Not in MRTM list	2031	Y
Lincoln East	A15-A158; under construction	2021	Y
Lincoln South	A158-A46; *sketchy details*; envisaged as dual carriageway… Assumed costing will be similar to Lincoln E bypass and will be 60mph single	2031	Y
Grantham South	A1-A52 link bypassing Grantham; under construction	2023	Y
Warwickshire	M6 J2 - J4 SMART motorway	2021	Y
Nuneaton and Bedworth Borough	Coton Arches	2021	Y
Nuneaton and Bedworth Borough	A4254b Eastboro Way Phase 1	2024	Y
Nuneaton and Bedworth Borough	College Street / A444	2026	Y

Location	Scheme Name	Forecast Year	Include
Nuneaton and Bedworth Borough	Transforming Nuneaton	2026	Y
Nuneaton and Bedworth Borough	Croft Road / Greenmoor Road Priority	2031	Y
Nuneaton and Bedworth Borough	A47 Old Hinckley Road	2024	Y
Nuneaton and Bedworth Borough	Coventry Road / Gipsy Lane	2026	Y
Nuneaton and Bedworth Borough	A4254 / B4114 / Eastboro Way	2026	Y
Nuneaton and Bedworth Borough	Nuneaton Northern Sites Link Road	2026	Y
North Warwickshire	B5000 Market Street/Bridge Street Signals	2026	Y
North Warwickshire	A5 Dualling between Grendon and Dordon Junction	2033	Y
Rugby Borough	A426/A4071 Avon Mill Roundabout/Newbold Road/Hunters Lane Priority Junction	2026	Y
Rugby Borough	Ashlawn Road/Hillmorton Road	2021	Y
Rugby Borough	A5 Northern Access to DIRFT III	2021	Y
Rugby Borough	A5/A428 Halfway House Roundabout	2026	Y
Rugby Borough	M1 Junction 18	2031	Y
Rugby Borough	M6 to Coton House	2021	Y
Rugby Borough	A5 Southern Access to DIRFT III	2021	Y
North Warwickshire	A5 dualling Grendon to Atherstone	2031	Y
Rugby Borough	M6 J2 Signalisation	2024	Y
Nuneaton and Bedworth Borough	Callendar Farm Phase 2	2031	Y
Nuneaton and Bedworth Borough	Bermuda Triangle Project	2026	Y
Rugby Borough	Ansty Park Access (Combe Fields Road)	2020	Y
Castle Donington	Land South of A50 J1 Development Access	2024	Y
Hinckley	B4114 Coventry Rd / Broughton Rd widening	2021	Y
Shepshed	A512 Ashby Rd Quarry access/signalised junction	2021	Y
Bardon	Tungsten Park, Bardon A511	2021	Y
North West Leicestershire	Segro EMG Phase 2 Development Access	2028	N
Leicester City	St George Street (Queen Street to Southampton Street)	2022	Y
Leicester City	Dover Street (Granby Street Junction)	2024	Y
Leicester City	Granby Street (Bishop Street to Halford Street)	2024	Y
Leicester City	Granby Street (Northampton Street to Street George's Way)	2022	Y
Leicester City	Pocklingtons Walk	2022	Y

Location	Scheme Name	Forecast Year	Include
Leicester City	Aylestone Road, Saffron Lane to Oxford Street (A426)	2023	Y
Leicester City	Saffron Lane (B5366)	2023	Y
Leicester City	Duns Lane/Braunstone Gate	2023	Y
Leicester City	Abbey Park Road (Eastern section and bridge)	2023	Y
Leicester City	Anstey Lane (A5630)	2022	Y
Leicester City	St. Margaret's to Birstall (A6)	2024	Y
Leicester City	Melton Road (A607)	2023	Y
Leicester City	Belgrave Gate/Haymarket/Church Gate Pedestrianisation	2020	Y
North West Leicestershire	A50 Junction 1 signalisation of two additional arms (Tamworth Road and Trent Lane)	2025	Y
Blaby	Desford Road/Ratby Lane signalisation	2022	Y
Nottinghamshire	A52 Gamston roundabout	2023	Y
Nottinghamshire	A52 Wheatcroft junction	2028	Y
Nottinghamshire	A52 Nottingham Knight junction	2028	Y
Derbyshire	A38 grade-separated junctions (Kingsway Roundabout, Markeaton Island and Little Eaton Roundabout)	2024	Y
Broxtowe	Toton Link Road	2026	N

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APPENDIX 10: EMG2 Rail Freight Terminal Note (document reference EMG2-BWB-GEN-XX-RP-CH-0011_S2-P01)

Project	**East Midlands Gateway 2 (EMG2)**		
Document Number	EMG2-BWB-GEN-XX-RP-CH-0011	**BWB Ref**	220500
Author	Simon Hilditch	**Status**	S2
Checked	Matt Corner	**Revision**	P01
Approved	Paul Wilson	**Date**	15.10.2024

1 INTRODUCTION

1.1 East Midlands Gateway 1 (EMG1) provided an intermodal rail terminal to serve the East Midlands. As part of the East Midlands Gateway 2 (EMG2) proposals an amendment is proposed to the EMG1 consented terminal.

1.2 The purpose of this note is to explain the consented terminal for EMG1, the proposed amendments for EMG2 and confirm that this does not impact the consented traffic envelope for EMG1.

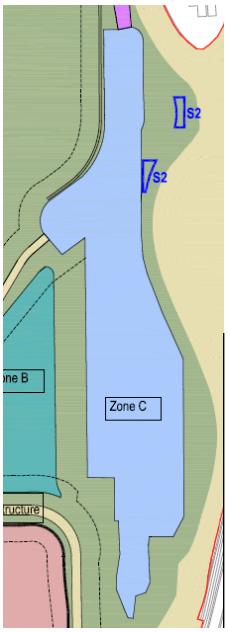
2 EMG1 CONSENTED TERMINAL

2.1 The EMG1 terminal, as consented as part of the EMG1 development consent order (DCO), has the capacity to accommodate up to 16 trains per day (16 arrivals and 16 departures). It has four loading/unloading sidings, which are 775 metres long to accommodate the largest planned intermodal trains.

2.2 The (road) traffic envelope for the EMG1 terminal was determined, agreed and consented on the above basis.

2.3 Considerable space is provided within the rail terminal for the storage of containers. As part of the original EMG1 consent, the containers were permitted to be a maximum of 10m high stacks, which allowed for three high-cube (2.9m high) containers.

2.4 **Figure 1** below shows an extract of the Parameters Plan which is part of the EMG1 DCO.



SCHEDULE OF PARAMETERS

Zone	Number of Units	Maximum Development floorspace Per Zone in m²	Maximum Plateau level (in m Above Ordnance Datum)	Building Height Range measured to roof ridge / highest point
Zone B	1 to 2	938	58.40	Building 10.0m
				Container Storage max height 10.0m
Zone C	2 to 4	1,000	43.90	Building 10.0m
				Container Storage max height 10.0m
				Gantry Cranes 20.0 m max. ht

Figure 1: EMG1 parameters plan extract for the rail terminal

2.5 More recently, separate planning consents under the Town and Country Planning Act have been approved to allow the majority of the terminal to have 15m high container stacks which allow for five high-cube (2.9m high) containers to be stacked. This has significantly increased the storage capacity of the terminal. However, this has not affected throughput of the terminal which is driven by the number of trains arriving and departing, which remains at a maximum of 16 trains per day.

3 OPERATIONAL EFFICIENCY

3.1 At the time of writing, the terminal has around six trains per day (six arrivals and six departures). The terminal is operated by reach stackers, which are large vehicles that pick up containers and move them around the terminal, stack the containers and load & unload the trains.

3.2 When the terminal has more trains in the future, the most efficient operation of moving containers on and off the trains is to use cranes. The maximum crane height within the consented scheme for EMG1 is 20m as shown on **Figure 1** above as this was based on the container stack height of 10m.

4 EMG2 AMENDMENT

4.1 The proposed amendment for EMG2 is to increase the maximum crane height to around 24m which will then permit the stacking of containers to 15m.

4.2 Whilst this may have environmental impacts that will be assessed as part of the Environmental Assessment for EMG2, this will not increase the number of trains serving the terminal beyond the 16 assessed for the consented EMG1 scheme and as such there will be no impact on the (road) traffic generated by the terminal.

4.3 Consequently, the trip generation details set out within PRTM proforma v14 (dated 10 October 2024) remain suitable and robust to test the impacts of the EMG2 development, without the need for further consideration of the proposed changes at the EMG1 rail terminal.

APPENDIX 11: Trip Generation Core Assessment (document reference EMG2-BWB-GEN-XX-RP-TR-0012_S2-P1)

PROJECT NAME	East Midlands Gateway Phase 2 – Trip Generation: Core Assessment		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0012	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Paul Wilson	REVISION	P1
APPROVED	Matt Corner	DATE	18.10.24

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development located near East Midlands Airport in Leicestershire. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 This Technical Note presents the methodology used to calculate the traffic generation associated with the proposed development for use in the transport modelling work and Transport Assessment. It builds on lengthy discussions held with the Transport Working Group (TWG) consisting of key statutory highway consultees, including National Highways (NH), Leicestershire County Council and Nottinghamshire County Council.

1.3 This Technical Note adopts the following structure:

- **Section 2** outlines the proposed development details, including gross floor areas, land uses and the access strategy;
- **Section 3** presents the trip generation calculations and assumptions for the core assessment; and
- **Section 4** summarises the key details from the Technical Note.

2. DEVELOPMENT DETAILS

Site Details

2.1 The proposed development seeks outline planning permission via a Development Consent Order for a large warehousing and distribution development, as an extension to the existing EMG1 Strategic Rail Freight Interchange. It comprises 430,000sqm of industrial development across the following sites:

- 400,000sqm of B2/B8 industrial development on EMG2, including 100,000sqm of B8 mezzanine floorspace.
- 30,000sqm of B8 industrial development on Plot 16 of EMG1.

2.2 Access to the EMG2 development is currently proposed via a fourth arm from the existing A453/Hunter Road roundabout directly south of East Midlands Airport (although there is the possibility of proposing access further to the west on the A453 instead). Plot 16 on EMG1 would be served by Wilder's Way via the existing roundabout on the A453.

2.3 **Figure 1** shows the locations of the two development parcels in context of East Midlands Airport.

Figure 1. Proposed Development Location



3. TRIP GENERATION

Deriving Trip Rates

3.1 BWB produced a Transport Scoping Note (report ref: EMG2-BWB-GEN-XX-TR-TR-0001_Transport Scoping Note) dated 31 May 2022 proposing an initial set of B2 and B8 trip rates using the latest version of the TRICS database at that time. It also compared these against the previously agreed B8 trip rates used to assess the EMG1 development, which were based on surveyed information from the Swan Valley development from 2007.

3.2 Whilst the B8 trip rates from TRICS and Swan Valley were similar, it was agreed with the TWG that the original Swan Valley B8 trip rates for EMG1 and the new B2 trip rates from TRICS are adopted. The former was requested because said trip rates were higher than that generated using the latest TRICS Database at the time and provided consistency when considering the methodology adopted for the original EMG1 consent, even if subsequent surveyed information for EMG1 shows that the actual recorded trip rates are a lot lower.

3.3 Following on-going discussions with the TWG, it was also agreed that the higher 1600 to 1700 hour shoulder peak hour trip rates are adopted in the evening, rather than the traditional 1700 to 1800 hour period. The trip rates being adopted for EMG2 are therefore identical to the those adopted for EMG1 and form a robust assessment as a result.

Mezzanine Floorspace

3.4 Discussions were also held with the TWG as to whether a reduced trip rate should be applied to the 100,000sqm mezzanine floorspace on the basis that mezzanines do not typically generate the same volume of activity as ground floorspace. This is because they are often used for ancillary purposes to enhance access to existing high level storage areas, or to house automated operations. HGV generations are also related to the number of loading bays, which would not increase as a result of mezzanines being introduced.

3.5 Whilst this was considered a reasonable assumption, there was no readily available empirical evidence to support reduced trip rates at the time, over and above the findings of the EMG1 surveys, so, again for robustness, it was agreed that the full trip rates are applied to 100% of the development floorspace i.e. 430,000sqm, to ensure a highly robust assessment.

Proposed Trip Rates & Traffic Generation

3.6 The proposed trip rates (per 100sqm GFA) for both the B2 and B8 land uses are presented in **Table 1**.

Table 1. Proposed Trip Rates

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
B8 Trip Rates (retained from EMG1 Transport Assessment)*						
Total	0.140	0.036	0.176	0.065	0.155	0.220
HGVs	0.019	0.023	0.041	0.025	0.015	0.040
B2 Trip Rates (taken from TRICS)						
Total	0.392	0.071	0.463	0.049	0.369	0.417
HGVs	0.016	0.014	0.030	0.003	0.006	0.009

**evening peak hour trip rates reflect 1600 to 1700 hour period*

3.7 The proposed development seeks permission for 430,000sqm of industrial development comprising 370,000sqm of B8 development (including 30,000sqm on Plot 16 of EMG1 and 100,000sqm of mezzanine floor space) and 60,000sqm of B2 development. **Table 2** calculates the peak hour traffic generation as a result.

Table 2. Proposed Development Traffic Generation

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
340,000sqm B8 development at EMG2						
Total	476	122	598	221	527	748
HGVs	65	78	143	85	51	136
30,000sqm B8 development at Plot 16 of EMG1						
Total	42	11	53	20	47	67
HGVs	6	7	13	8	5	13
60,000sqm B2 development at EMG2						
Total	235	43	278	30	222	252
HGVs	10	8	18	2	4	6
Total 430,000sqm development						
Total	753	176	929	270	795	1,065
HGVs	81	93	174	95	60	155

3.8 The proposed development is therefore predicted to generate 929 trips in the morning peak hour and 1,065 trips in the evening peak hour, of which 53 in the morning and 67 in the evening would be generated by Plot 16 of EMG1. This trip generation is proposed to be taken forward and assessed as part of the PRTM modelling for the core assessment and is set out in the PRTM proforma v14 that has been issued to the TWG. A copy of also included at **Appendix 1**.

HGV Movements to EMG1 Rail Freight Terminal

3.9 The PRTM assigns development trips to the network using an in-built gravity model with EMG1 adopted as a parent zone. It therefore does not assign any HGVs between the EMG2 site and the EMG1 Rail Freight Terminal and all HGVs are assigned further afield externally across the highway network. Whilst there is the potential for HGVs from EMG2 to use the EMG1 RFT, for the purposes of the strategic PRTM modelling, it is not proposed to consider HGV movements between the two sites.

3.10 Table 13 of Technical Note 04 that supported the EMG1 development considered different types of HGV movements:

1. External HGVs not using RFT i.e. unit to external
2. Internal HGVs i.e. unit to RFT to unit
3. External HGVs .e. unit to RFT to external
4. Total external HGVs (1 + 3)

3.11 An extract of the HGV trip generation from TN04 is shown at **Table 3**.

Table 3. EMG1 Rail Freight Terminal Trips

Time Window	HGVs EMG B8		
	Arrive	Depart	Two-way
00.00-01.00	61	98	159
01.00-02.00	92	92	183
02.00-03.00	98	98	195
03.00-04.00	67	104	171
04.00-05.00	92	61	153
05.00-06.00	141	86	226
06.00-07.00	141	61	202
07.00-08.00	128	171	299
08.00-09.00	104	128	232
09.00-10.00	134	122	257
10.00-11.00	153	165	318
11.00-12.00	134	128	263
12.00-13.00	104	92	195
13.00-14.00	86	141	226
14.00-15.00	104	165	269
15.00-16.00	67	128	195
16.00-17.00	141	86	226
17.00-18.00	110	134	244
18.00-19.00	134	110	244
19.00-20.00	116	79	195
20.00-21.00	128	104	232
21.00-22.00	79	116	195
22.00-23.00	73	92	165
23.00-00.00	86	98	183
Totals	2572	2657	5229

Internal HGVs 40% Rail Terminal Internal*		
Arrive	Depart	Two-way
-8	-14	-22
-13	-12	-25
-14	-13	-27
-9	-15	-24
-13	-8	-21
-20	-11	-31
-20	-8	-28
-18	-24	-42
-14	-18	-32
-19	-17	-36
-21	-23	-44
-19	-18	-37
-14	-13	-27
-12	-19	-31
-14	-23	-37
-9	-18	-27
-20	-11	-31
-15	-19	-34
-19	-15	-34
-16	-11	-27
-18	-14	-32
-11	-16	-27
-10	-13	-23
-12	-13	-25
-358	-369	-727

* Based on Swan Valley HGV profile

Rail Terminal 60% external HGVs**		
Arrive	Depart	Two-way
1	1	2
2	2	4
2	2	4
2	2	3
4	4	8
14	14	29
33	33	66
44	44	87
28	28	56
28	28	56
39	39	77
37	37	73
49	49	97
39	39	78
28	28	56
39	39	77
44	44	87
40	40	80
37	37	74
22	22	44
9	9	17
4	4	8
2	2	4
1	1	2
545	545	1091

** Based on Hams Hall Train Arrivals

Total external HGVs SRFI		
Arrive	Depart	Two-way
54	85	139
81	81	162
86	87	173
60	91	150
83	57	140
135	88	223
154	86	240
154	191	345
118	138	256
143	133	277
170	180	351
152	147	299
138	127	266
113	160	273
118	169	287
97	149	246
164	118	282
135	155	290
152	132	284
122	90	213
119	98	217
72	104	176
65	80	146
74	85	160
2759	2834	5593

3.12 This shows that in the morning peak hour, 88 HGVs (32 + 56) of the total 320 HGVs (232 + 32 + 56) at EMG1 were predicted to visit the RFT (28%) and in the evening peak hour this is slightly higher at 32%. By applying the same percentages to the EMG2 B8 HGV traffic generation shown in **Table 2** (noting that all RFT visits from EMG2 would result in an external trip), then there could be 40 HGVs in the AM peak (18 arrivals, 22 departures) and 44 HGVs in the PM peak (28 arrivals, 16 departures) visiting the RFT. Diagrams 1 and 2 contained at the end of this report shows how this would change the balance of flows in the AM and PM peak hours respectively.

3.13 In summary, whilst there could be HGV movements between EMG2 and EMG1 RFT, the overall number is expected to be low. These HGVs will be assigned externally on the highway network and so are accounted for in the PRTM modelling. The only impact of HGVs visiting the EMG1 RFT, would be at the EMG1 roundabout as there would be a

slight change in turning movements i.e. outbound HGVs heading north through the junction towards M1J24 would instead turn left into EMG1 and inbound HGVs travelling south through the junction would turn right from EMG1 towards the site. Given this should have a minimal impact on the strategic modelling, it has been agreed with the TWG that this slight change in turning movements is tested as part of the VISSIM modelling.

Impacts of Proposed Changes at EMG1 Terminal

3.14 The proposals seek permission to increase the height of the cranes at the EMG1 terminal. Questions had been raised by the TWG as to whether this could increase the number of HGVs visiting the EMG1 RFT and whether this needs accounting for in the traffic modelling. BWB produced a separate Technical Note (EMG2-BWB-GEN-XX-RP-CH-0011_EMG1 Rail Terminal, issued to the TWG under separate cover on 15 October 2024) explaining how the changes at the EMG RFT would have no impact on road traffic and therefore should not need considering within the traffic modelling work. A copy of this note is included at **Appendix 2**.

4. SUMMARY

4.1 This Technical Note has summarised the methodology adopted to calculate the peak hour trip generation for the EMG2 development. It adopts the same trip rates to those used to assess the EMG1 development, which based on a development of 430,000sqm results in 929 morning peak hour trips and 1,065 evening peak hour trips.

4.2 This trip generation is presented in the PRTM proforma v14 dated 10 October 2024, which is to be used within the upcoming PRTM modelling for the Stage 1 modelling work. Any additional 'Vision and Validate' assessment scenarios will be dealt with separately.

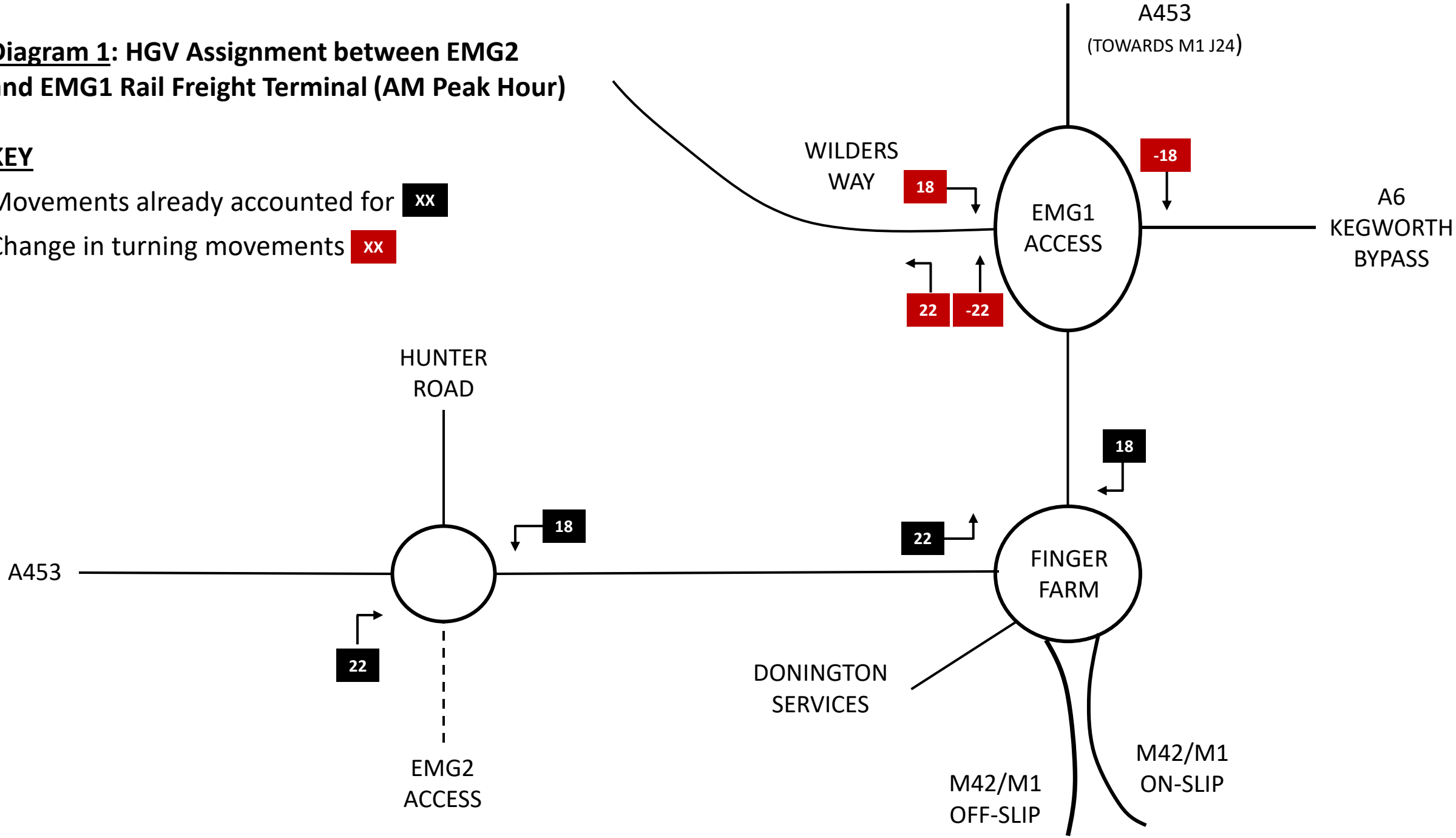
DIAGRAMS

Diagram 1: HGV Assignment between EMG2 and EMG1 Rail Freight Terminal (AM Peak Hour)

KEY

Movements already accounted for XX

Change in turning movements XX

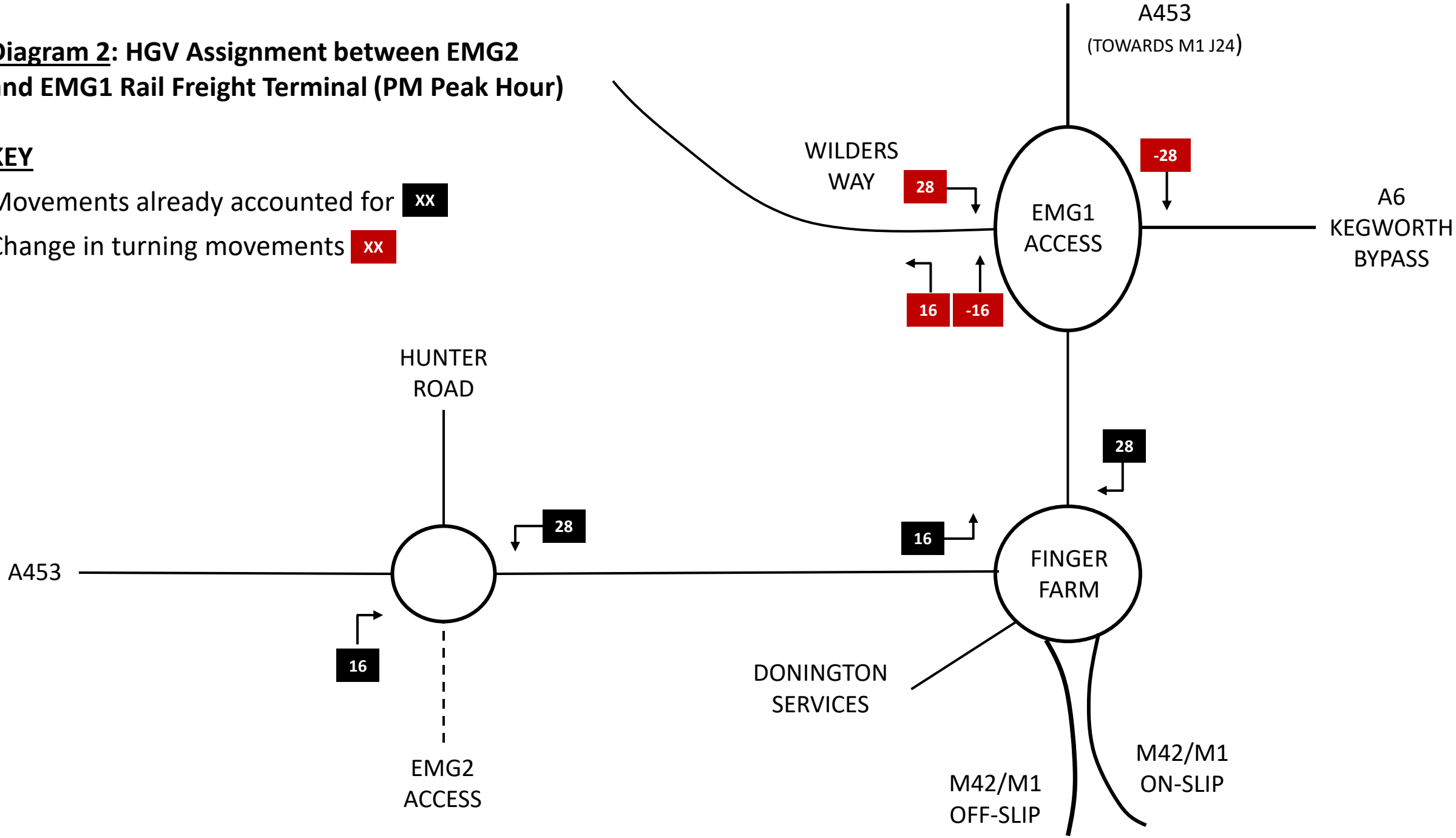


<u>Diagram 2</u>: HGV Assignment between EMG2 and EMG1 Rail Freight Terminal (PM Peak Hour)

<u>KEY</u>

Movements already accounted for XX

Change in turning movements XX



APPENDIX 1: PRTM Proforma v14

Leicestershire County Council

Pan Regional Transport Model (PRTM) Development Testing Proforma

Foreword:

Before completing this form for development management purposes, it is recommended that you contact Leicestershire County Council (LCC) and seek advice from the Highway Development Management (HDM) team on the proposed use of PRTM. The HDM team can be contacted at hdc@leics.gov.uk.

Although not a requirement it is strongly recommended that potential stakeholders, e.g. LCC HDM, National Highways, sign-off on your brief and trip generation before submitting this proforma to Environment and Transport Modelling Services Contract (E&T MSC). This should ensure that any subsequent work proposal through E&T MSC is as accurate as possible in terms of scope, timescales and cost.

Please note that E&T MSC and wider Network Data and Intelligence (NDI) Team work independently from all other teams within LCC, including HDM. Please ensure any correspondence intended for the HDM team is sent to the case officer for your (pre)application; or, if unknown, to HDM's generic inbox: hdc@leics.gov.uk.

On the following page is an indicative flowchart summarising the general transport modelling process for using the PRTM to inform client Transport Assessments; this is a typical approach and has been simplified to a generic process – each individual application may differ from the below and as above advice should be sought from the HDM team.


Pre-meeting between client and HDM/stakeholders to discuss brief and suitability of PRTM
HDM/stakeholder approved brief and PRTM proforma submitted to E&T MSC framework by client
E&T MSC to send brief and proforma to Framework consultants and commission as applicable.
Commissioned consultant produces model validation report and extracts relevant network scheme and planning data assumptions
Client circulates local model validation report and model assumptions to stakeholders for sign-off
Inception meeting is arranged once sign-off is complete to discuss the modelling methodology
Commissioned consultant undertakes forecasting of all scenarios bar mitigation runs, creates report for client
Client interprets model forecast results and suggests and agrees junctions, with relevant stakeholders, for further assessment
Client undertakes further assessment and formalises mitigation packages
Commissioned consultant undertakes forecasting of mitigation scenario and creates addendum to forecasting report
E&T MSC commission complete

Leicestershire County Council

Section 1: Client Details

Name:	Paul Wilson
Company:	BWB Consulting Ltd (on behalf of Segro)
Telephone:	07889995471
E-mail:	paul.wilson@bwbconsulting.com
Date:	10/10/2024

Section 2: Project Details

Title:	East Midlands Gateway Phase 2
District / Location:	Land to the southeast of EMA, and southwest of M1J23a in North West Leicestershire DC's jurisdiction
Background:	EMFM modelling has recently been undertaken for forecast years of 2025 and 2035 (reference EMGP2 proforma Revision 6). Due to the passage of time with submitting the EMG2 application, revised EMFM modelling is now required for higher forecast years of 2028 (opening year) and 2038 (10 years post opening). There have been changes to the evening peak hour trip rates and the scale of development, which is now being proposed at 400,000sqm on EMG2 (to account for 300,000sqm of ground floorspace and 100,000sqm of potential B8 mezzanine floorspace) plus 30,000sqm of B8 floorspace on EMG1 (Plot 16). The entire EMG2 development is now proposed to be served by a single point of access via a fourth arm from the A453/Hunter Road roundabout. Plot 16 on EMG1 would be served by the existing access via Wilder's Way. The revised uncertainty log also picks up on any new developments during the higher opening and future years. This version of the proforma sets out the updated modelling work based on the above changes. We are however considering other scenarios and a 'vision and validate' sensitivity test based on more up to date EMG1 trip rates and considering in detail the activity generated by mezzanines. However, further information will need to be shared, and methodology agreed with the TWG, for these scenarios, which will be set out in due course in a separate proforma assuming such an approach is indeed continued with.

Section 3: Development Details

Please input your development phasing into the provided table on the right; if it is a mixed-use site, please separate dwellings and employment floorspace with a comma. This table will act as an overview to the detail provided further in this proforma as well as the supporting brief (if available).

There are two main forms of assessment that the E&T MSC offers, a highway-only model run and a full-PRTM model run. Your HDM Case Officer will confirm which type of assessment is needed for your development.

For highway-only model runs please provide details in section 3a, for full model runs please provide details in section 3b.

Please provide a brief description of the access arrangements in the box below; if there are preliminary scheme drawings available please provide these alongside submission of this proforma via email attachment.

Brief description of access arrangements:

Having reflected on matters recently, the access proposals to EMG2 are being revised. One main access is now being introduced, via a fourth arm of the existing A453/Hunter Road roundabout to serve 100% of the development plus the bus interchange, which can then connect directly into the site.

A separate emergency access would also be provided, but that won't affect the revised modelling work.

Development on Plot 16 of EMG1 would be served by the existing access via Wilder's Way.

.

Year	No.
2021	Figure
2022	Figure
2023	Figure
2024	Figure
2025	Figure
2026	Figure
2027	Figure
2028	*130,000sqm*
2029	*100,000sqm*
2030	*100,000sqm*
2031	*100,000sqm*
2032	Figure
2033	Figure
2034	Figure
2035	Figure
2036	Figure
2037	Figure
2038	Figure
2039	Figure
2040	Figure
2041	Figure
2042	Figure
2043	Figure
2044	Figure
2045	Figure
2046	Figure
2047	Figure
2048	Figure
2049	Figure
2050	Figure
2051	Figure
Total	*430,000sqm*

Section 3a: Highway Model Only Development Details

Please provide either the agreed trip rates and/or trip generation for your development in the relevant tables below. Depending on your land use and agreed approach with LCC HDM, values may not be required for all three time periods.

Trip Rates:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

Employment: B2

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.376	0.057	0.433	-	-	-	0.046	0.363	0.408
HGV's	0.016	0.014	0.030	-	-	-	0.003	0.006	0.009
Total	0.392	0.071	0.463	-	-	-	0.049	0.369	0.417

Employment: B8

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	0.121	0.013	0.135	-	-	-	0.040	0.140	0.180
HGV's	0.019	0.023	0.041	-	-	-	0.025	0.015	0.040
Total	0.140	0.036	0.176	-	-	-	0.065	0.155	0.220

The B8 trip rates for the PM peak now mirror the 1600 to 1700 hour shoulder peak trip rates adopted for EMG1

Trip Generation:

Housing: N/A

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles									
HGV's									
Total									

EMG2 (400,000sqm)

Employment: B2; 60,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	226	34	260	-	-	-	28	218	246
HGV's	10	8	18	-	-	-	2	4	6
Total	235	43	278	-	-	-	30	222	252

Employment: B8 340,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	411	44	455	-	-	-	136	476	612
HGV's	65	78	143	-	-	-	85	51	136
Total	476	122	598	-	-	-	221	527	748

Employment: TOTAL EMG2 DEVELOPMENT

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	637	78	715	-	-	-	164	694	858
HGV's	75	86	161	-	-	-	87	55	142
Total	711	165	876	-	-	-	250	748	998

Plot 16 EMG1 (30,000sqm)

Employment: B8 30,000sqm GFA

Vehicle Type	AM			IP			PM		
	Arr.	Dep.	Total	Arr.	Dep.	Total	Arr.	Dep.	Total
Light Vehicles	36	4	40	-	-	-	12	42	54
HGV's	6	7	13	-	-	-	8	5	13
Total	42	11	53	-	-	-	20	47	67

Section 3b: Full Model Run Development Details

Please provide the number of dwellings and/or employment floorspace, or preferably if known, jobs for each of the sub-categories below.

Employment Development Land Use:

Land Use	Class	Unit	Quantum	Jobs
Shops	A1	m^2		
Business	B1a	m^2		
General Industrial	B2	m^2	*60,000*	*TBC*
Storage or Distribution	B8	m^2	*370,000**	*TBC*
Research & Development	B1b	m^2		
Leisure	D2	m^2		
Hotels	C1	Beds		
Education	D1	Jobs		

** includes 340,000sqm of B8 floorspace on EMG2 and 30,000sqm of B8 floorspace on Plot 16 of EMG1*

Housing Development Land Use:

Land Use	Class	Dwellings
Dwellings	C3	

Section 4: Modelling Required

Assessment Years:

Please select your assessment years from the options below. Please note that if you need PRTM forecast years to infer model flows to correspond with data collection, you will need to select the 'shoulder' forecast years (i.e. inferring the 2018 model forecast year will require 2016 and 2021 PRTM forecast years). Bespoke individual forecast years may be requested with the "Other, please specify" option, but this does not guarantee inclusion in any provided proposal.

2014 (base) ☐	2016 ☐	2021 ☐
2026 ☐	2031 ☐	2036 ☐
2041 ☐	2046 ☐	2051 ☐
Other, please specify:	2028 and 2038 forecast years are required (year of opening and post 10 years). A revised 2022 forecast base year assessment is also required, alongside a 2023/2024 forecast base for air and noise quality purposes (exact approach TBC with AECOM post the meeting on 3/10/24).	

If required, please provide proposed phasing in each forecast year selected above, in the box below. An example has been included in green, please delete and populate with your data.

2022: 0% development (do minimum) 2028: 100% occupancy 2038: 100% occupancy

Assessment Options:

Please select which scenarios you will want testing, as well as defining which model year each scenario corresponds to as this can potentially be multiple forecast years for one scenario; this will depend on your discussions with HDM and their requirements.

Scenario	Choice	Model Year(s)
Core	Assumed	2022/2028/2038
Core + no development + access strategy	☐	
Core + development + no mitigation	Assumed	2028/2038
Core + development + mitigation	☒	2028/2038

Other, please specify:	The following scenarios will need testing as part of the Stage 1 modelling: i) 2019 baseline year (for air quality purposes) ii) 2022/2023/2024 forecast base year (2023 and 2024 TBC for noise and air quality purposes) iii) 2028/2038 forecast year without development (with EM Freeport and Local Plan related schemes, including Isley Woodhouse, Land West of Castle Donington and the Coaker Land schemes) iv) 2028/2038 forecast year with development (with EM Freeport and Local Plan related schemes, including Isley Woodhouse, Land West of Castle Donington and the Coaker Land schemes) v) Construction traffic – further information still to be provided NB Covid sensitivity testing is to be considered further for the TWG to agree the approach to be adopted in the Stage 2 modelling work; further information has been provided by AECOM/Jacobs to inform decision making There will be a need to run the mitigation schemes through the EMFM once agreed. This will test the core development trips included in this proforma plus a scenario with reduced development trips as part of a 'vision and validate' strategy, details to be provided. Please therefore include fee for two mitigation runs (hopefully this will be limited to one). Additional scenarios have been requested from an air and noise quality perspective which has been sent separately via a Technical Note from Buro Happold.

Time Period Selection:

Please select the time periods you would like your development assessed in.

AM (0800-0900)	☒
IP (average hour for 1000-1600)	☐
PM (1700-1800)	☒

Indicative list of Junctions for Further Assessment:

If known, please provide an indicative list of expected junctions that may be required for further assessment in the box below. This, in turn, will facilitate the delivery of strategic model outputs to inform any further detailed junction assessments. Failing that, a rough estimation of the number of junctions that **may** require further assessment will aid consultants in producing robust quotations within their proposals.

We have currently agreed the following 17 junctions will be modelled as part of the Transport Assessment, which we will require strategic model outputs for (NB LCountyC in particular have confirmed that they will agree the study area following modelling outputs). The purpose of this list is simply to allow AECOM to quote for providing detailed data over a defined area, albeit this may change later.

Junction 2) A453/Hunter Road Roundabout (Leicestershire)

Junction 3) Finger Farm Roundabout (National Highways)

Junction 4) A453/EMGP1 Signal Gyratory (National Highways)

Junction 5) M1 Junction 24 (National Highways)

Junction 6) A453/East Midlands Airport Signal Junction (Leicestershire)

Junction 7) A453/Grimes Gate Priority Junction (Leicestershire)

Junction 8) A453/The Green Priority Junction (Leicestershire)

Junction 9) A453/East Midlands Airport Roundabout (Leicestershire)

Junction 10) A453/Walton Hill Signal Junction (Leicestershire)

Junction 11) A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout (National Highways)

Junction 12) M1 Junction 23 (National Highways)

Junction 13) A50 Junction 1 (National Highways)

Junction 14) M1 Junction 25 (National Highways)

Junction 15) Station Road/Broad Rushes Roundabout (Leicestershire)

Junction 16) A453/Kegworth Road dumbbell Roundabouts (Nottinghamshire)

Junction 17) A453/Barton Lane/West Leake dumbbell Roundabouts (Nottinghamshire)

Section 5: Pre-Modelling Outputs

This section details the options available to the client pre-modelling; typically, in aid of model assurance for project stakeholders to ensure no abortive work is undertaken. Please de-select which pre-modelling outputs you do not require, as these are usually standard documents provided to HDM.

Project Specific Study Area Model Validation Report	☒
Local Planning Data Assumptions	☒
Network Scheme Uncertainty Log	☒

NB a project specific validation report is assumed not needed given a previous LMVR has already been produced; the hope being that the minor changes to the other two items above are a quick and simple exercise.

NNB AECOM confirmed in the last TWG that an addendum will be produced in light of TAG Databook changes and model comparisons undertaken.

Section 6: Post-Modelling Outputs

Highway Model Outputs:

The following highway model output options are available post-transport-model assignment. Some metrics below will need to be specified by the client after analysis of the forecasting report; for instance, “individual junction plots” which would tie in with the relevant sub-section in Section 4.

Area of Influence (AoI) (criteria defined as 5% and 30 PCU change)	Assumed
Highway Flow Changes within AoI	Assumed
Highway Delay Changes within AoI	☒
Individual Junction Plots – Turning Flows	☒
Individual Junction Plots – Volume/Capacity Ratio	☒
Maximum Volume/Capacity Ratio Plots	☒
Select Link Analysis of Development Traffic (link based)	☒
Provision of flow data for junction design/assessment	☒
AADT/AAWT	☒
The following model outputs would be required in shape file format for the purposes of our subsequent analysis (which may overlap with above). - AM/PM Peak flows classified into Lights/Heavies/Total - AM/PM/AADT Development only flows classified into Lights/Heavies/Total - Maximum Junction VoC - Link Delay - Link Queue - AADT classified into Lights/Heavies/Total - AAWT (24hr, 18hr, 8hr) classified into Lights/Heavies/Total - Mean speeds of links - Road Class Further to the above extraction of cordon matrices (actual flows) for the VISSIM modelling extent is required which includes the following junctions: - M1 J24; - M1 J24a southbound merge onto the M1 and M1 junction 24; - A453/EMG Phase 1/Kegworth Bypass signal controlled gyratory; - M1 J23a Finger Farm roundabout (including M1/A42 on and off slip roads); - A453/Hunter Road/minor EMG Phase 2 access roundabout; The outputs from the cordon matrices should include: - Cordon matrices (in vehicle) for o Cars / LGVs / HGVs o AM Peak hour / PM Peak hour (including shoulder peaks if available) - The cordon matrices to be provided in spreadsheet format. The above should provide an exhaustive list of information requirements, however, as discussed with LCC's NDI team and AECOM during a meeting on 16/05/24 there may be benefit in	

including for a provisional additional fee of £10k for any other additional requests, which wouldn't be invoiced if not required.	

Variable Demand Model Outputs (full PRTM run required):

The following demand model output options are available post-transport-model assignment.

Mode Share reporting; PT, Car, Active	☐
Trip Distance, 24-hour trip making & sustainability	☐

Public Transport Model Outputs (full PRTM run required):

The following highway model output options are available post-transport-model assignment.

Change in travel time, distances & speeds	☐
Distribution Analysis/Diagrams of Development Traffic	☐
Travel Time Changes along Key Routes	☐
Public Transport Passenger Changes	☐

Environmental Model Outputs:

Environmental model outputs are available post-transport-model assignment. Please note that environmental outputs will require a separate commission via the E&T MSC Manager, please contact ETCF@leics.gov.uk if you require emission or dispersion modelling to support your application.

Section 7: Supporting Documents

Supporting Documents:

Please provide any supporting documents that have been selected below to the E&T MSC Manager upon delivery of your proforma.

Location Plan Access Scheme Drawings Development Masterplan (to be updated in the coming weeks)	☒ ☒ ☐
Other, please specify:	Click here to enter text

Client's Expected Timescales:

Please provide an approximation for your client's timescales for this modelling commission in the box below; please take into consideration HDM's and National Highways' standard response times and sign-off procedures to avoid unrealistic timescales being provided and slippage to your project.

As discussed with LCC's NDI team and AECOM during recent meetings there is an urgent need to pick the modelling work back up.

Section 8: Contact Details

Email the completed form, along with supporting documents to ETCF@leics.gov.uk

For queries regarding the modelling process please contact:

Laura Good – ETCF & E&T MSC Manager
Email: ETCF@leics.gov.uk

APPENDIX 2: BWB Technical Note EMG-BWB-GEN-XX-RP-CH-0011 (EMG1 Rail Freight Terminal)

Project	**East Midlands Gateway 2 (EMG2)**		
Document Number	EMG2-BWB-GEN-XX-RP-CH-0011	**BWB Ref**	220500
Author	Simon Hilditch	**Status**	S2
Checked	Matt Corner	**Revision**	P01
Approved	Paul Wilson	**Date**	15.10.2024

1 INTRODUCTION

1.1 East Midlands Gateway 1 (EMG1) provided an intermodal rail terminal to serve the East Midlands. As part of the East Midlands Gateway 2 (EMG2) proposals an amendment is proposed to the EMG1 consented terminal.

1.2 The purpose of this note is to explain the consented terminal for EMG1, the proposed amendments for EMG2 and confirm that this does not impact the consented traffic envelope for EMG1.

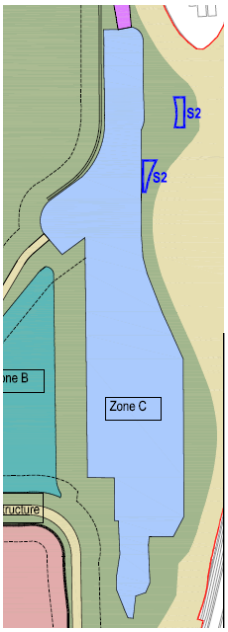
2 EMG1 CONSENTED TERMINAL

2.1 The EMG1 terminal, as consented as part of the EMG1 development consent order (DCO), has the capacity to accommodate up to 16 trains per day (16 arrivals and 16 departures). It has four loading/unloading sidings, which are 775 metres long to accommodate the largest planned intermodal trains.

2.2 The (road) traffic envelope for the EMG1 terminal was determined, agreed and consented on the above basis.

2.3 Considerable space is provided within the rail terminal for the storage of containers. As part of the original EMG1 consent, the containers were permitted to be a maximum of 10m high stacks, which allowed for three high-cube (2.9m high) containers.

2.4 **Figure 1** below shows an extract of the Parameters Plan which is part of the EMG1 DCO.



SCHEDULE OF PARAMETERS

Zone	Number of Units	Maximum Development floorspace Per Zone in m²	Maximum Plateau level (in m Above Ordnance Datum)	Building Height Range measured to roof ridge / highest point
Zone B	1 to 2	938	58.40	Building 10.0m
				Container Storage max height 10.0m
Zone C	2 to 4	1,000	43.90	Building 10.0m
				Container Storage max height 10.0m
				Gantry Cranes 20.0 m max. ht

Figure 1: EMG1 parameters plan extract for the rail terminal

2.5 More recently, separate planning consents under the Town and Country Planning Act have been approved to allow the majority of the terminal to have 15m high container stacks which allow for five high-cube (2.9m high) containers to be stacked. This has significantly increased the storage capacity of the terminal. However, this has not affected throughput of the terminal which is driven by the number of trains arriving and departing, which remains at a maximum of 16 trains per day.

3 OPERATIONAL EFFICIENCY

3.1 At the time of writing, the terminal has around six trains per day (six arrivals and six departures). The terminal is operated by reach stackers, which are large vehicles that pick up containers and move them around the terminal, stack the containers and load & unload the trains.

3.2 When the terminal has more trains in the future, the most efficient operation of moving containers on and off the trains is to use cranes. The maximum crane height within the consented scheme for EMG1 is 20m as shown on **Figure 1** above as this was based on the container stack height of 10m.

4 EMG2 AMENDMENT

4.1 The proposed amendment for EMG2 is to increase the maximum crane height to around 24m which will then permit the stacking of containers to 15m.

4.2 Whilst this may have environmental impacts that will be assessed as part of the Environmental Assessment for EMG2, this will not increase the number of trains serving the terminal beyond the 16 assessed for the consented EMG1 scheme and as such there will be no impact on the (road) traffic generated by the terminal.

4.3 Consequently, the trip generation details set out within PRTM proforma v14 (dated 10 October 2024) remain suitable and robust to test the impacts of the EMG2 development, without the need for further consideration of the proposed changes at the EMG1 rail terminal.

APPENDIX 12: Construction Traffic Calculations (document reference EMG2-BWB-GEN-XX-RP-TR-0013_S2-P3)

PROJECT NAME	East Midlands Gateway Phase 2 – Construction Traffic Calculations		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0013	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Simon Hilditch	REVISION	P3
APPROVED	Paul Wilson	DATE	11.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 This Technical Note presents the methodology used to calculate the traffic generation during the construction phase of the development. It follows the same methodology adopted on other nationally significant employment DCO projects with Segro at East Midlands Gateway (EMG1) and Northampton Gateway, although without the Strategic Rail Freight Terminal element as this is not proposed at EMG2.

1.3 A separate Explanatory Note has been produced setting out the assumptions and process adopted in calculating construction traffic. A copy is included in **Appendix 1**.

2. CALCULATION METHODOLOGY

2.1 The following calculations consider the tonnes of material required to construct various components of the development based on a unit of measurement. The key components being:

- Roads (EMG2 and EMG1)
- Off-site highway works (EMG2 site access, EMG1 site access, M1J24, A453/The Green)
- Bridges
- Earthworks (EMG2 and EMG1)
- Buildings (EMG2 and EMG1)
- Landscaping (EMG2 and EMG1)

2.2 It should be noted that reference to EMG2 relates to the main site south of the A453 and East Midlands Airport, whilst reference to EMG1 relates to works associate with developing Plot 16 at the existing EMG site. The off-site highway works are based on the original PRTM modelling work and current mitigation design which reflect 2025 and 2035 future years. If the mitigation strategy changes as a result of the revised PRTM modelling, then this could affect the construction traffic calculations which would then need reconsidering.

2.3 The total number of HGV movements has been calculated based on 18.5T per movement.

2.4 The total number of LGV movements has been calculated based on the following percentages of the HGV movements for each construction component i.e. for 'roads (on-site)' the total number of LGVs equates to 20% of the total HGVs.

- Roads (on site) – 20%
- Roads (off site) – 20%
- Bridges – 40%
- Earthworks – 50%
- Buildings – 20%
- Landscaping – 400%

2.5 The total number of cars and vans varies depending on each construction component and are based on Segro's knowledge of developing other sites. However, it has been assumed that cars have an occupancy rate of 1 person and vans have an occupancy rate of 2 people.

2.6 The number of construction days has been calculated at 49 weeks x 5 day = 245 days per year.

2.7 To establish daily construction movements, total construction traffic has been divided by the days per year x duration in years. A separate Excel Spreadsheet has been produced containing the detailed calculations, contents of which are included at **Appendix 2**, whilst an extract is shown below. A copy of the Excel spreadsheet can be provided on request. **Table 1** subsequently shows the daily construction vehicle movements across the five-year construction period for each vehicle type. This is broken down by works at EMG2, EMG1 and external highway works i.e. at M1 J24 and A453/The Green based on the current mitigation strategy, which is subject to confirmation using outputs from the revised PRTM modelling.

2.8 To give an example, for the 'Roads (EMG2 Main Site)' component, this is expected to be on-going for a total of 367.5 days based on 5 days per week for 49 weeks multiplied by 1.5 years (49 x 5 x 1.5). Across the 367.5 days, there are expected to be a total of 7,750 HGV movements based on the total mass of material required. The daily number of HGVs has been calculated by dividing the total 7,750 HGV movements by 367.5 days, resulting in 21.09 daily HGVs (7,750 / 367.5).

2.9 The daily number of LGV movements (4.22) has then been calculated based on 20% of the daily number of HGVs (21.09 x 0.2 = 4.22).

CONSTRUCTION TRAFFIC CALCULATIONS

EAST MIDLANDS GATEWAY PHASE 2

BWB
A CAF GROUP COMPANY

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	19.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	–	**32.65**	21.09	–	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	–	**6.53**	4.22	–	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	–	**19.59**	42.18	–	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	–	**19.59**	31.63	–	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	–	–		–				–				39.54			
Yr 3	LGV	**7.91**	**7.91**	–	–		–				–				7.91			
Yr 3	Car	**19.77**	**19.77**	–	–		–				–				19.77			
Yr 3	Vans	**26.36**	**26.36**	–	–		–				–				26.36			
Yr 4	HGV	**39.54**	**39.54**	–	–						–	–			39.54			
Yr 4	LGV	**7.91**	**7.91**	–	–						–	–			7.91			
Yr 4	Car	**19.77**	**19.77**	–	–						–	–			19.77			
Yr 4	Vans	**26.36**	**26.36**	–	–						–	–			26.36			
Yr 5	HGV	**39.54**	**39.54**	–	–						–	–			39.54			
Yr 5	LGV	**7.91**	**7.91**	–	–						–	–			7.91			
Yr 5	Car	**19.77**	**19.77**	–	–						–	–			19.77			
Yr 5	Vans	**26.36**	**26.36**	–	–						–	–			26.36			
TOTAL																		

Table 1 – Daily Construction Vehicle Movements by Year

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.10 For robustness, the calculations assume that all construction components would start in Year 1. The details in **Table 1** show that peak construction traffic would occur in Year 1 with a total of 718 daily two-way construction vehicle movements, comprising 385 movements for works at EMG2, 169 movements for works at EMG1 and 165 movements for external highway works. **Tables 2** and **3** set out the assumptions made for the timings of arrivals and departures for each vehicle type has been adopted.

Table 2. Percentage Timings of Arrivals

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
Total	**100%**	**100%**	**100%**	**100%**

Table 3. Percentage Timings of Departures

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
Total	**100%**	**100%**	**100%**	**100%**

2.11 The above assumptions were previously agreed for the East Midlands Gateway and Northampton Gateway DCO projects.

2.12 **Tables 4, 5** and **6** summarise the peak hour construction traffic for the EMG2 works, EMG1 works and external highway works respectively, based on the worst-case Year 1 construction period, taking into account the above assumptions. The Excel spreadsheet shows the volume of construction traffic across all 13 hours (0600 to 1900 hours) for clarity.

Table 4. Peak Hour Construction Traffic Generation (EMG2 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	7	7	14	1	1	2
LGV	2	2	4	0	0	0
Car	11	2	13	3	16	19
Vans	23	5	27	6	35	41
Total	**43**	**16**	**58**	**10**	**52**	**62**

Table 5. Peak Hour Construction Traffic Generation (EMG1 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	4	4	8	1	1	2
LGV	1	1	2	0	0	0
Car	5	1	6	1	7	8
Vans	8	2	10	2	12	14
Total	**18**	**8**	**26**	**4**	**20**	**24**

Table 6. Peak Hour Construction Traffic Generation (External Highway works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	5	5	10	1	1	2
LGV	1	1	2	0	0	0
Car	4	1	5	1	6	7
Vans	6	2	8	2	9	11
Total	**16**	**9**	**25**	**4**	**16**	**20**

2.13 **Table 7** calculates the total peak hour construction traffic for all three sets out works, calculated as a sum of the values in **Tables 4**, **5** and **6**.

Table 7. Peak Hour Construction Traffic Generation (Total)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	17	17	34	3	3	6
LGV	3	3	6	1	1	2
Car	19	4	23	5	29	34
Vans	38	8	45	9	56	65
Total	**77**	**32**	**108**	**18**	**89**	**107**

2.14 The details show that there is expected to be a total of 108 two-way construction vehicle movements in the morning peak hour and 107 in the evening peak hour, including both movements by operatives (car and van), LGVs and HGVs.

3. PROPOSED ASSESSMENT METHODOLOGY

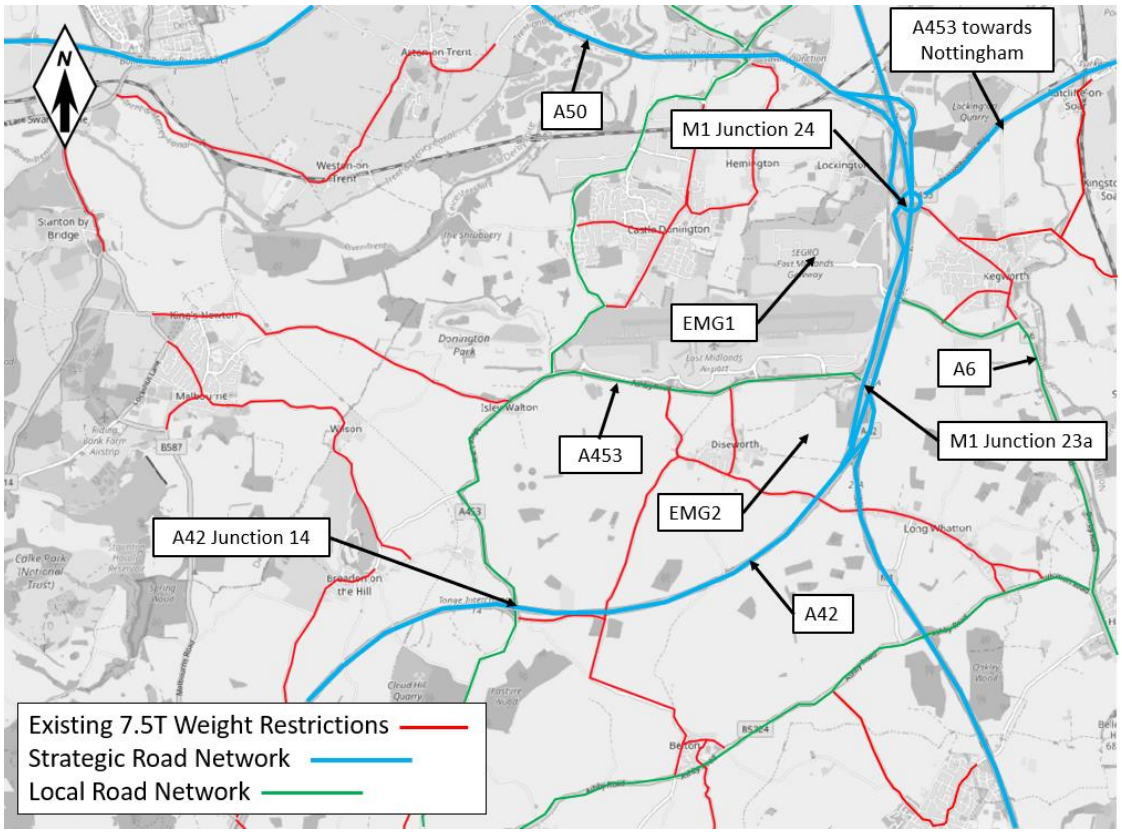
3.1 Whilst peak hour construction movements are expected to be low and do not warrant any further capacity assessment on the surrounding highway network, it is proposed that the peak hour/daily traffic is tested through the Pan Regional Transport Model (PRTM) to provide outputs to inform the ES Chapter, which requires an assessment of AADT construction traffic. Hence peak hour flows will be modelled and a factor will be applied in PRTM to derive AADT movements. This factor will mirror the daily construction vehicle calculations presented in **Table 1**.

3.2 The loading points of construction traffic in PRTM can be split by the various locations based on the values in **Tables 4, 5** and **6**. The distribution of construction traffic will be undertaken within PRTM based on the most appropriate methodology, which at this stage is expected to be via a gravity model approach.

3.3 The PRTM modelling of construction traffic will provide an indication of the likely increase in traffic across the network, which can be compared against the 2028/2038 forecast base year flows (without development), which are being provided as part of the Stage 1 modelling by AECOM. This will provide an understanding of the percentage increase in traffic which will be detailed in the ES Chapter.

3.4 Further details with regard to the routing of construction traffic and measures to limit impacts on the network will be provided in a separate Construction Traffic Management Plan. This includes a commitment to capping construction vehicle movements to those sown in **Tables 4, 5, 6** and **7** and monitoring traffic movements over the construction phase. In addition, consideration can be given to the impacts of lane closures and road space needed to deliver the external highways works, but again this will be covered separately at the appropriate time. HGV route choice will however need to consider existing weight restrictions on the surrounding roads, of which there are a number surrounding the site (as shown on **Figure 1**), which will help limit any impacts along the most sensitive routes and ensure that HGVs use the more strategic routes when travelling to the site. These weight restrictions are already coded into PRTM and was confirmed as part of the Base Model Validation Report.

Figure 1. Existing Weight Restrictions



4. SUMMARY

4.1 This Technical Note presents the traffic generation calculations for the construction phase of the EMG2 development. It follows previous methodologies adopted for other large DCO applications, including at East Midlands Gateway and Northampton Gateway and are based on inputs from an Excel spreadsheet provided by Segro.

4.2 The calculations consider each construction component individually and calculate the daily and peak hour construction vehicle movements for cars, LGVs, vans and HGVs across the five-year construction period.

4.3 The calculations confirm that peak construction activity would occur in Year 1, with a total of 718 daily two-way construction vehicle movements. When converted to peak hour traffic, there is expected to be a total of 108 movements in the AM peak hour and 107 movements in the PM peak hour (two-way). Whilst peak hour activity is expected to be low, construction traffic is proposed to be tested in PRTM for the purpose of obtaining AADT information for the ES Chapter.

Appendix 1. Explanatory Note

EMG2 Construction Traffic Calculations – Explanatory Note

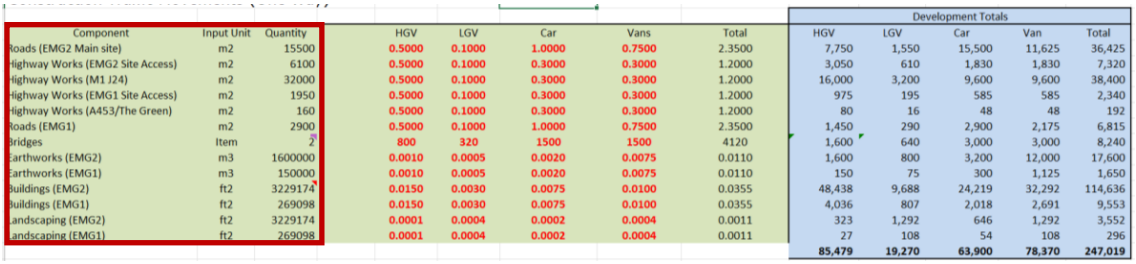
1. Introduction

1.1 This Explanatory Note has been prepared to provide guidance to users reading BWB's Construction Traffic Calculations Technical Note ref: EMG2-BWB-GEN-XX-RP-TR-0013, which calculates the construction traffic forecasts for the East Midlands Gateway Phase 2 project (EMG2). It also provides guidance on navigating the accompanying Excel spreadsheet so that users can understand how the calculations have been derived and any assumptions made.

2. Methodology

2.1 The Excel spreadsheet includes two tabs. The 'calculations' tab provides the inputs and assumptions behind the calculations, whilst the 'Daily_Hourly Flows' tab summarises the data for the purposes of reporting.

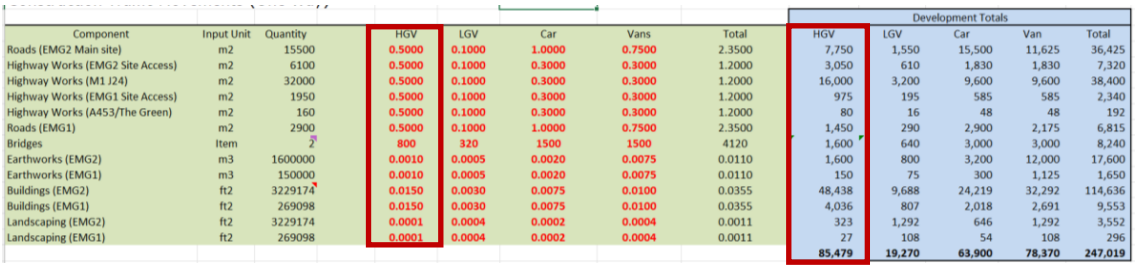
2.2 Starting with 'calculations' tab, this firstly lists the various construction components, the quantity of material needed to construct each component and the unit of measurement down the left-hand side.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.3 The volume of HGVs is determined based on a resourced programme with standard elements of work, so in this instance the number of visits needed to deliver the quantity of material to build each particular component and is applied as a factor. The factors reflect historic survey work undertaken by Segro on existing construction sites. As an example, a HGV factor of 0.5 is applied to all highway works.

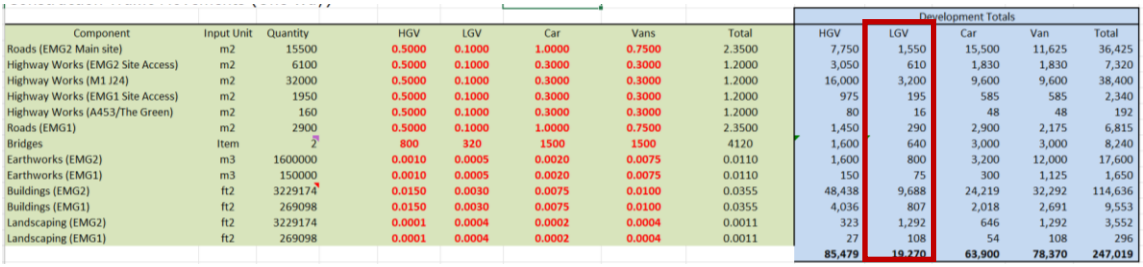
2.4 This factor is then used to calculate the total number of HGV movements that would be required to deliver the total quantum of material for each construction component.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.5 The total number of LGV movements are then derived as a percentage of total HGV movements, again reflecting historic surveys Segro has undertaken. The following percentages are adopted for each construction component, noting that a higher proportion of LGVs are generated for landscaping purposes compared to highway works. These values reflect one-way movements.

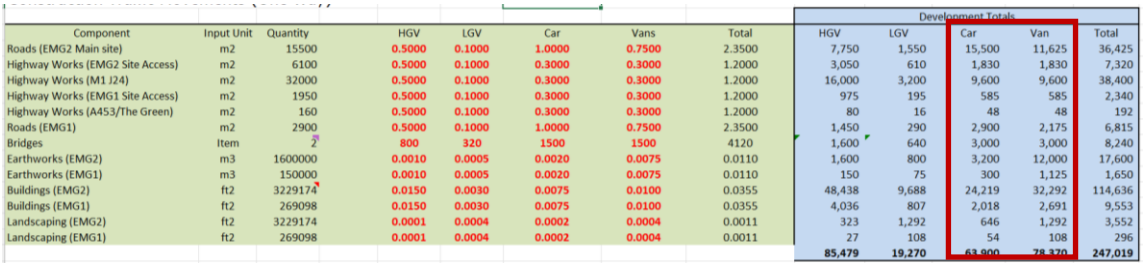
- Roads = 20%
- Highway works = 20%
- Bridges = 40%
- Earthworks = 50%
- Buildings = 20%
- Landscaping = 400%



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
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Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
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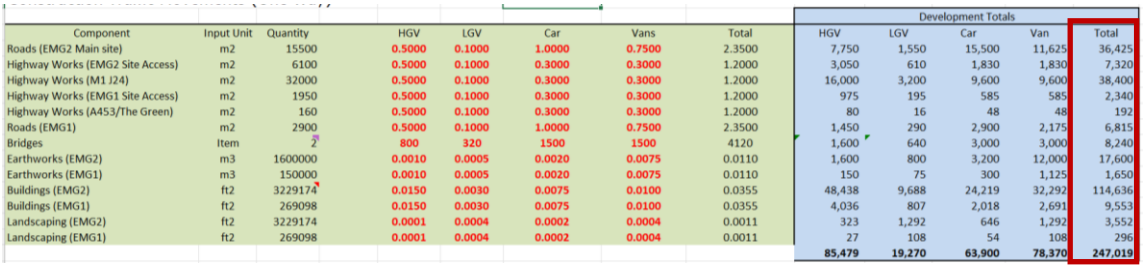
2.6 The methodology for calculating car and van movements is the same and based on a resource programme with a standard element of works and includes movements from operatives, management, visitors and supervisors, which derives a factor similar to HGVs and LGVs. The factors reflect the following occupancy rates:

- Car = 1 person
- Van = 2 persons



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
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								85,479	19,270	63,900	78,370	247,019

2.7 Finally, total construction vehicle movements are calculated as a sum of HGVs, LGVs, cars and vans.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
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								85,479	19,270	63,900	78,370	247,019

2.8 The amount of time to complete each construction component is then set in years and reflects Segro's construction programme for EMG2. The number of years is then converted to working days, assuming 5 day working weeks for 49 weeks ((49 x 5) x no. of years). For example, the number of working days expected to complete the 'Roads (EMG2 Main Site)' component is 367.50 days ((49 x 5) x 1.5).

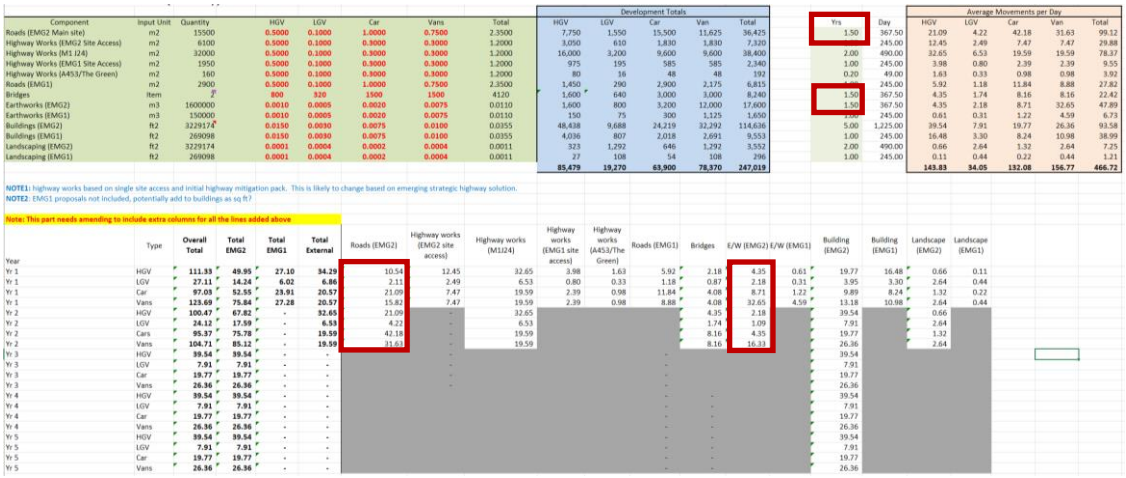
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.9 The daily number of vehicle movements for each construction component is then calculated by dividing the total number of vehicles across the entire construction programme by the number of working days. For example, daily HGV movements for the 'Roads (EMG2 Main Site)' component is 21.09 calculated as (7,750 / 367.50).

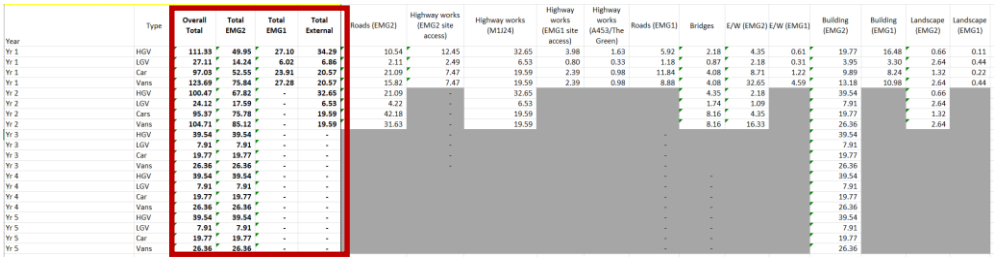
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.10 The daily number of movements is then profiled out for each year of construction based on the length of time that particular component is expected to take. To ensure a worst-case assessment, all components are set to start in Year 1, however in reality components will be staggered, for example a certain amount of earthworks is required before you can start constructing buildings.

2.11 Where a particular component is expected to end mid-way through a year i.e. 'Roads (EMG2 Main Site)' has a duration of 1.5 years, the daily values are taken in full for one of the years and divided by two for the other year, to calculate an average. This depends on each component, for example earthworks start early on in the construction programme, so daily movements for earthworks are taken in full for Year 1, whilst road construction would start later, and so daily movements are taken in full for Year 2.



2.12 Using the daily number of movements for each year of construction, total movements for works at EMG2, EMG1 and external highway works are calculated.



2.13 Within the 'Daily_Hourly Flows' tab, the average number of daily movements (one-way) for each vehicle type across each year are calculated using the values above (left hand side of table). These are then multiplied by two to derive two-way movements (right hand side of table), assuming that any vehicle arriving must then depart.

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.14 In this instance, peak construction traffic is expected to occur in Year 1, as highlighted yellow in the table above. These worst-case values have therefore been adopted when converting daily movements to peak hour.

2.15 The following percentage breakdown of arrivals and departures for each vehicle type is assumed, with the traditional network peak periods highlighted yellow. These percentages are based on historic survey work undertaken by Segro.

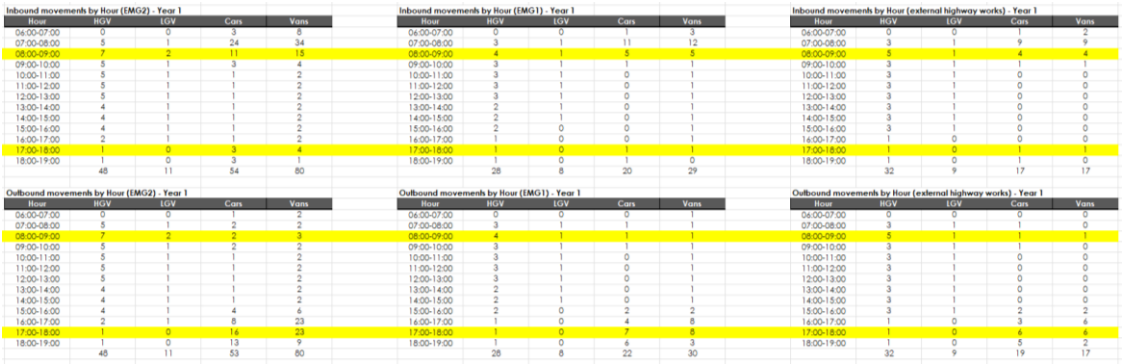
% Arrivals by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
	100%	100%	100%	100%

% Departures by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
	100%	100%	100%	100%

2.16 Hourly arrivals and departures for each vehicle type are then calculated by multiplying the daily one-way movements to the percentages above. This has been split by the various locations, EMG2, EMG1 and Off-site highway works as they will have different origin/destination points on the network.



Inbound movements by Hour (EMG2) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	3	8
07:00-08:00	5	1	24	34
08:00-09:00	7	2	11	15
09:00-10:00	5	1	3	4
10:00-11:00	5	1	1	2
11:00-12:00	5	1	1	2
12:00-13:00	5	1	1	2
13:00-14:00	4	1	1	2
14:00-15:00	4	1	1	2
15:00-16:00	4	1	1	2
16:00-17:00	2	1	1	2
17:00-18:00	1	0	3	4
18:00-19:00	1	0	3	1
	48	11	54	80

Inbound movements by Hour (EMG1) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	3
07:00-08:00	3	1	11	12
08:00-09:00	4	1	5	5
09:00-10:00	3	1	1	1
10:00-11:00	3	1	0	1
11:00-12:00	3	1	0	1
12:00-13:00	3	1	0	1
13:00-14:00	2	1	0	1
14:00-15:00	2	1	0	1
15:00-16:00	2	0	0	1
16:00-17:00	1	0	0	1
17:00-18:00	1	0	1	1
18:00-19:00	1	0	1	0
	28	8	20	29

Inbound movements by Hour (external highway works) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	2
07:00-08:00	3	1	9	9
08:00-09:00	5	1	4	4
09:00-10:00	3	1	1	1
10:00-11:00	3	1	0	0
11:00-12:00	3	1	0	0
12:00-13:00	3	1	0	0
13:00-14:00	3	1	0	0
14:00-15:00	3	1	0	0
15:00-16:00	3	1	0	0
16:00-17:00	1	0	0	0
17:00-18:00	1	0	1	1
18:00-19:00	1	0	1	0
	32	9	17	17

Outbound movements by Hour (EMG2) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	2
07:00-08:00	5	1	2	2
08:00-09:00	7	2	2	3
09:00-10:00	5	1	2	2
10:00-11:00	5	1	1	2
11:00-12:00	5	1	1	2
12:00-13:00	5	1	1	2
13:00-14:00	4	1	1	2
14:00-15:00	4	1	1	2
15:00-16:00	4	1	4	6
16:00-17:00	2	1	8	23
17:00-18:00	1	0	16	23
18:00-19:00	1	0	13	9
	48	11	53	80

Outbound movements by Hour (EMG1) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	0	1
07:00-08:00	3	1	1	1
08:00-09:00	4	1	1	1
09:00-10:00	3	1	1	1
10:00-11:00	3	1	0	1
11:00-12:00	3	1	0	1
12:00-13:00	3	1	0	1
13:00-14:00	2	1	0	1
14:00-15:00	2	1	0	1
15:00-16:00	2	0	2	2
16:00-17:00	1	0	4	8
17:00-18:00	1	0	7	8
18:00-19:00	1	0	6	3
	28	8	22	30

Outbound movements by Hour (external highway works) - Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	0	0
07:00-08:00	3	1	1	0
08:00-09:00	5	1	1	1
09:00-10:00	3	1	1	0
10:00-11:00	3	1	0	0
11:00-12:00	3	1	0	0
12:00-13:00	3	1	0	0
13:00-14:00	3	1	0	0
14:00-15:00	3	1	0	0
15:00-16:00	3	1	2	2
16:00-17:00	1	0	3	6
17:00-18:00	1	0	6	6
18:00-19:00	1	0	5	2
	32	9	19	17

2.17 From this, total arrivals and departures can be calculated. This provides the final peak hour construction movements, which are set out in the report ref EMG2-BWB-GEN-XX-RP-TR-0013 and to be used for further assessment.

Inbound movements by Hour (total development) – Year 1				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	12
07:00-08:00	11	3	44	56
08:00-09:00	17	3	19	25
09:00-10:00	11	3	5	6
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	2	2
16:00-17:00	4	2	2	2
17:00-18:00	3	1	5	6
18:00-19:00	2	1	5	1
	110	29	98	120

Outbound movements by Hour (total development) – Year 1				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	2
07:00-08:00	11	3	3	2
08:00-09:00	17	3	4	5
09:00-10:00	11	3	4	2
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	8	10
16:00-17:00	4	2	15	37
17:00-18:00	3	1	29	37
18:00-19:00	2	1	24	15
	110	29	98	120

2.18 The formulas in-built within the spreadsheet assume that vans have an occupancy rate of 3 people. It has been agreed with the TWG for vans to adopt an occupancy rate of 2 people per van. The values for vans in the tables above have therefore been multiplied by 1.5 to calculate this. These are shown in the tables at the bottom of the excel spreadsheet, with the revised total development construction vehicles shown below.

Inbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	18
07:00-08:00	11	3	44	84
08:00-09:00	17	3	19	38
09:00-10:00	11	3	5	9
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	2	3
16:00-17:00	4	2	2	3
17:00-18:00	3	1	5	9
18:00-19:00	2	1	5	2
	110	29	98	180

Outbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	3
07:00-08:00	11	3	3	3
08:00-09:00	17	3	4	8
09:00-10:00	11	3	4	3
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	8	15
16:00-17:00	4	2	15	56
17:00-18:00	3	1	29	56
18:00-19:00	2	1	24	23
	110	29	98	180

Appendix 2. Construction Traffic Flow Calculations Spreadsheet Extract

Rev 4

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	19.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	-	**32.65**	21.09	-	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	-	**6.53**	4.22	-	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	-	**19.59**	42.18	-	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	-	**19.59**	31.63	-	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	-	-		-				-				39.54			
Yr 3	LGV	**7.91**	**7.91**	-	-		-				-				7.91			
Yr 3	Car	**19.77**	**19.77**	-	-		-				-				19.77			
Yr 3	Vans	**26.36**	**26.36**	-	-		-				-				26.36			
Yr 4	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 4	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 4	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 4	Vans	**26.36**	**26.36**	-	-						-	-			26.36			
Yr 5	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 5	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 5	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 5	Vans	**26.36**	**26.36**	-	-						-	-			26.36			

TOTAL

APPENDIX 13: Covid-19 Assessment (document reference EMG2-BWB-GEN-XX-RP-TR-00014_S2-P1)

PROJECT NAME	East Midlands Gateway Phase 2 – Covid-19 Assessment		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0014	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Paul Wilson	REVISION	P1
APPROVED	Matt Corner	DATE	07/01/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 It has been agreed that the EMG2 development traffic is tested through the Pan Regional Transport Model (PRTM), a strategic highway assignment model managed by AECOM on behalf of Leicestershire County Council (LCC). The currently available version of PRTM has a base year of 2019, which pre-dates the Covid-19 pandemic. This Technical Note therefore reviews traffic data across the road network in the vicinity of the site to understand whether traffic flows have changed from 2019 to 2023. This will determine whether a sensitivity test is required that adjusts the base traffic flows in PRTM to account for changes since the Covid-19 pandemic and responds to advice contained in the Department for Transport 'TAG Unit M4 – Forecasting and Uncertainty' document, which states at Paragraph B.3.2:

> *"where model rebasing is judged not to be practical, for analysts to assess the extent of the divergence of travel patterns and volumes from pre-pandemic projections, using the best available data and evidence. If it is clear COVID-19 has had an impact on travel, this should be represented using an appropriate change in travel demand across the trip matrix, considering trip purpose and patterns as appropriate, and apply this to produce an updated core forecast."*

1.3 This Technical Note builds on previous information provided by AECOM in July 2024 (document ref: East Midlands Gateway Phase 2 – proposed approaches to COVID-19 strategic model forecast sensitivity tests). The traffic data presented in this Technical Note has been taken from the Webtris and LCC's 'C2' databases and has been reviewed by both AECOM and BWB.

2. TRAFFIC DATA ANALYSIS

Counter Locations

2.1 Traffic data has been extracted from six permanent counters located on the A453 Ashby Road, A453 Remembrance Way, M1 and A42 for various months in 2019 and 2023. The locations of the six counters are shown at **Figure 1**, which include links on the road network in the vicinity of the site.

Figure 1. Traffic Counter Locations



AECOM Data Analysis

2.2 AECOM has undertaken an assessment of the change in traffic at all six counter locations. Their assessment compared traffic during the months of April, May and June, which aligns with the months used to develop the PRTM 2019 base year model. The assessment identified neutral days in 2019 and 2023 by adopting the following filtering criteria:

- Fridays, Saturdays and Sundays;
- avoiding the week before and after easter;
- avoiding the Thursday before and all of the week of a bank holiday; and
- avoiding school holidays.

2.3 The data was converted to Passenger Car Units (PCUs) to provide an understanding of the change in both vehicle flows and types (i.e. the proportion of HGVs) which influences the capacity of junctions. The raw data is available in a separate Excel spreadsheet which has been issued to the authorities separately and can be provided upon request if required, whilst **Table 1** summarises the average peak hour and daily traffic data across all six counter locations.

Table 1. AECOM Analysis (April, May & June 2019 vs 2023 PCU flows)

Counter Location	2019 Flow	2023 Flow	Change (no.) (2023-2019)	Change (%) ((2023-2019)/2019)
AM peak hour (08:00-09:00)	29,107	28,429	-679	-2.3%
PM peak hour (17:00-18:00)	30,422	29,272	-1,150	-3.8%
Daily 24-hours (00:00-24:00)	448,565	442,725	-5,839	-1.3%

2.4 The data shows that average peak hour and daily PCU flows have reduced from 2019 to 2023 as an average across all six counter locations.

BWB Data Analysis

2.5 BWB has undertaken a separate assessment of the change in traffic flows at the four Webtris counters on the M1, A453 and A42 (i.e. excluding the Ashby Road counters, which are unable to be accessed). The assessment compared traffic during the months of March and October, as neutral survey months. However, some counters did not record data for these months, so where this was the case, September data has been analysed instead.

2.6 The data compared total vehicles on a Tuesday, Wednesday and Thursday during the weeks commencing 04/03/19, 07/03/23 and 30/09/23, 09/10/23, unless otherwise stated. Again, the raw data is available in a separate Excel spreadsheet which has been issued to the authorities separately and can be provided upon request if required, whilst **Table 2** summarises the average peak hour and daily traffic flows across all four counter locations. It should be noted that there were a small number of anomalies identified in the traffic flow data, where flows appeared exceptionally low (possibly due to a collision or roadworks). These anomalies were excluded from the calculations and are highlighted in the Excel spreadsheet.

Table 2. BWB Analysis (March & October 2019 vs 2023 total flows)

Counter Location	2019 Flow	2023 Flow	Change (no.) (2023-2019)	Change (%) ((2023-2019)/2019)
AM peak hour (08:00-09:00)	18,877	18,691	-186	-1.0%
PM peak hour (17:00-18:00)	20,511	19,175	-1,336	-6.5%
Daily 24-hours (00:00-24:00)	333,639	326,897	-6,742	-2.0%

2.7 The data shows that similar to AECOMs analysis; average peak hour and daily vehicle flows reduced from 2019 to 2023 as an average across all four Webtris counter locations.

Covid Sensitivity Assessment

2.8 The data analysed by both AECOM and BWB shows that 2023 traffic across all six counter locations on the road network is lower than what was recorded in 2019 (as both PCUs or total vehicles). The data shows the following range in the traffic flow changes:

- AM peak hour = -1.0% to -2.3% reduction in traffic
- PM peak hour = -3.8% to -6.5% reduction in traffic
- Daily 24-hour = -1.3% to -2.0% reduction in traffic

2.9 The evidence demonstrates how there has been an overall reduction in traffic flows from 2019 to 2023 across the road network in the vicinity of the site, even when accounting for HGVs proportions and PCU factors. The base flows within PRTM version 2019 should therefore provide a robust assessment of the forecast traffic levels meaning a sensitivity test that adjusts the background traffic to reflect changes since the Covid-19 pandemic should not be required and would result in reducing background traffic in the model.

3. SUMMARY

3.1 BWB and AECOM have analysed traffic data at six counter locations on the road network in the vicinity of the East Midlands Gateway Phase 2 development to understand whether flows have changed from 2019 (base model year in PRTM) to 2023. This was to determine whether the strategic modelling being undertaken using the PRTM needs to include a Covid-19 sensitivity test to account for any increases in traffic since 2019.

3.2 The key conclusions from this Technical Note are as follows:

- The Webtris and Leicestershire 'C2' counter point locations confirm that peak hour and daily traffic flows are lower in 2023 compared to 2019.
- The data shows that when applying PCU factors to the traffic data to account for HGV impacts, peak hour and daily PCU flows continue to remain lower in 2023 compared to 2019, hence there has been no significant increase in HGVs.
- Therefore, the base model traffic data in PRTM 2019 version provides a robust assessment for testing the EMG2 impacts in the model.

3.3 Consequently, the Stage 1 modelling being undertaken in PRTM should provide a robust assessment of the overall forecast traffic levels and a separate Covid-19 sensitivity test is not required in PRTM.

APPENDIX 14: Highway Safety Position Statement (document reference EMG2-BWB-GEN-XX-RP-TR-00015_S2-P1)

HIGHWAY SAFETY & ROAD CASUALTY POSITION STATEMENT

EAST MIDLANDS GATEWAY PHASE 2

PROJECT NAME	**East Midlands Gateway Phase 2 – Highway Safety & Road Casualty Position Statement**		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0015	**BWB REF**	220500
AUTHOR	Fred Summerfield	**STATUS**	S2
CHECKED	Matt Corner	**REVISION**	P1
APPROVED	Paul Wilson	**DATE**	14/03/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway employment development (EMG2). The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

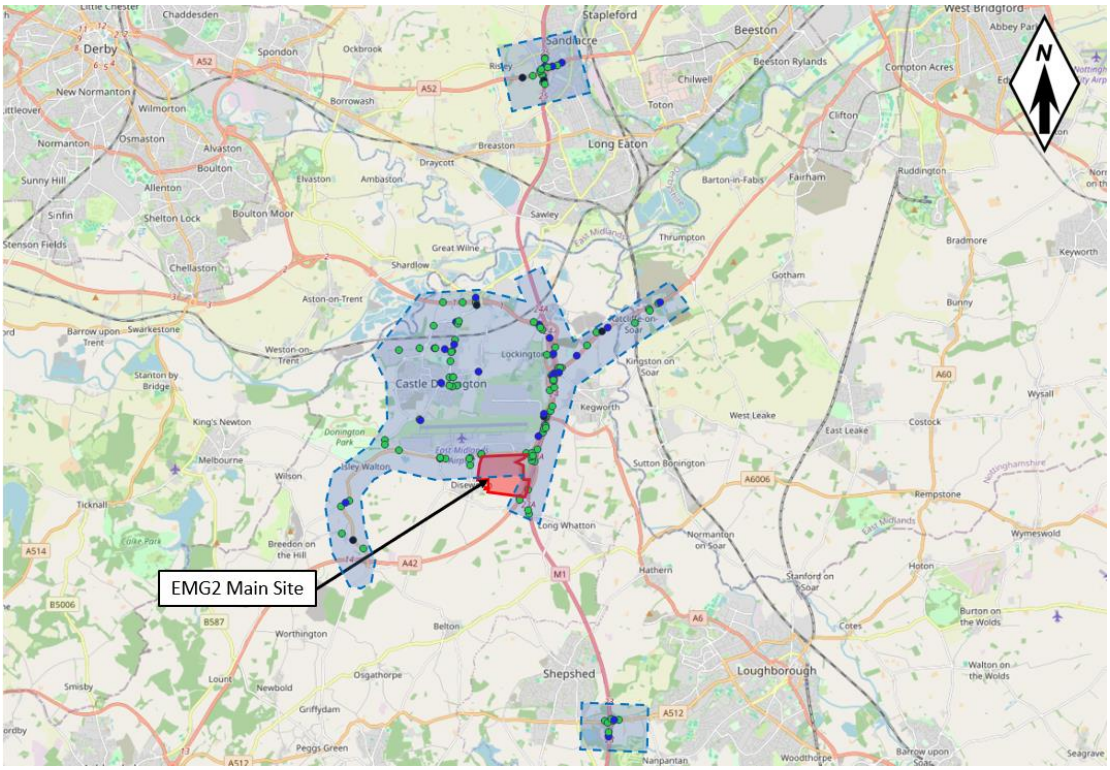
1.2 As part of the Transport Assessment process, detailed Personal Injury Collision (PIC) data has been obtained from the relevant highway authorities of key junctions and links on the surrounding highway network which form the initial proposed study area. The PIC data has been analysed to identify whether there are any existing safety issues that could be unacceptably impacted by additional traffic from the proposed development and therefore whether any further assessment is required as part of the Transport Assessment.

1.3 The assessment seeks to provide an understanding of where safety issues are already present on the network, for the EMG2 development to consider from the outset when proposing highway mitigation to minimise and improve the risk of collisions and road casualties. It follows advice contained within the National Networks National Policy Statement (March 2024), and in particular Paragraphs 4.57 to 4.61 which relate to 'road safety' and are included at **Appendix 1**.

1.4 **Figure 1** shows the study area of the highway network, which includes roads on both the Strategic Road Network and local road network. PIC data has been obtained for the latest six-year period between 1 January 2019 and 23 October 2024 A total of 175 PICs were recorded within the study area, of which 125 were classified as slight, 42 as serious and 8 as fatal. The raw PIC data is included in the following appendices:

- **Appendix 2** – Leicestershire County Council network
- **Appendix 3** – M1 Junction 25 (Derbyshire)
- **Appendix 4** – A453 Remembrance Way (Nottinghamshire)

Figure 1. Personal Injury Collision Study Area



1.5 **Table 1** summarises the number of PICs that have occurred each year since 2019.

Table 1. Number of Personal Injury Collisions by year

	2019	2020	2021	2022	2023	2024
Slight	21	9	26	31	19	19
Serious	2	8	8	7	9	8
Fatal	0	2	0	0	3	3
Total	**23**	**19**	**34**	**38**	**31**	**30**

1.6 The details show that there has been a relatively consistent number of PICs during each of the years assessed, equating to 29 per annum. There was a slight reduction in PICs during 2020 possibly due to the Covid-19 Pandemic and significant reductions in traffic flows and journeys during that time.

1.7 Section 2 of this Technical Note analyses the PIC data individually at the following locations/junctions, seeking to understand whether there are any existing safety problems that need assessing in further detail within the Transport Assessment:

- Junctions 1 & 2) Site frontage and A453/Hunter Road Roundabout
- Junction 3) Finger Farm Roundabout
- Junction 4) A453/EMG1 access junction

- Junction 5) M1 Junction 24
- Junction 6) A453/East Midlands Airport Signal Junction
- Junction 7) A453/Grimes Gate Priority Junction
- Junction 8) A453/The Green Priority Junction
- Junction 9) A453/East Midlands Airport Roundabout
- Junction 10) A453/Walton Hill Signal Junction (Leicestershire)
- Junction 11) A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout
- Junction 12) M1 Junction 23
- Junction 13) A50 Junction 1
- Junction 14) M1 Junction 25
- Junction 15) Station Road/Broad Rushes Roundabout
- Junction 16) A453/Kegworth Road dumbbell Roundabouts
- Junction 17) A453/Barton Lane/West Leake dumbbell Roundabouts

2. PERSONAL INJURY COLLISION DATA ANALYSIS

Junctions 1 & 2: Site Frontage and A453/Hunter Road Roundabout

2.1 **Figure 2** shows an extract of the PIC records across the site frontage and at the A453/Hunter Road roundabout. The records confirm there have been no PICs within this location over the latest 6-year period. Therefore, it can be concluded that there are no existing safety problems at this location and no further assessment is required.

Figure 2. Personal Injury Collisions at the site frontage and A453/Hunter Road Roundabout



J3 – Finger Farm Roundabout

2.2 **Figure 3** shows an extract of the PIC records at and in the vicinity of Finger Farm roundabout confirming that 11 PICs have been recorded over the latest 6-year period, 10 of which were classified as slight and one as serious. **Table 2** provides a summary of each recorded PIC.

Figure 3. Personal Injury Collisions at Finger Farm Roundabout

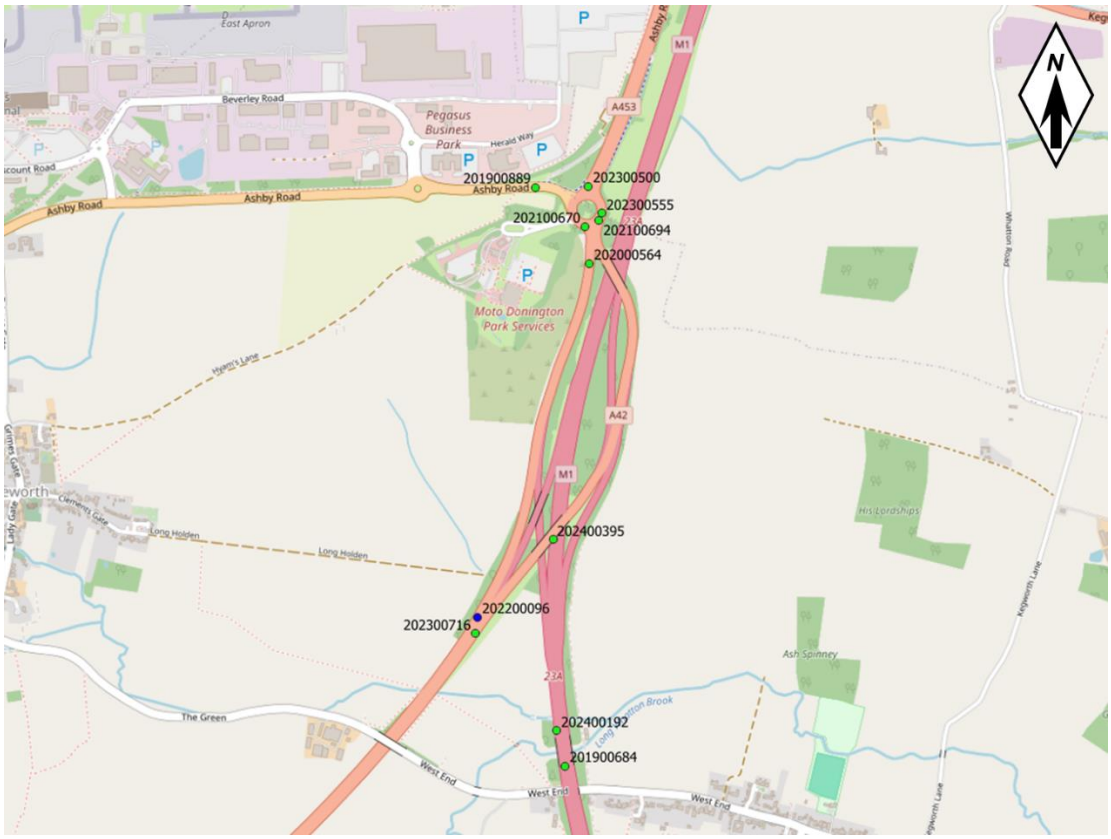


Table 2. Personal Injury Collision Data Summary (Finger Farm Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900889	17/09/2019	Fine / Dry	Slight	V1, V3, V4, V5 and V6 were traveling westbound on the A453. V2 was traveling eastbound on the A453 causing rear end shunt collisions
201900684	29/06/2019	Fine / Dry	Slight	V1 was travelling ahead on the M1 northbound and V2 was changing lanes to the right
202000564	19/03/2020	Wet / Damp	Slight	V1 (car) was parked on the M1/A42 slip road and V2 (7.5T goods vehicle) was overtaking on the off/side
202100670	03/09/2021	Fine / Dry	Slight	V1 was entering the roundabout from the M1/A42 slip road heading towards the A453 westbound when it collided into the kerb. The collision occurred during hours of darkness, but no other vehicles were involved
202100694	10/09/2021	Wet / Damp	Slight	V1 was travelling on the roundabout circulatory from the A453 (west) to the A42 on-slip. V2 was travelling from the same direction towards Donington Park services and collided with V1 which was held up
202200096	30/01/2022	Fine / Dry	Serious	V2 was travelling northbound on the A42 off slip road to the A453. V1 was traveling in the same direction and collided with V2 when changing lanes to the left
202300500	09/06/2023	Fine / Dry	Slight	V1 was changing lane heading northbound on the A453 and collided with V2 which joined the roundabout from the A453 northbound entry
202300555	07/07/2023	Fine / Dry	Slight	V1 was travelling southbound to the A42 and collided with V2 which was changing lane and travelling in the same direction
202300716	16/08/2023	Fine / Dry	Slight	V2 and V3 were travelling southbound on the M1 J23A on slip. V1 was travelling in the same direction and collided when overtaking a vehicle on its offside
202400192	23/02/2024	Fine / Dry	Slight	V1 was travelling northbound on the M1 approaching J23A and V2 was travelling in the same direction and collided when overtaking a vehicle on its offside
202400395	06/05/2024	Fine / Dry	Slight	V1 was travelling northbound on the M1 and lost control

2.3 The details show that the 11 recorded PICs occurred at different locations of the roundabout and on approach to J23A from the M1 and M42. The PICs were caused due to a number of reasons (rear end shunts, overtaking, lane changing and driver error). There have been no clusters of PICs occur at any specific location of the roundabout or the network in the vicinity of M1J23A and therefore given this is a junction on part of the Strategic Road Network that accommodates a high volume of traffic, it is considered that there are no significant safety problems at this location and no further assessment will be undertaken in the Transport Assessment.

J4 – A453/EMG1 Access Junction

2.4 **Figure 4** shows a detailed extract of the PIC records at the A453/EMG1 signal gyratory confirming there have been seven recorded PICs over the latest 6-year period. Of the seven recorded PICs, three were classified as slight, two were classified as serious and one was classified as fatal. **Table 3** provides a summary of each recorded PIC.

Figure 4. Personal Injury Collisions at A453/EMG1 Access Junction

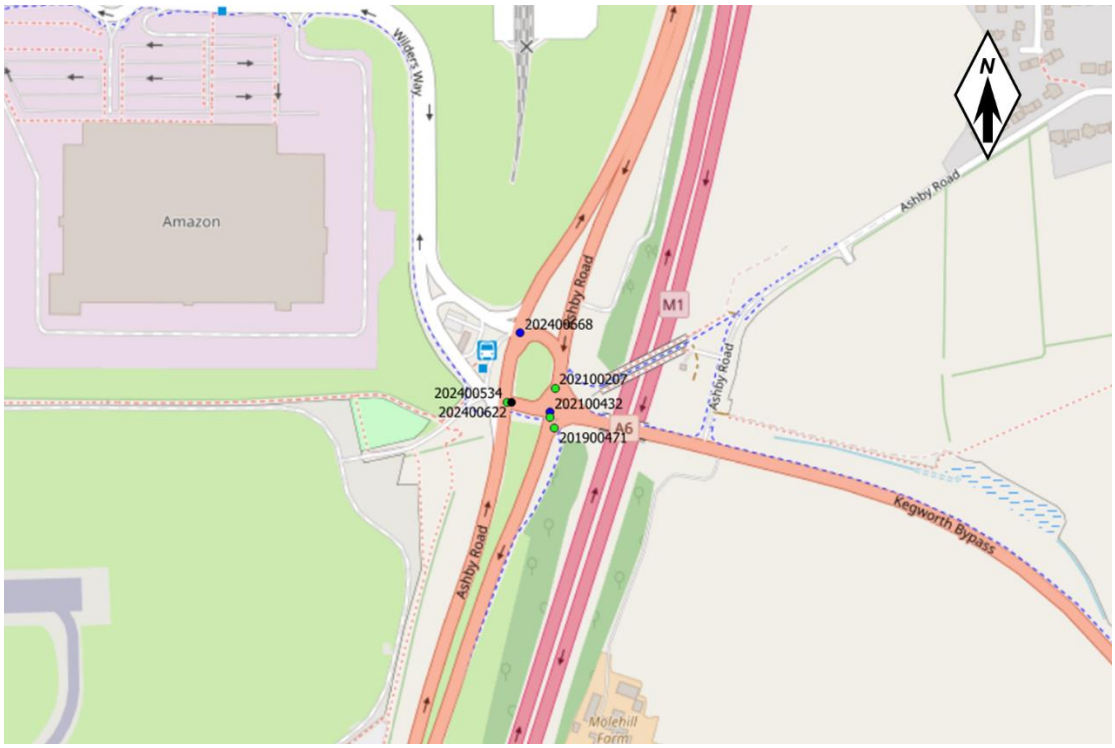


Table 3. Personal Injury Collision Data Summary (A453/EMG1 Access Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900471	13/052019	Fine / Dry	Slight	V1 and V2 were entering the roundabout from the A6 to the A453 north and V3 was mid roundabout travelling ahead from the A453 north to A453 south
202100207	08/04/2021	Fine / Dry	Slight	V1 was leaving the roundabout travelling from the A453 north to the A453 south, whilst V2 was leaving the roundabout turning right from EMG1 to the A453 south
202100432	16/06/2021	Fine / Dry	Serious	V1 was travelling ahead at the roundabout from the A453 north to the A453 south and V2 and V3 were entering the roundabout from the A6 to EMG1
202400038	13/01/2024	Fine / Dry	Slight	V1 was on the roundabout circulatory travelling south on the A453. V2 was also mid-junction on the roundabout travelling from the A6 to EMG1
202400534	12/06/2024	Fine / Dry	Slight	V1 was mid junction slowing down and travelling from the A453 south to A453 north. V2 was also mid junction travelling in the same direction from the A453 south to A453 north causing a rear end shunt collision,
202400622	05/07/2024	Fine / Dry	Fatal	V1 was travelling northbound on the A453 and collided with V2 which was travelling from the A6 to EMG1 but held up on the roundabout.
202400668	21/07/2024	Fine / Dry	Serious	V1 was entering the roundabout travelling from EMG1 to the A6. V2 was travelling from the A453 south to A453 north

2.5 The majority of the seven PICs were a result of a collision due to conflicting turning movements at the junction, one of which resulted in fatal injuries (accident number: 202400622). The majority of the PICs were due to turning movements between drivers travelling ahead on the A453 and others travelling from EMG1 or the A6, with a higher number of PICs occurring on the gyratory circulatory close to the A6 entry. With this in mind and given one of the PICs resulted in fatal injuries, further analysis of this junction, and in particular the movement from the A6 to EMG1, will be undertaken in the Transport Assessment. This will provide a greater understanding as to whether there is an issue with visibility to the signals or the intergreen time, as the movements causing collisions should be operating under different phases.

2.6 The proposed highway works include for some changes to the layout of the junction by providing two right turning lanes from the A453 southbound into EMG1. These works present an opportunity to make changes to the traffic signals to improve safety of the junction and the further analysis within the Transport Assessment discussed above will inform this work.

J5 – M1 J24

2.7 **Figure 5** shows a detailed extract of the PIC records at M1 Junction 24 confirming there have been 16 recorded PICs over the latest 6-year period. Of the 22 recorded PICs, 16 were classified as slight and 6 were classified as serious, with no fatal collisions. **Table 4** summarises each of the recorded PICs in further detail.

Figure 5. Personal Injury Collisions at M1 Junction 24

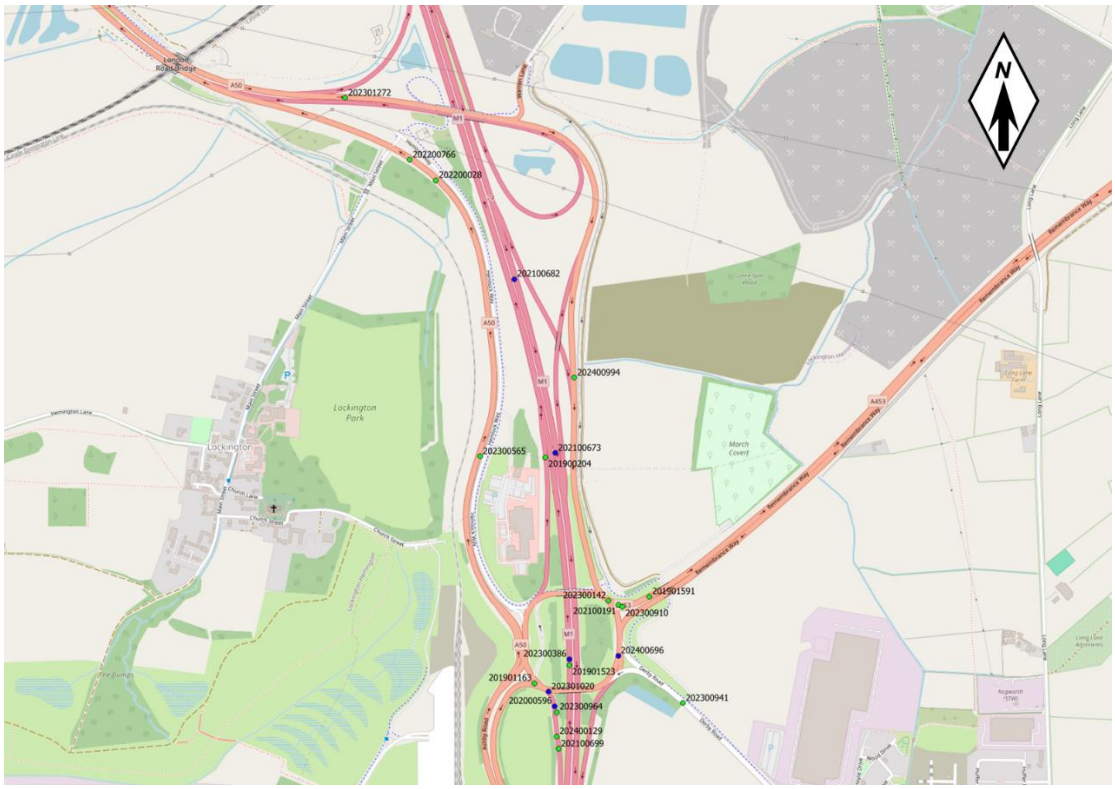


Table 4. Personal Injury Collision Data Summary (M1 J24)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900204	06/02/2019	Wet / Damp	Slight	V1, V2 and V4 were approaching the junction from the M1 northbound exit slip. V3 was leaving the motorway from the same direction causing a rear end shunt collision
201901163	22/10/2019	Fine / Dry	Slight	V1 was leaving the roundabout travelling to the A50. V2 was also leaving the roundabout to the A50 but changed lanes causing a collision
201901523	23/02/2019	Fine / Dry	Slight	V1 and V2 were travelling southbound on the M1 mainline away from the junction and collided
201901591	22/10/2019	Fine / Dry	Slight	V1 and V2 were travelling from the A453 south to the A453 north and collided (exact location unknown when collision occurred)

202000596	05/08/2020	Fine / Dry	Serious	V1 was approaching the junction on the M1 northbound exit slip. V2, V3 and V4 were approaching the junction from the same direction but held up causing a rear end shunt collision
202100191	12/04/2021	Fine / Dry	Slight	V1 was leaving the roundabout turning left from M1 southbound off-slip to the A453 Remembrance Way when a collision occurred. This was the only vehicle involved
202100673	03/09/2021	Fine / Dry	Serious	V1 and V2 were approaching the junction on the M1 mainline heading southbound. V3 was also approaching the junction from the same direction and changing lane when a collision occurred
202100682	06/09/2021	Fine / Dry	Serious	V1 and V2 were going ahead on the M1 southbound approaching junction 24 when a collision occurred
202100699	11/09/2021	Fine / Dry	Slight	V1 and V2 were leaving the M1 on the northbound off-slip. The exact reason for the collision is unknown but it occurred away from the roundabout
202200028	15/01/2022	Frost / Ice	Slight	V1 and V2 were going ahead south to northwest on A50 northbound slip road when a collision occurred
202200766	28/06/2022	Fine / Dry	Slight	V2 was going ahead and V2 was overtaking going westbound on the A50 when a collision occurred
202300142	18/02/2023	Fine / Dry	Slight	V1 was leaving the roundabout travelling to the A453 Remembrance Way. There was no other vehicle involved
202300386	25/05/2023	Fine / Dry	Serious	V1 and V2 were both travelling northbound on the M1 mainline away from the junction
202300565	10/07/2023	Wet / Damp	Slight	V1 (goods vehicle) was travelling northbound on the A50 and was changing lanes to the left and collided with V2 (car) travelling in the same direction
202300910	25/09/2023	Fine / Dry	Slight	V1 was leaving the roundabout travelling from the M1 southbound off-slip to the A453 Remembrance Way.V2 was travelling in the same direction and changed lane causing a collision
202300941	04/10/2023	Fine / Dry	Slight	V1 and V2 were both travelling northwestbound on Derby Road approaching the junction from a distance.
202300964	06/10/2023	Wet / Damp	Slight	V1 and V2 were travelling on the northbound off-slip towards the roundabout
202301020	22/10/2023	Fine / Dry	Serious	V1 was on the roundabout travelling to the A50. V2 (Motorcycle) was entering the roundabout, travelling ahead from the A453 south to the M1 northbound
202301272	22/12/2023	Wet / Damp	Slight	V1 was traveling on the A50 slip road to the M1 southbound when a collision occurred

202400129	29/01/2024	Fine / Dry	Slight	V1 and V2 were approaching the junction from the M1 northbound off-slip. V1 was held up causing a rear end shunt collision with V1
202400696	31/07/2024	Fine / Dry	Serious	V1 was leaving the roundabout travelling to the M1 southbound. V2 was turning right from the M1 southbound to the A453 Remembrance Way but collided with V1 that was changing lanes.
202400994	18/10/2024	Fine / Dry	Slight	V1 was going ahead and V2 was changing lanes to the right on the A50 M1 slip road when a collision occurred

2.8 The details show that a cluster of PICs has formed along the M1 northbound off-slip. There appear to be no other locations where clusters of PICs have occurred. A total of six PICs have occurred on the M1 northbound off-slip, which were predominantly due rear end shunt type collisions. Whilst the majority of EMG2 development traffic travelling northbound on the M1 is likely to exit at Junction 23a at Finger Farm given this is the quickest route, further assessment of highway safety on this arm will be undertaken in the Transport Assessment for completeness.

2.9 The scheme is proposing a significant improvement to M1 junction 24 by providing a free-flow link from the M1 northbound to A50 westbound. This is forecast to improve capacity and remove queuing from the M1 mainline and will transfer a significant number of vehicles away from the current slip road onto the new link, thus reducing queuing on the slip road. This work clearly has the potential to positively improve safety of the strategic road network.

2.10 Furthermore, during the Public Consultation events, comments were raised regarding potential safety issues on the A50 northbound weaving from Junction 24. The PIC records confirm that there has been a single isolated PIC occur on this section of the network during the study period, which was classified as slight. Whilst this was a result of a goods vehicle changing lanes, it shows that the number of PICs recorded on this part of the network are low and there are no on-going issues or clusters of PICs that suggest there are any significant safety problems at this location.

J6 – A453/East Midlands Airport Signal-Controlled Junction

2.11 **Figure 6** shows a detailed extract of the PICs that have been recorded at the A453/East Midlands Airport signal-controlled junction confirming there has been three recorded PIC over the latest 6-year period. Two of the PICs were classified as slight and the remaining PIC was classified as fatal. **Table 5** provides a summary of the recorded PICs.

Figure 6. Personal Injury Collisions at A453/East Midlands Airport Junction

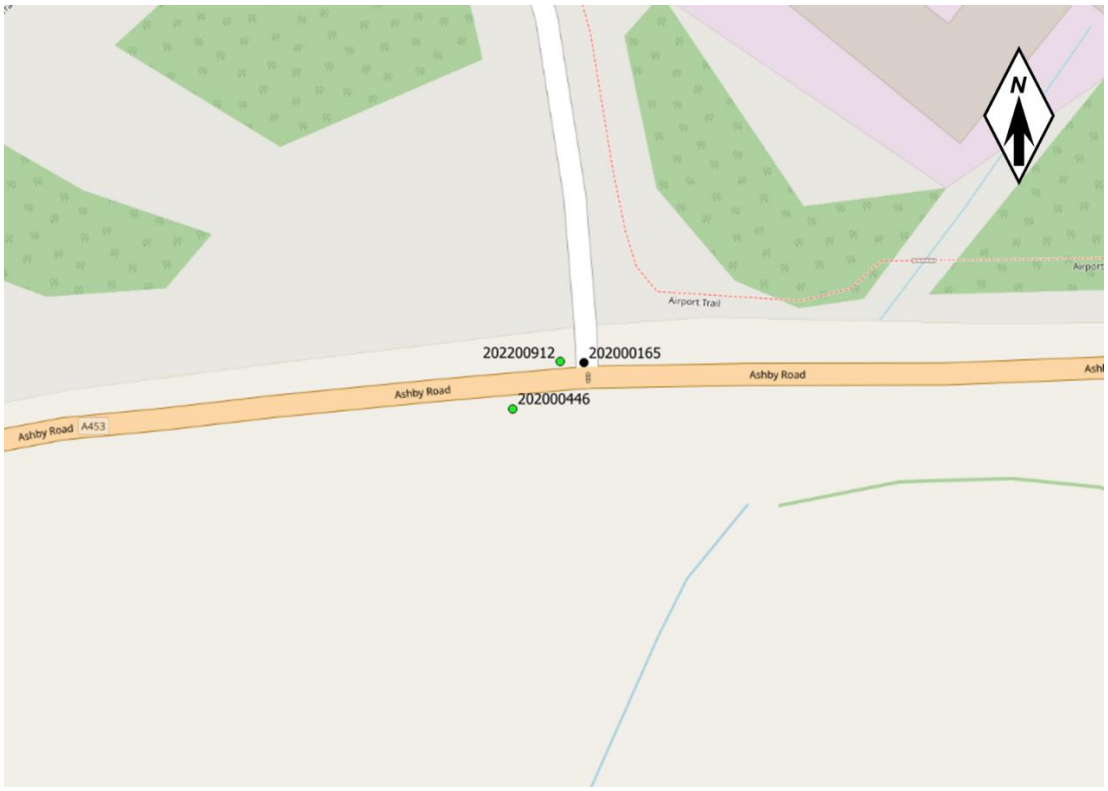


Table 5. Personal Injury Collision Data Summary (A453/East Midlands Airport Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000165	21/01/2020	Wet / Damp	Fatal	V1 was turning right from the A453 into the airport and V2 was travelling eastbound on A453
202000446	25/07/2020	Fine / Dry	Slight	V1 was travelling westbound on the A453 and V2 was changing lanes travelling in the same direction
202200912	26/10/2022	Wet / Damp	Slight	V1 was turning right from the A453 into the airport and V2 was travelling eastbound on the A453.

2.12 The details show that of the three PICs, two were due to a vehicle turning right from the A453 into the airport colliding with an eastbound travelling vehicle. The right turn into the airport operates from a separately signalled green phase, with eastbound drivers held on a red signal in the same stage. As the junction is signal controlled and these movements occur in different stages, right turning vehicles are not required to give way to eastbound traffic. It therefore appears that one of the drivers has contravened a red signal causing the collision.

2.13 Whilst one of these PICs was fatal, it occurred during wet conditions and invovled a heavy goods vehicle. When considering there have only been two PICs occur due to

this manoeuvre over a 6-year period, both during wet weather conditions, it is considered that there are no significant safety problems at this junction that warrant further consideration in the Transport Assessment.

2.14 In addition, whilst there are no existing safety problems, the proposals involve installing a new pedestrian crossing at the junction and therefore further assessment of the location and type of crossing from an operational and safety perspective will be undertaken in the Transport Assessment.

J7 – A453/Grimes Gate Priority-Controlled Junction

2.15 **Figure 7** shows a detailed extract of the PIC records at the A453/Grimes Gate junction confirming there have been two recorded PICs over the latest 6-year period. Both the PICs were classified as slight. **Table 6** provides a summary of the recorded PICs.

Figure 7. Personal Injury Collisions at A453/Grimes Gate Junction

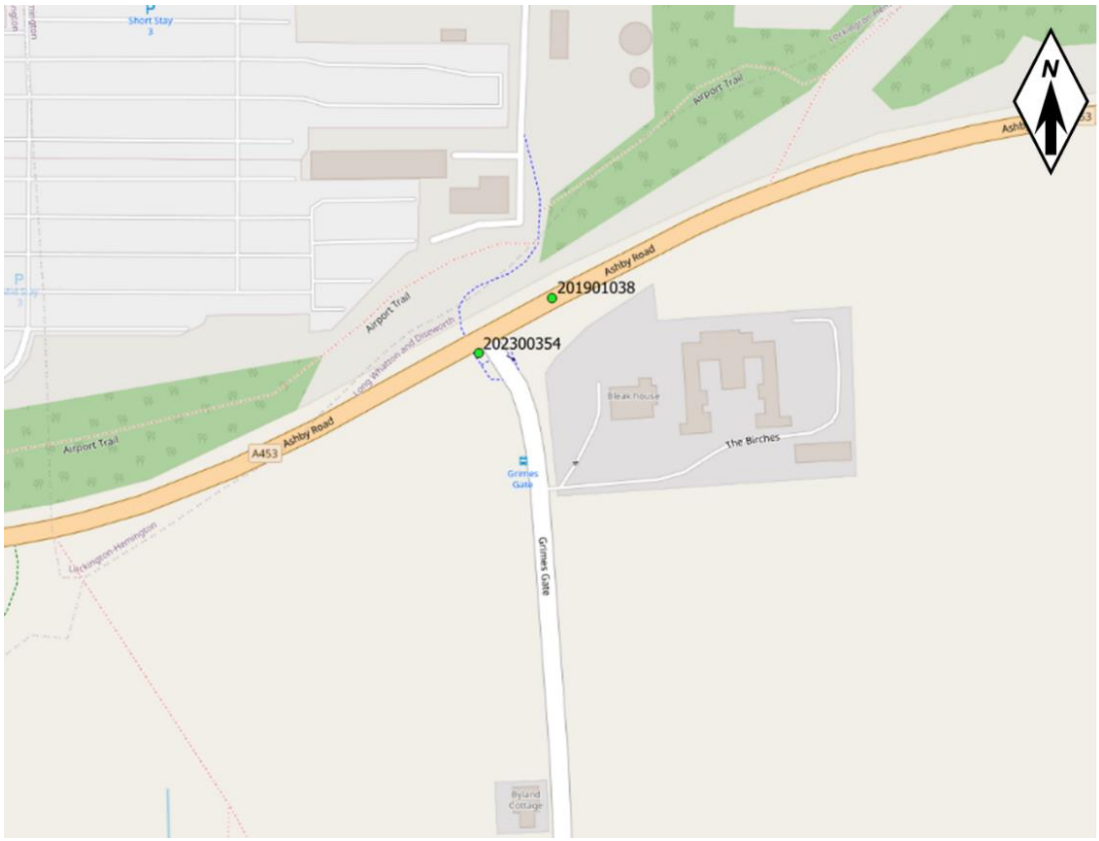


Table 6. Personal Injury Collision Data Summary (A453/Grimes Gate Priority-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901038	17/11/2019	Wet / Damp	Slight	V1 and V2 were travelling northeastbound on the A453. V1 attempted to overtake V2 causing a collision
202300354	15/05/2023	Fine / Dry	Slight	V1 (Motorcycle) was travelling northeastbound on the A453. V2 was travelling in the same direction resulting in a rear end shunt

2.16 The details show that there have been two recorded PICs, although only one was at the junction itself. With this and given both PICs were classified as slight and appear to be isolated incidents occurring 3.5 years apart, it is considered that there are no significant safety problems at this junction and no further assessment of highway safety will be undertaken within the Transport Assessment.

J8 – A453/The Green Priority-Controlled Junction

2.17 **Figure 8** shows a detailed extract of the PIC records at the A453/The Green junction confirming there have been four recorded PICs over the latest 6-year period. All the four PICs were classified as slight. **Table 7** provides a summary of the recorded PICs.

Figure 8. Personal Injury Collisions at A453/The Green Junction



Table 7. Personal Injury Collision Data Summary (A453/The Green Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901277	27/06/2019	Fine / Dry	Slight	V1 was turning right from the A453 into The Green. V2 was travelling westbound on the A453 and V3 was waiting to turn right from The Green to the A453 east
202200634	02/08/2022	Wet / Damp	Slight	V1 was attempting to stop when travelling eastbound on the A453. V2 and V3 were travelling in the same direction and collided with V1.
202200862	10/10/2022	Wet / Damp	Slight	V1 (Goods 7.5 Tonnes MGW) was travelling eastbound on the A453. V2 was waiting to turn right from the A453 into The Green
202400733	13/08/2024	Fine / Dry	Slight	V1 was turning right from the A453 into The Green. V2 was travelling westbound on the A453 and collided into the rear

2.18 The details show all four PICs were due to right turning movements from the A453 into The Green either through side on collisions with opposing vehicles or rear end shunts. All four collisions were classified as slight and occurred in daylight conditions, meaning there appear to be no issues caused during hours of darkness. Two of the four PICs

occurred during wet conditions. The junction is located within a dip on the A453 with approaching vehicles travelling downhill from both sides. Looking at historic Google Street View records, the tourist sign to the 'Queen's Head' highlighting a left turn into The Green from the east was obstructed by overgrown vegetation until 2023 and since then there have been no PICs occurring through westbound travelling vehicles. There appear to have been improvements to the warning signs for eastbound vehicles between 2017 and 2020. Whilst improvements to signage and visibility have occurred over the last 5 years, given that four PICs have occurred due to right turning movements, further assessment of highway safety will be undertaken in the Transport Assessment at this location.

J9 – A453/East Midlands Airport Roundabout

2.19 **Figure 9** shows a detailed extract of the PIC records at the A453/East Midlands Airport roundabout confirming there has been a single recorded PIC over the latest 6-year period, which was classified as slight. **Table 8** provides a summary of the recorded PIC.

Figure 9. Personal Injury Collisions at A453/East Midlands Airport Junction



Table 8. Personal Injury Collision Data Summary (A453/East Midlands Airport Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202200609	25/07/2022	Wet / Damp	Slight	V1 was leaving the roundabout travelling eastbound on A453 and lost control

2.20 The details show that there has only been one recorded PIC at the A453/East Midlands Airport roundabout and invovled a single vehicle that lost control. The PIC was classified as slight. With the low number of PICs at the junction, it is considered that there are no significant highway safety impacts and no further assessment will be undertaken within the Transport Assessment.

J10 – A453/Walton Hill Signal-Controlled Junction

2.21 **Figure 10** shows a detailed extract of the PIC records across the A453/Walton Hill signal-controlled junction confirming there have been two recorded PICs over the latest 6-year period both of which were classified as slight. **Table 9** provides a summary of the recorded PICs.

Figure 10. Personal Injury Collisions at A453/Walton Hill Signal-Controlled Junction



Table 9. Personal Injury Collision Data Summary (A453/Walton Hill Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202100382	02/06/2021	Fine / Dry	Slight	V1 and V3 were travelling southbound around a left hand bend and collided with V2 which was travelling northbound
202100781	03/10/2021	Fine / Dry	Slight	V1 was turning right from Walton Hill into the SuperBike Factory and collided with V2 which was turning right from the SuperBike Factory onto Walton Hill

2.22 The details show that there have only been two recorded PICs at the A453/Walton Hill junction both of which were classified as slight. The causation of the PICs was due to turning movements from different arms. With this and given the low number of PICs at the junction over a 6-year period, it is considered that there are no significant highway safety impacts, and no further assessment will be undertaken within the Transport Assessment.

J11 – A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout

2.23 **Figure 11** shows a detailed extract of the PIC records at the A42 Junction 14 on-slip/Top Brand/Gelscoe Lane roundabout and on approach from the A453. It confirms there have been three recorded PICs over the latest 6-year period with two PICs being slight and one as fatal in severity. **Table 10** provides a summary of the recorded PICs

Figure 11. Personal Injury Collisions at A42 Junction 14 on-slip/Top Brand/Gelscoe Lane Roundabout

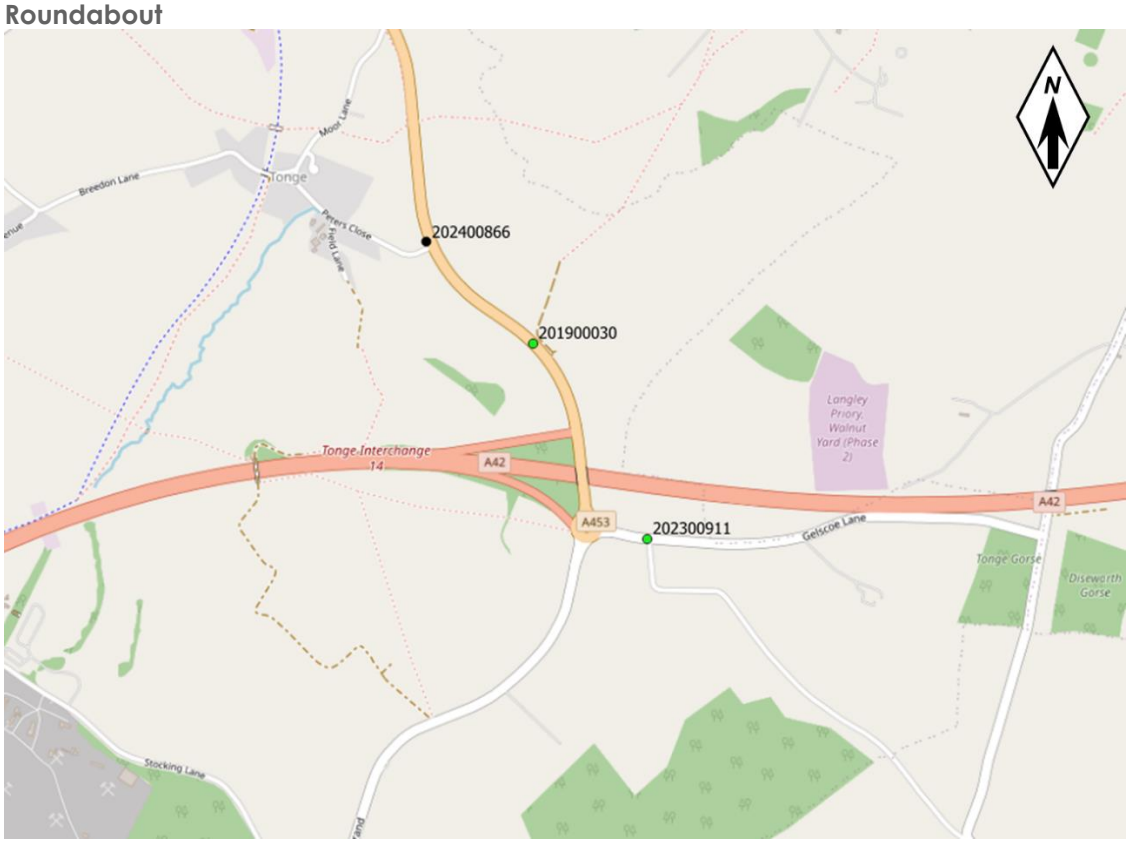


Table 10. Personal Injury Collision Data Summary (A453/Walton Hill Signal-Controlled Junction)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900030	16/01/2019	Wet / Damp	Slight	V1 was travelling northbound on the A453 around the left-hand bend and collided with V2 which was travelling southbound on the A453
202300911	29/09/2023	Fine / Dry	Slight	V2 was joining Gelscoe Lane after travelling through the roundabout in the eastbound direction and collided with V1 which was turning left at the roundabout from Top Brand to the A42
202400866	17/09/2024	Fine / Dry	Fatal	V1 was travelling northbound on the A453 and lost control. No other vehicles were involved

2.24 The details show that there have been three recorded PICs on the network in the vicinity of the A42/Top Brand/Gelscoe Lane junction. All three was isolated incidents with two classified as slight. There has been a single fatality occur on 17/09/24 which involved a single vehicle travelling northbound on the A453 and appears to be due to loss of control. Whilst regrettable, this is the only PIC that has occurred at this location during the 6-year period and so it is considered in isolated incident. Consequently, there are

considered to be no significant highway safety issues at this location and no further assessment of highway safety will be undertaken within the Transport Assessment.

J12 – M1 Junction 23

2.25 **Figure 12** shows a detailed extract of the PIC records at M1 Junction 23 confirming there have been nine recorded PICs over the latest 6-year period, seven of which were classified as slight and the remaining two as serious. **Table 11** summarises each of the recorded PICs in further detail.

Figure 12. Personal Injury Collisions at M1 Junction 23



Table 11. Personal Injury Collision Data Summary (M1 Junction 23)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000492	09/02/2020	Wet / Damp	Slight	V1 and V2 were approaching the junction from Ashby Road East and collided whilst stopping at the junction
202000881	10/11/2020	Fine / Dry	Slight	V1 and V2 collided when attempting to decelerate when approaching the roundabout from the A512
202100046	25/01/2021	Frost / Ice	Slight	V1 and V2 collided when decelerating on approach to the junction from the M1 northbound off-slip
202100568	30/07/2021	Wet / Damp	Slight	V1 was travelling eastbound on the A512 away from the roundabout and lost control. No other vehicle was involved.
202200748	06/09/2022	Wet / Damp	Slight	V1 was changing lane on the M1 northbound off-slip and collided with V2 travelling in the same direction.
202201031	20/11/2022	Fine / Dry	Slight	V1 was changing lane on the roundabout travelling to the A512 and collided with V2 which was travelling in the same direction
202400235	15/03/2024	Fine / Dry	Serious	V1 was changing lanes on the M1 northbound off-slip and collided with V2 travelling in the same direction
202400297	04/04/2024	Fine / Dry	Slight	V1 was exiting the M1 onto the northbound off-slip and collided with V2 travelling in the same direction
202400698	01/08/2024	Fine / Dry	Serious	V1 (goods vehicle over 3.5T) was held up approaching the roundabout travelling from the A512 to Ashby Road East and collided with V2 entering the roundabout from north to south

2.26 The details show that of the nine recorded PICs, three were recorded at the A512 (albeit one was travelling away from the junction), four PICs were recorded on the M1 northbound off slip, whilst the remaining three PICs occurred on the circulatory and Ashby Road East arm. Two of the PICs were due to vehicles changing lanes on the M1 northbound off-slip, however this arm would not be impacted by the proposed development. Overall, there is no specific location where a cluster of PICs have occurred and the details show a mix of causes with no specific trends. On this basis and given this is a junction on the Strategic Road Network that carries a significant volume of traffic, it is considered that there are no on-going highway safety issues at this junction and no further assessment will be undertaken in the Transport Assessment.

J13 – A50 Junction 1

2.27 **Figure 13** shows a detailed extract of the PIC records at A50 Junction 1 confirming there have been five recorded PICs over the latest 6-year period, three of which were classified as slight, one as serious and one as fatal. **Table 12** summarises each of the recorded PICs in further detail.

Figure 13. Personal Injury Collisions at A50 Junction 1

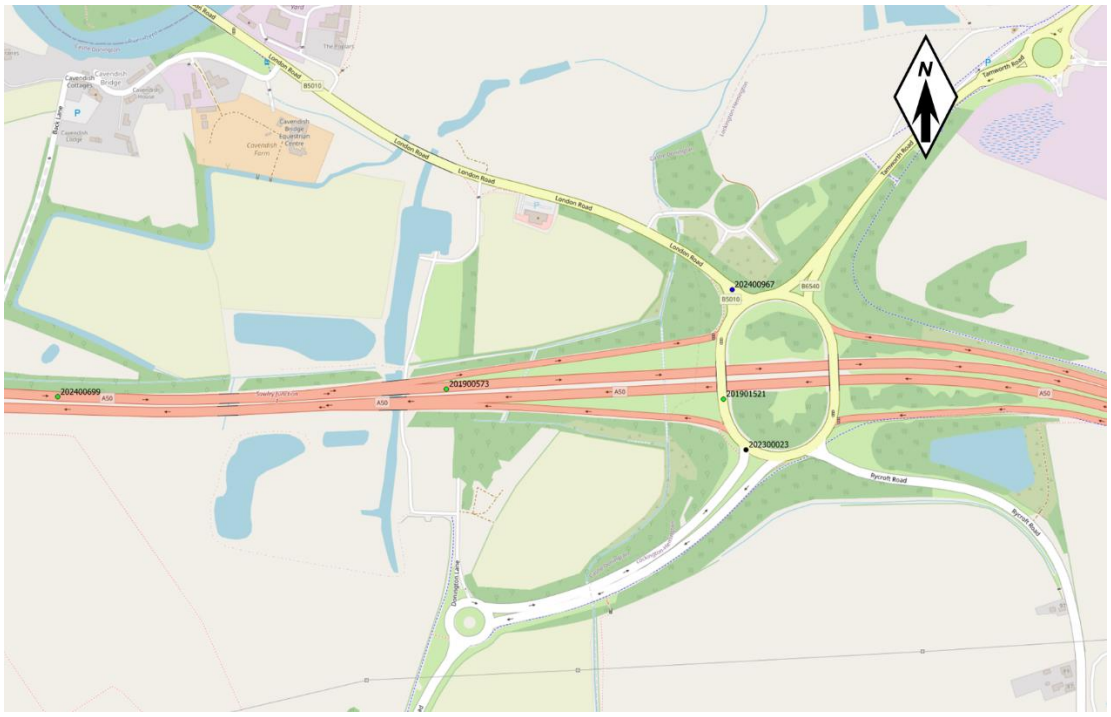


Table 12. Personal Injury Collision Data Summary (A50 Junction 1)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201900573	19/03/2019	Fine / Dry	Slight	V1 was moving into the left/nearside lane travelling eastbound on the A50 mainline. No other vehicles were invovled
201901521	18/02/2019	Fine / Dry	Slight	V1 and V2 collided when travelling north on the roundabout circulatory
202300023	09/01/2023	Fine / Dry	Fatal	V1 was travelling to the A50 westbound on-slip and collided with V2 which was joining the roundabout from Trent Lane
202400699	30/07/2024	Fine / Dry	Slight	V1 was travelling eastbound on the A50 main line away from the junction. No other vehicles were involved
202400967	15/10/2024	Fine / Dry	Serious	V1 was changing lane when approaching the roundabout from London Road and collided with V2 travelling in the same direction

2.28 The details show that all five PICs occurred at different parts of the junction, or on the A50 mainline. A number of the PICs occurred through driver error when changing lanes. Whilst there has been a single fatal collision close to the Trent Lane entry to the roundabout, this appears to be an isolated incident. Furthermore, there is an approved scheme to signalise this arm of the junction, which would negate the need for drivers to give-way at this location and therefore remove conflicting movements. Overall, it is

considered that there are no significant safety issues and therefore no further assessment will be undertaken at this junction within the Transport Assessment.

J14 – M1 Junction 25

2.29 **Figure 14** shows a detailed extract of the PIC records at M1 Junction 25 confirming there have been 18 recorded PICs over the latest 6-year period, 12 of which were classified as slight, four were classified as serious and two fatal. **Table 13** summarises each of the recorded PICs in further detail.

Figure 14. Personal Injury Collisions at M1 Junction 25

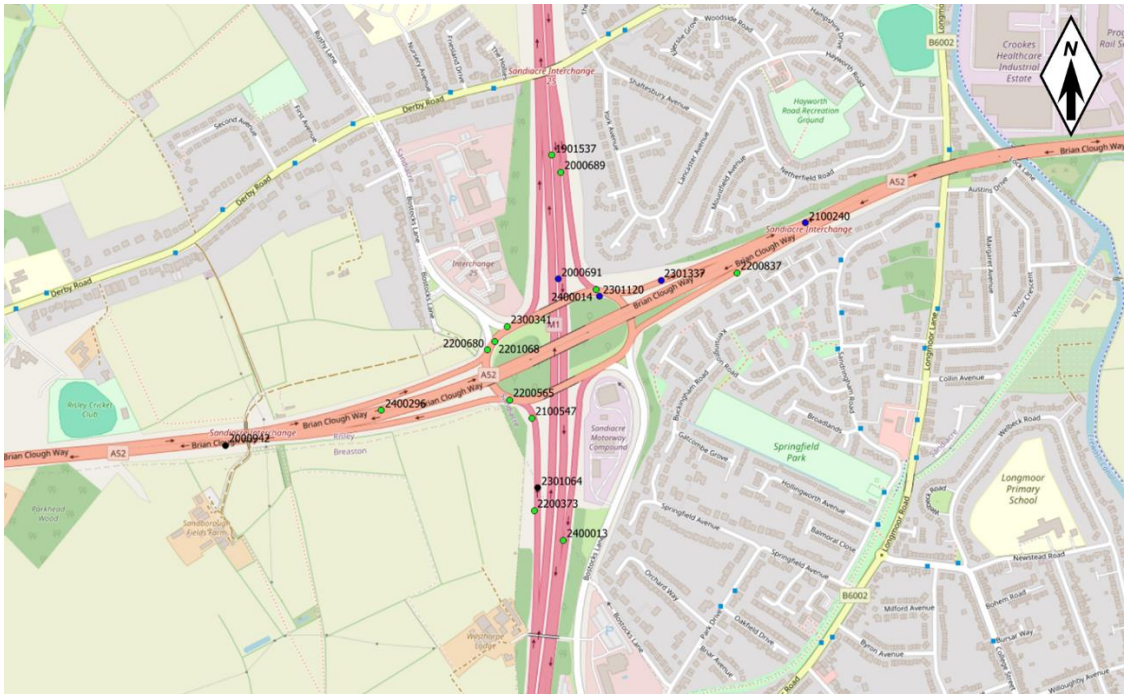


Table 13. Personal Injury Collision Data Summary (M1 J25)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
1901537	02/10/2019	Fine / Dry	Slight	V1 was changing lanes travelling on the A52 northbound on-slip and collided with V2 travelling in the same direction
2000689	20/05/2020	Fine / Dry	Slight	V1 attempts to move from lane 2 into lane 1 to leave the motorway and between two HGVs, misses the exit and collides with the barrier
2000691	18/06/2020	Wet / Damp	Serious	V1 was travelling on the M1 southbound mainline and lost control in lane 4 and collided with the central reservation causing it veer across the motorway and into V2
2000942	22/08/2020	Fine / Dry	Fatal	V1 was travelling westbound on the A52 at 16:55 and veered to nearside for unknown reasons, lost control and collided with a tree

2100240	24/10/2020	Raining / Flood	Serious	V2 was merging onto the A52 eastbound. V1 was travelling eastbound on the A52 mainline. V2 and collides with a nearside barrier and rebounds into the carriageway. V1 collides with rear of V2
2100547	29/03/2021	Fine / Dry	Slight	V2 was stationary at the traffic lights in lane 2 on M1 northbound off-slip. V1 moved into lane 2 colliding with rear of V2
2200373	01/03/2022	Fine / Dry	Slight	V2 was travelling on the M1 northbound off-slip to join the A52 and was held up in queuing traffic. V1 approached from the rear and collided with V2
2200565	03/04/2022	Fine / Dry	Slight	V2 was on the roundabout circulatory and missed the exit and proceeded to travel around roundabout for second time. V1 was in the wrong lane and cut across the path of V2
2200680	23/04/2022	Fine / Dry	Slight	V2 was travelling to Bostocks Lane north in the inside lane, V1 entered the roundabout heading to the A52 eastbound and collided withV2
2200837	19/05/2022	Fine / Dry	Slight	V1 was approaching the A52 westbound off-slip and fails to see V2 and V3 already stationary due to build up of traffic on exit slip. V1 collides with the rear of V2, which is pushed forward into rear of V3.
2201068	24/06/2022	Fine / Dry	Slight	V2 was on the roundabout circulatory and started to move on a green signal. V1 overtook V2 and changed lanes; proceeded then to change lanes again and then collided with V2.
2300341	26/02/2023	Fine / Dry	Slight	V1 was travelling southbound from Bostocks Lane north towards the roundabout when V2 collided with the rear of V1.
2301064	28/04/2023	Raining / Wet	Fatal	Unknown vehicle has collided with a male pedestrian in the early hours (04:42am) on the M1 northbound off-slip.
231120	22/07/2023	Raining / Wet	Serious	V1 was travelling from Bostock Lane north to Bostock Lane south at excessive speed and failed to stop at the junction and collides with furniture and trees
2301337	27/08/2023	Fine / Dry	Serious	V1 was going ahead southwest to northeast when it was cut up by V2 causing V1 to take evasive action, leaving the carriageway nearside and rolled.
2400013	05/11/2023	Fine / Dry	Slight	V1 was travelling southbound on the M1 mainline and collided with V2 which was changing lanes
2400014	22/11/2023	Fine / Dry	Slight	V1 was held turning left from the M1 north to the A52 eastbound. V2 was travelling in the same direction and collided with the rear of V1. The collision occurred during hours of darkness

2400296	22/02/2024	Wet / Damp	Slight	V1 was travelling eastbound on the A52 mainline and collided with the rear of V2 in slow moving traffic.

2.30 The details show that whilst there has been a total of 18 recorded PICs, there are no specific locations where clusters of PICS have occurred. Whilst two fatal PICs have occurred, one involved a single driver losing control for unknown reasons, whilst the second involved a pedestrian walking on the slip road during hours of darkness. The fatal PICs therefore appear to be isolated incidents and not related to any physical defects of the junction. The remaining PICs are spread across all areas of the junction, with three PICs at the Bostocks Lane (N) arm, all of which were classified as slight and were a result of rear end shunt, changing lanes and turning movements on the circulatory and therefore show no patterns. With this and given the junction forms part of the Strategic Road Network, with the M1 and accommodates a significant amount of traffic, it is considered that there are no significant safety problems and no further assessment into highway safety will be undertaken as part of the Transport Assessment.

J15 – Station Road/Broad Rushes Roundabout

2.31 **Figure 15** shows a detailed extract of the PIC records at Station Road/Broad Rushes roundabout in Castle Donington confirming there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one as serious. **Table 14** summarises each of the recorded PICs in further detail.

Figure 15. Personal Injury Collisions at Station Road/Broad Rushes Roundabout

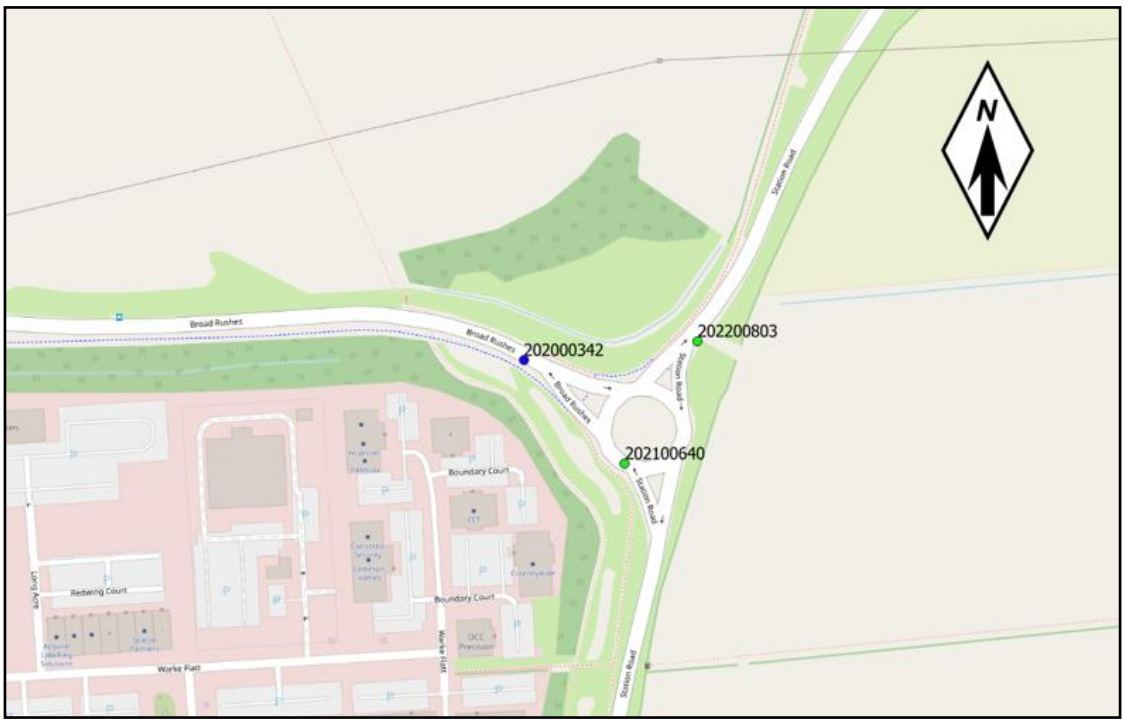


Table 14. Personal Injury Collision Data Summary (Station Road/Broad Rushes Roundabout)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202000342	23/06/2020	Fine / Dry	Serious	V1 (goods vehicle) collided with V2 (pedal cyclist) when attempting to overtake on Broad Rushes travelling east towards the roundabout
202100640	21/08/2021	Other / Dry	Slight	V1 was on the circulatory exiting at Broad Rushes and decided to change lane to the right and collided with V2 (motorcycle) that was travelling in the same direction
202200803	26/09/2022	Wet / Damp	Slight	V1 (motorcycle) was travelling towards the roundabout from Station Road N and collided with V2 (car) travelling north on Station Road N

2.32 The details show that there have been three recorded PICs at the Station Road/Broad Rushes roundabout, all of which occurred at different locations. Whilst they all involve pedal cyclists or motorcyclists, there are no trends and were due to overtaking, and movements on the circulatory. There appear to be no trends behind the PICs or any specific locations where clusters of PICs have formed. On this basis it is considered that there are no on-going highway safety problems at this location and no further assessment will be undertaken within the Transport Assessment.

J16 – A453/Kegworth Road Dumbbell Roundabouts

2.33 **Figure 16** shows a detailed extract of the PIC records near the A453/Kegworth Road dumbbell roundabouts confirming there have been five recorded PICs over the latest 6-year period, four of which were classified as slight and one as serious. **Table 15** summarises each of the recorded PICs in further detail.

Figure 16. Personal Injury Collisions at A453/Kegworth Road Dumbbell Roundabouts



Table 15. Personal Injury Collision Data Summary (A453/Kegworth Road Dumbbell Roundabouts

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
2D184622	07/10/2022	Fine / Dry	Slight	V1 was travelling northbound on Kegworth Road and lost control when negotiating the right-hand bend at its junction With Main Street
2D012221	24/01/2021	Snow	Slight	V1 was turning right at the roundabout from the north to Kegworth Road to the west and lost control
2D019922	06/02/2022	Fine / Dry	Slight	V2 was travelling southbound on the access road from Ratcliffe on Soar and collided with V2 travelling northbound on the same road
2D252119	19/12/2019	Fine / Dry	Slight	V1 was travelling northeastbound on the A453 and V2 was travelling in the same direction and collided with the rear of V1.
2D077923	28/05/2023	Fine, Dry	Serious	V1 was traveling northeastbound on A453 lost control, left the road and skidded.

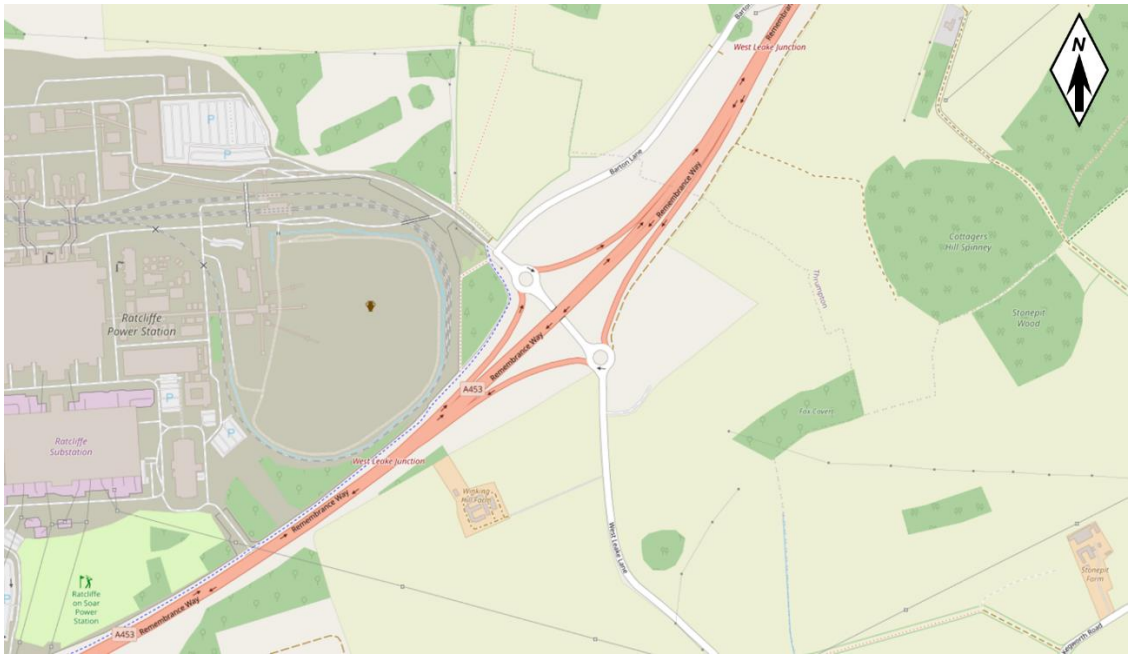
2.34 The details show that of five recorded PICs, only one occurred at the roundabouts themselves, two were on the A453 mainline, one on Kegworth Road, and another on the Ratcliffe Power Station access road. Four PICs were classified as slight and another

as serious. There are no patterns or locations where a cluster of PICs have occurred and on this basis, it is considered that there are no significant safety problems at the junction and no further assessment will be undertaken as part of the Transport Assessment.

J17 – A453/Barton Lane/West Leake Dumbbell Roundabouts

2.35 **Figure 17** shows a detailed extract of the PIC records across the A453/Barton Lane/West Leake Dumbbell roundabouts confirming there have been no recorded PICs over the latest 6-year period. It can therefore be concluded that there are no safety problems at this location and no further assessment will be undertaken within the Transport Assessment.

Figure 17. Personal Injury Collisions at A453/Barton Lane/West Leake Lane Roundabouts



Other Locations of Personal Injury Collision Clusters

M1 Mainline between Junctions 23A and 24

2.36 **Figure 18** shows a detailed extract of the PIC records on the M1 mainline between Junction 23A and Junction 24 confirming there have been five recorded PICs over the latest 6-year period, all of which were classified as slight. **Table 16** summarises each of the recorded PICs in further detail.

Figure 18. Personal Injury Collisions on M1 Mainline

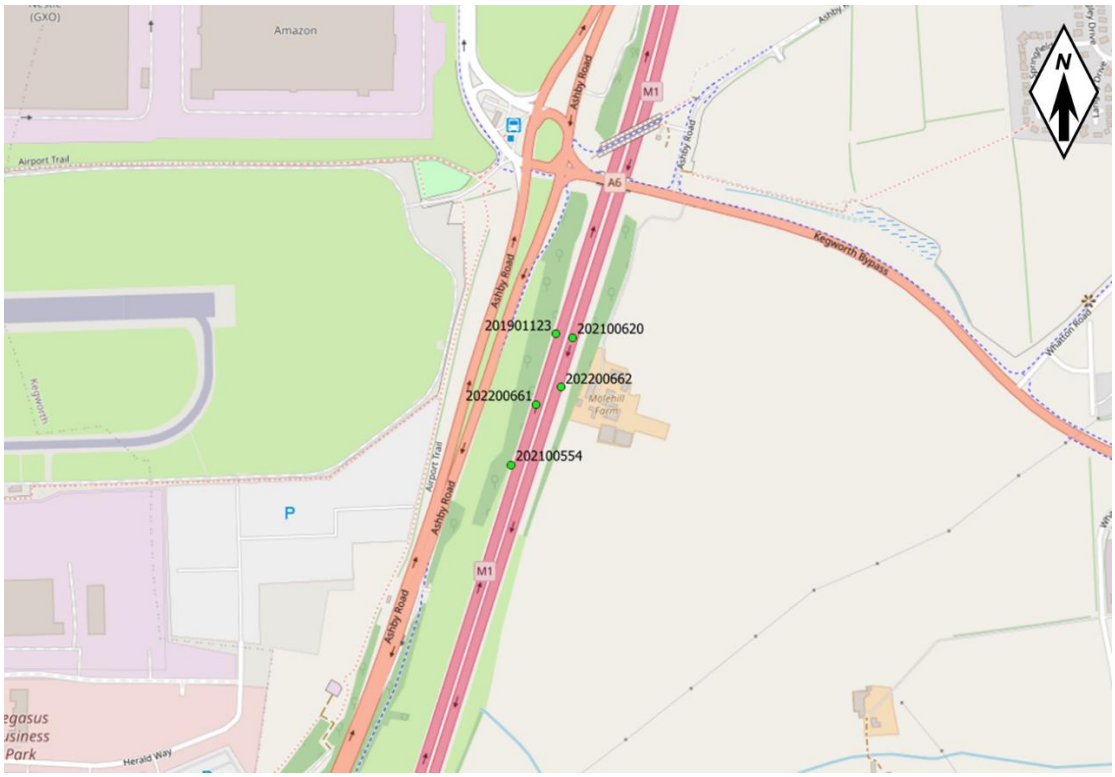


Table 16. Personal Injury Collision Data Summary (M1 Mainline)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
201901123	24/12/2019	Wet / Damp	Slight	V1 was travelling northbound on the M1 and lost control. No other vehicles were involved
202100554	27/07/2021	Wet / Damp	Slight	V1 and V2 were travelling northbound on the M1 and collided when V1 was changing lanes to the left
202100620	16/08/2021	Fine / Dry	Slight	V1 was travelling southbound on the M1 and collided with the rear of V2 which was being held up travelling in the same direction
202200661	11/08/2022	Fine / Dry	Slight	V1, V2, V3 and V4 were travelling northbound and collided with rear end shunts
202200662	11/08/2022	Fine / Dry	Slight	V1 was travelling southbound on the M1 and collided with V2 travelling in the same direction when changing lanes to the right

2.37 The details show that all five recorded PICs were classified as slight and caused due to a mixture of lane changing, rear end shunts and loss of control. The PICs were also balanced across the northbound and southbound carriageways. As such, there appear to be no common causal factors behind the PICs with the latest occurring in August 2022 and since then there has not been a single recorded PIC on this part of the network. On this basis, it is considered that there are no significant safety problems on this part of

the M1 mainline and no further assessment will be undertaken as part of the Transport Assessment.

A453/Moor Lane

2.38 **Figure 19** shows a detailed extract of the PIC records at the A453/Moor Lane confirming there have been three recorded PICs over the latest 6-year period, two of which were classified as slight and one serious. **Table 17** summarises each of the recorded PICs in further detail.

Figure 19. Personal Injury Collisions at A453/Moor Lane

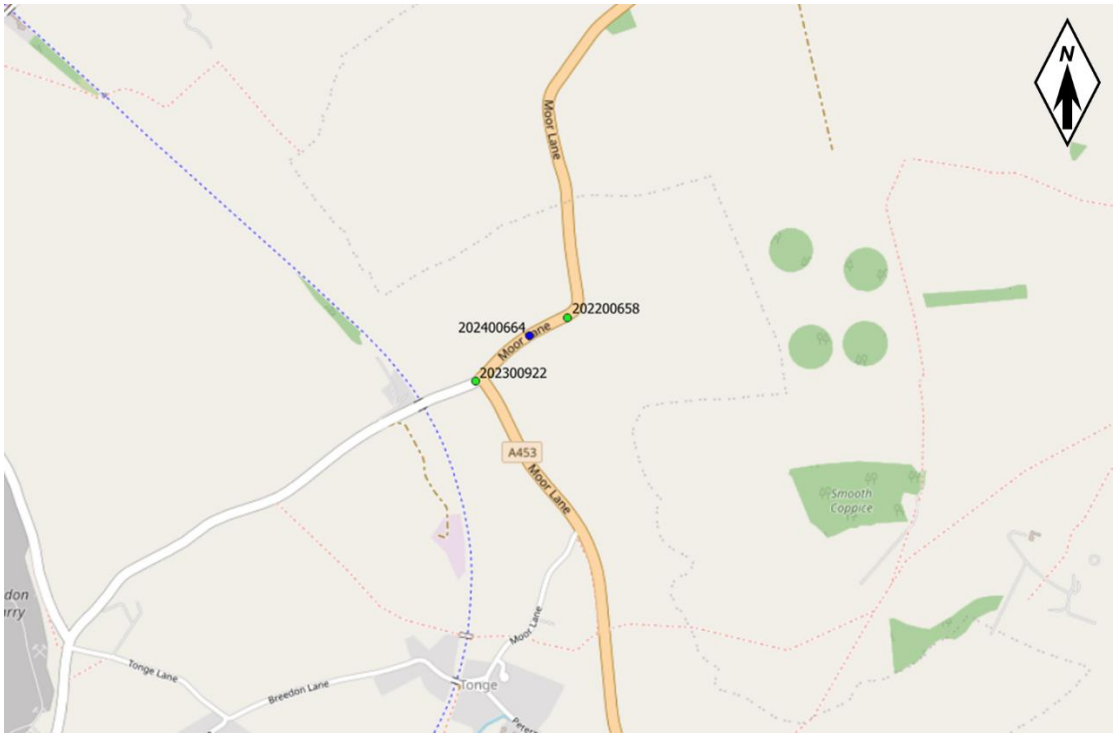


Table 17. Personal Injury Collision Data Summary (A453/Moor Lane)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202200658	10/08/2022	Fine / Dry	Slight	V1 was travelling southbound on the A453 around a right-hand bend losing control. The driver was a motorcyclist
202300922	01/10/2023	Wet / Damp	Slight	V1 and V2 were traveling eastbound on the A453 approaching the junction and collided due to a rear end shunt
202400664	19/07/2024	Fine / Dry	Serious	V1 was travelling southbound on the A453 and collided with V2 travelling northbound on the A453. The PIC was located away from the junction with Moor Lane

2.39 The details show that all three PICs were located on different parts of the network. One of the PICs was due to a motorcyclist losing control, whilst another was due to a rear end shunt between two cars and a third due to a head on collision. There are no patterns behind the PICs and consequently they appear to be isolated incidents. On this basis, it is considered that there are no significant safety problems on this part of the network and no further assessment will be undertaken as part of the Transport Assessment.

A453 Remembrance Way

2.40 **Figure 20** shows a detailed extract of the PIC records on the A453 Remembrance Way confirming there has been one fatal PIC recorded approximately 1.5km to the east of M1 Junction 24. **Table 18** summarises this PICs in further detail.

Figure 20. Personal Injury Collisions on Remembrance Way

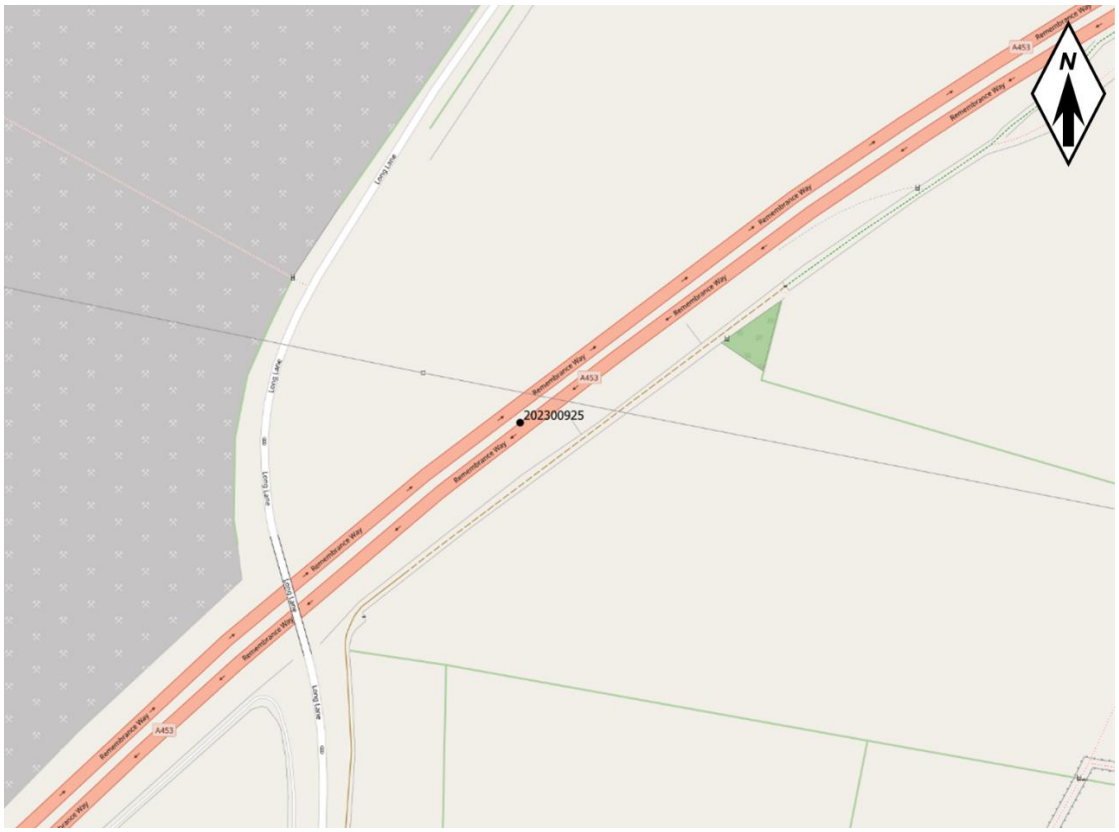


Table 18. Personal Injury Collision Data Summary (Remembrance Way)

Accident Number	Day/ Date	Weather / Road Surface	Severity	Description
202300925	01/10/2023	Wet / Damp	Fatal	V1 was travelling southwestbound on the A453 but held up and collided with V2 which was travelling in the same direction to the rear

2.41 The details show that this PIC occurred due to a rear end shunt collision on the A453 as a vehicle was held up approaching Junction 24. Whilst this resulted in fatal injuries, it appears to be an isolated incident with no other PICs occurring on this part of the network during the 6-year period. Therefore, whilst regrettable it is considered that there are no significant safety problems on this part of the network so whilst no further assessment of the highway safety will be undertaken at this location within the Transport Assessment consideration will be given to capacity improvements at Junction 24.

3. SUMMARY AND NEXT STEPS

3.1 This Highway Safety and Road Casualty Position Statement has reviewed Personal Injury Collision (PIC) data across the Strategic Road Network and local highway network in the vicinity of the East Midlands Gateway 2 development to understand whether there are any existing safety problems that could be exacerbated by the proposed development and hence require further consideration within the Transport Assessment. The PIC data was obtained from the relevant highway authorities for the latest 6-year period between 2019 and 2024.

3.2 It follows advice contained within the National Networks National Policy Statement (March 2024), and in particular Paragraphs 4.57 to 4.61 which relate to 'road safety'.

3.3 The PIC analysis has identified the following key locations where there could potentially be existing safety issues that require further consideration in the Transport Assessment:

- **EMG1 access junction** – a cluster of PICs have been recorded due to turning movements from the A6 to EMG1 colliding with drivers travelling southbound on the A453. One of the PICs was fatal.

- **M1 Junction 24** – a cluster of PICs have been recorded on the M1 northbound off-slip on approach to the roundabout. There are no known existing safety issues with the A50 northbound weaving section from Junction 24 as alluded to during the Public Consultation events.

- **A453/The Green** – a cluster of PICs have been recorded due to right turning movements from the A453 west into The Green. This appears to be due to the location of the junction within a dip in the carriageway and potential lack of signage or warnings.

3.4 The Transport Assessment will review these three locations in further detail to understand whether the proposed development is likely to generate traffic increases that could exacerbate any issues. Where traffic increases are expected, mitigation will be proposed to address any highway safety issues and ensure the proposed development would have no unacceptable impacts in accordance with the requirements of the National Planning Policy Framework and National Networks National Policy Statement.

3.5 The following proposals are being considered and proposed by the proposed development which should have a benefit from a highway safety perspective on the three key locations:

- Provision of a new free flow link between the M1 northbound and A50, which should reduce traffic on the M1 northbound off-slip and the level of congestion approaching the junction.

- Works to the EMG1 access junction by providing two lanes into EMG1 for vehicles travelling southbound on the A453. This presents an opportunity to make changes to the traffic signals to improve safety of the junction.

- Whilst not formally included in the proposed mitigation package at this stage of the process, further consideration of the A453/The Green junction will be undertaken such as the provision of additional signage and/or carriageway surfacing markings to improve the safety associated with right turning vehicles.

3.6 The remaining junctions and links across the study area appear to have no significant safety problems that should not be materially impacted by the proposed development, however highway safety will be considered as part of any new infrastructure improvements being proposed.

3.7 From a highway safety perspective, the details in this report will be taken and considered further in the following stages of work:

- Further analysis in the Transport Assessment
- Stage 1 Road Safety Audit
- Safety risk assessments to GG 104 for departures from standard on the Strategic Road Network
- Stages 2, 3 and 4 Road Safety Audits
- Walking, Cycling and Horse-Riding Assessments and Reviews

3.8 It therefore forms the first stage in an on-going process to consider and improve highway safety and road casualties on the surrounding network that could be impacted by the proposed development.

Appendix 1. National Networks National Policy Statement Road Safety Extracts

Department for Transport

National Networks National Policy Statement



March 2024

added would make that development unacceptable, particularly in relation to statutory environmental quality limits

4.52 The Secretary of State should not refuse consent because of pollution impacts unless there is good reason to believe that any relevant necessary operational pollution control permits or licences, or other consents would not be granted.

Common law nuisance and statutory nuisance

4.53 Section 158 of the Planning Act 2008 provides a defence of statutory authority in civil or criminal proceedings for nuisance. Such a defence is also available in respect of anything else authorised by an order granting development consent. This would include a defence for proceedings for nuisance under Part III of the Environmental Protection Act 1990 ("the 1990 Act") (statutory nuisance) but only to the extent that the nuisance is the inevitable consequence of what has been authorised.

4.54 The defence does not extinguish the local authority's duties under Part III of the 1990 Act to inspect its area and take reasonable steps to investigate complaints of statutory nuisance, and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence.

4.55 It is very important that, during the examination of a nationally significant infrastructure project, possible sources of nuisance under section 79(1) of the 1990 Act, and how they may be mitigated or limited, are considered by the Examining Authority so they can recommend appropriate requirements that the Secretary of State might include in any subsequent order granting development consent. More information on the consideration of possible sources of nuisance is at paragraphs 5.117 to 5.125.

4.56 When considering whether to include exceptions to the defence in an order granting development consent (section 158(3) of the Planning Act 2008), the Secretary of State should have regard to whether any nuisance is an inevitable consequence of the development.

Safety

Road Safety

4.57 Highways developments provide an opportunity to make significant safety improvements and significant incident reduction benefits when they are well designed. Some developments may have safety as a key objective, but even where safety is not the main aim of a development, the opportunity should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate. Consideration should also be given to wider transport objectives, including expanding active travel, and creating safe and pleasant walking, wheeling and cycling environments. In developing roads schemes the applicant should have due regard to the needs of drivers and riders and the imperative to ensure road user safety. Schemes should be developed with a mindset that accounts for the need for motorists to rest, particularly Heavy Goods Vehicle drivers who need safe and secure roadside

facilities that also cater for their welfare needs including the appropriate provision of high-quality washrooms, a catering offer and access to alternative fuel and digital infrastructure.

4.58 The applicant should undertake an objective assessment of the impact of the proposed development on safety including the impact of any mitigation measures. This should use the methodology outlined in the guidance from Department for Transport's Transport Analysis Guidance and from National Highways. They should also put in place arrangements for undertaking the road safety audit process and ensuring their implementation. Road safety audits are a mandatory requirement for highway improvement schemes in the UK (including motorways). Road safety audits are intended to ensure that operational road safety experience is applied during the design and construction process so that the number and severity of collisions is as low as is reasonably practicable.

4.59 The applicant should be able to demonstrate that their scheme is consistent with government Road Safety policy and with the National Highways Safety Framework for the Strategic Road Network. Applicants must show that they have taken all steps that are reasonably required to minimise the risk of death and injury arising from their development, including:

- contributing to an overall reduction in road casualties
- contributing to an overall reduction in the number of unplanned incidents
- contributing to improvements in road safety for pedestrians and cyclists[95]

4.60 The applicant must also demonstrate that:

- they have considered the safety implications of their project from the outset
- they are putting in place rigorous processes for monitoring and evaluating safety

4.61 The Secretary of State should not grant development consent unless satisfied that all reasonable steps have been taken and will be taken to:

- minimise the risk of road casualties arising from the scheme
- contribute to improvements in the safety of the strategic road network

Rail Safety

4.62 It is the government's policy, supported by legislation, to ensure that the risks of passenger and workforce accidents are reduced so far as reasonably practicable. Rail schemes should take account of this and seek to further improve safety at every opportunity and where there is value for money in doing so.

4.63 The rail industry is required by law to consider the impact on safety of any proposed changes to the rail network through rigorous risk assessment. The principle of "so far as is reasonably practicable" is applied through the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) which are enforced by the Office of Rail and Road[96]. The rail industry is also required by legislation to comply with applicable Common Safety Methods. This

Appendix 2. Personal Injury Collision Data (Leicestershire County Council network)

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection: **Notes:**

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900030	16/01/2019	442450	322838	Other	Wet/Damp	Darkness: no street lighting	Slight

Location: A453 BREEDON ON THE HILL APPROX 250 NORTH WEST JW A42

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900204	06/02/2019	447466	328064	Fine without high winds	Wet/Damp	Daylight	Slight

Location: M1 LOCKINGTON-HEMINGTON JW M1 NORTHBOUND ON-SLIP JUNCTION 24

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead other	S	N
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead other	S	N
Goods 7.5 tonnes mgw and over	Entering from slip road	Going ahead left bend	S	N
Car	Jct Approach	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900471	13/05/2019	447300	326389	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD KEGWORTH ROUNDABOUT JW KEGWORTH BYPASS

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Starting	E	NE
Car	Entering roundabout	Starting	E	NE
Goods 7.5 tonnes mgw and over	Mid Junction - on roundabout or main road	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900573	19/03/2019	445040	329440	Fine without high winds	Dry	Daylight	Slight

Location: A50 EASTBOUND CASTLE DONINGTON AT JUNCTION 1 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods over 3.5 tonnes and under 7.5 tonnes mgw	Mid Junction - on roundabout or main road	Changing lane to left	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900684	29/06/2019	446885	323821	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: M1 NORTHBOUND LONG WHATTON & DISEWORTH MARKER POST 181/4A

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to right	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900692	23/07/2019	444777	328130	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	NW	N

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900725	23/07/2019	444590	328170	Fine without high winds	Dry	Daylight	Serious

Location: TRENT LANE CASTLE DONINGTON JW WILLOW ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900830	28/08/2019	448900	319585	Other	Wet/Damp	Darkness: street lights present and lit	Serious

Location: M1 NORTHBOUND SHEPSHED AT MARKER 176/7.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201900889	17/09/2019	446785	325441	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON AND DISEWORTH 500M EAST OF BEVERLEY ROAD JUNCTION

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Going ahead other	W	E
Taxi/Private hire car	Not at, or within 20M of Jct	Going ahead but held up	E	W
Car	Not at, or within 20M of Jct	Going ahead but held up	E	W
Other vehicle - specify	Not at, or within 20M of Jct	Going ahead but held up	E	W
Other vehicle - specify	Not at, or within 20M of Jct	Going ahead but held up	E	W

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901038	17/11/2019	445284	325302	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON 30 METRES NORTH EAST OF C8204 GRIMES GATE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901123	24/12/2019	447291	326175	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: M1 NORTHBOUND KEGWORTH MARKER POST 183/8A

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901126	27/12/2019	447019	325205	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND MARKER POST 182/8B

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901163	22/10/2019	447445	327510	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	E	W
Goods 7.5 tonnes mgw and over	Leaving roundabout	Changing lane to left	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901190	13/11/2019	443367	328149	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: ARUNDEL AVENUE CASTLE DONINGTON EXACT LOCATION UNKNOWN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Stopping	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901200	13/11/2019	446680	323740	Fine without high winds	Wet/Damp	Daylight	Slight

Location: C8214 WEST END LONG WHATTON 50M W LONG MEADOW LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NW	E
Car	Not at, or within 20M of Jct	Going ahead right bend	E	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901277	27/06/2019	444495	325270	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW ROAD TO DISEWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	W	S
Car	Mid Junction - on roundabout or main road	Going ahead other	E	W
Car	Jct Approach	Waiting to turn right	S	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901521	18/02/2019	445400	329430	Fine without high winds	Dry	Daylight	Slight

Location: A50 ROUNDABOUT LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901523	23/02/2019	447530	327555	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: M1 KEGWORTH NR JUNCTION 24. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901547	28/04/2019	444640	325250	Fine without high winds	Dry	Daylight	Slight

Location: A453 CASTLE DONINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	E	W
Car	Not at, or within 20M of Jct	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901566	13/07/2019	448645	328665	Fine without high winds	Dry	Daylight	Slight

Location: LONG LANE KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
201901591	22/10/2019	447725	327725	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH NR M1. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	SW	NE
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000018	17/01/2020	448125	328034	Fine without high winds	Dry	Darkness: no street lighting	Serious

Location: A453 GREEN LANE 90 METRES SOUTH WEST OF DOWELL'S BARN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods over 3.5 tonnes and under 7.5 tonnes mgw	Not at, or within 20M of Jct	Parked	Parked	Parked
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NE	SW
Car	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000165	21/01/2020	445595	325390	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Fatal

Location: A453 ASHBY ROAD LONG WHATTON AT ENTRANCE TO AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Agricultural vehicle	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Vehicle Passenger	Fatal
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000342	23/06/2020	444875	328915	Fine without high winds	Dry	Daylight	Serious

Location: BROAD RUSHES CASTLE DONINTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	W	E
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000434	22/07/2020	444770	328105	Fine without high winds	Dry	Daylight	Serious

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	N	Parked
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000446	25/07/2020	445580	325380	Fine without high winds	Dry	Daylight	Slight

Location: A453 LONG WHATTON AT ENTRANCE TO AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	E	W
Car	Cleared junction or waiting/parked at junction exit	Changing lane to left	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000492	09/02/2020	448975	318305	Raining with high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A512 ASHBY ROAD EAST SHEPSHED AT JUNCTION 23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Stopping	W	E
Car	Jct Approach	Stopping	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000564	19/03/2020	446940	325230	Fine without high winds	Wet/Damp	Darkness: street lighting unknown	Slight

Location: A42 NORTHBOUND EXIT SLIPROAD FROM JUNCTION 23A.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Parked	Parked	Parked
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Overtaking stat vehicle O/S	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000589	09/08/2020	448225	327082	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000596	05/08/2020	447495	327455	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND KEGWORTH AT J24 OFFSLIP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Stopping	S	N
Car	Jct Approach	Going ahead but held up	S	N
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	S	N
Goods 7.5 tonnes mgw and over	Jct Approach	Going ahead but held up	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Serious
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000627	20/08/2020	445290	325090	Fine without high winds	Dry	Daylight	Slight

Location: C8204 GRIMES GATE DISEWORTH AT ENTRANCE TO BYLANDS COTTAGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Reversing	W	E
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202000881	10/11/2020	449195	318315	Fine without high winds	Dry	Darkness: street lights present but unlit	Slight

Location: A512 ASHBY ROAD LOUGHBOROUGH JW M1 JUNCTION 23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Stopping	E	W
Car	Entering roundabout	Stopping	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001164	14/10/2020	444300	328215	Fine without high winds	Dry	Daylight	Serious

Location: TRENT LANE CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	E	W

Casualties:

Class	Severity
Pedestrian	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001233	04/12/2020	447100	328845	Fine without high winds	Dry	Daylight	Serious

Location: MAIN STREET LOCKINGTON JW WARREN LANE EXACT LOCATION & DIRECTION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SE	NW

Casualties:

Class	Severity
Vehicle Passenger	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001238	10/12/2020	444745	327865	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202001249	17/12/2020	444855	328425	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100046	25/01/2021	449035	318250	Other	Frost/Ice	Daylight	Slight

Location: M1 NORTHBOUND EXIT SLIPROAD SHEPSHED AT JUNCTION 23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Stopping	S	N
Car	Jct Approach	Stopping	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100116	08/03/2021	446820	330620	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON-HEMINGTON EXACT LOCATION & DIRECTIONS UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100148	23/03/2021	448250	326730	Fine without high winds	Dry	Daylight	Slight

Location: C8211 ASHBY ROAD KEGWORTH NEXT TO NUMBER 22.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Leaving main road	Reversing	S	N

Casualties:

Class	Severity
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100163	31/03/2021	447430	326555	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH AT MARLER 184/2.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100191	12/04/2021	447650	327705	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 REMEMBRANCE WAY KEGWORTH AT EXIT FROM M1 JUNCTION 24 ROUNDABOUT

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Turning left	N	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100207	08/04/2021	447300	326430	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 KEGWORTH ON ROUNDABOUT WITH KEGWORTH BY-PASS

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	S
Car	Leaving roundabout	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100249	25/04/2021	448965	319387	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND SHEPSHED AT MARKER 176/5.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Taxi/Private hire car	Not at, or within 20M of Jct	Changing lane to right	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	Parked	Parked
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100259	29/04/2021	444775	328105	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning right	W	S
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100273	05/05/2021	444285	328805	Fine without high winds	Wet/Damp	Daylight	Slight

Location: BROAD RUSHES CASTLE DONINGTON JW BACK LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead other	SW	NE

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100299	12/05/2021	446365	330255	Fine without high winds	Wet/Damp	Daylight	Serious

Location: B6540 TAMWORTH ROAD LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100303	12/05/2021	447410	327110	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH APPROACHING JW A50.EXACT LOCATION NOT PROVIDED.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100367	28/05/2021	447515	327190	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH AT MP185/0.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Changing lane to right	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100382	02/06/2021	443010	325745	Fine without high winds	Dry	Daylight	Slight

Location: C8214 HILL TOP CASTLE DONINGTON OUTSIDE ENTRANCE TO RACE TRACK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NE	S
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead left bend	NE	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100407	10/06/2021	447760	322145	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND LONG WHATTON AT MARKER 179/5

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead other	NW	SE
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Changing lane to right	NW	SE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100432	16/06/2021	447295	326405	Fine without high winds	Dry	Daylight	Serious

Location: A453 KEGWORTH JW KEGWORTH BY-PASS.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	S
Car	Entering roundabout	Starting	E	W
Car	Entering roundabout	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100476	27/06/2021	447475	326690	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking nearside	N	S
Car	Not at, or within 20M of Jct	Parked	Parked	Parked

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100554	27/07/2021	447230	325990	Raining without high winds	Wet/Damp	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH APPROX 1 MILE S JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100568	30/07/2021	449350	318345	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A512 ASHBY ROAD LOUGHBOROUGH APPROX 150M E M1.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100620	16/08/2021	447315	326170	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH AT MARKER 183/8.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead but held up	N	S

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100635	21/08/2021	448650	326885	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: BOROUGH STREET KEGWORTH EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	NE	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100640	21/08/2021	444925	328865	Other	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW BROAD RUSHES.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Changing lane to right	N	W
Motorcycle over 500cc	Leaving roundabout	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100670	03/09/2021	446927	325332	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A453 FINGER FARM ROUNDABOUT LONG WHATTON AT EXIT FROM A42.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100673	03/09/2021	447490	328075	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND LOCKINGTON NR J24 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Car	Jct Approach	Changing lane to right	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100682	06/09/2021	447385	328500	Fine without high winds	Dry	Daylight	Serious

Location: M1 SOUTHBOUND KEGWORTH APPROACHING J24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100694	10/09/2021	446965	325350	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 JUNCTION 23A ROUNDABOUT LONG WHATTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead but held up	NW	S
Car	Leaving roundabout	Starting	NW	SW

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100699	11/09/2021	447505	327350	Fine without high winds	Dry	Daylight	Slight

Location: M1 JUNCTION 24 NORTHBOUND OFF SLIPROAD KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100773	28/09/2021	444505	327285	Fine without high winds	Dry	Daylight	Serious

Location: MARKET STREET CASTLE DONINGTON JW BONDGATE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning left	N	E

Casualties:

Class	Severity
Pedestrian	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100781	03/10/2021	443015	325625	Fine without high winds	Dry	Daylight	Slight

Location: C8214 HILL TOP CASTLE DONINGTON AT ENTRANCE TO DONINGTON PARK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	N	W
Motorcycle over 500cc	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100812	13/10/2021	447120	331070	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON-HEMINGTON AT RIVER BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202100872	29/10/2021	445490	327580	Fine without high winds	Wet/Damp	Darkness: no street lighting	Serious

Location: C9204 HEMINGTON HILL HEMINGTON ON BEND E OF NUMBER 11.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead right bend	NE	W
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead left bend	W	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202101522	26/03/2021	449000	319225	Fine without high winds	Dry	Darkness: street lighting unknown	Serious

Location: M1 SHEPSHED BETWEEN J22 & J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Car	Not at, or within 20M of Jct	Going ahead other	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200028	15/01/2022	447190	328740	Fog or mist	Frost/Ice	Darkness: street lights present and lit	Slight

Location: A50 NORTHBOUND SLIPROAD LOCKINGTON-HEMINGTON EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW
Car	Not at, or within 20M of Jct	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200046	18/01/2022	447995	321770	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LOCKINGTON-HEMINGTON AT MARKER 179/0

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	NW	SE
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200063	21/01/2022	448720	320160	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND SHEPSHED AT MARKER 177/3

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200072	24/01/2022	448805	326635	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: A50 LONDON ROAD KEGWORTH JW NOTTINGHAM ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	N	S
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead left bend	S	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200093	29/01/2022	447115	325880	Raining without high winds	Wet/Damp	Darkness: no street lighting	Serious

Location: A453 SOUTHBOUND KEGWORTH APPROX 500M N JUNCTION 23A ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200096	30/01/2022	446635	324235	Fine without high winds	Dry	Darkness: street lights present and lit	Serious

Location: A42 NORTHBOUND LONG WHATTON ON SLIPROAD FOR A453.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	SW	NE
Car	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200193	05/03/2022	446940	330740	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON JW WARREN LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	U-turn	SW	SW
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200202	08/03/2022	443940	326310	Fine without high winds	Frost/Ice	Darkness: no street lighting	Slight

Location: C8214 HILL TOP CASTLE DONINGTON OUTSIDE HILL TOP FARM.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Turning left	W	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200264	29/03/2022	448540	326865	Fine without high winds	Dry	Daylight	Serious

Location: A6 DERBY ROAD KEGWORTH OUTSIDE NUMBER 52.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Pedestrian	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200286	06/04/2022	446370	330260	Fine without high winds	Dry	Daylight	Slight

Location: B6540 TAMWORTH ROAD LOCKINGTON APPROX 200M SW NETHERFIELD LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	U-turn	SW	SW
Motor Cycle over 125 cc and up to 500cc	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200346	30/04/2022	443945	326280	Fine without high winds	Dry	Daylight	Serious

Location: C8214 HILL TOP CASTLE DONINGTON AT ROUNDABOUT NR ENTRANCE TO AEROPARK.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Leaving roundabout	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200400	16/05/2022	447100	325540	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH APPROX 1500M S JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200447	02/06/2022	444725	327435	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: BOROUGH STREET CASTLE DONINGTON OPPOSITE NUMBER 46

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE
Car	Entering main road	Turning left	NW	NE
Car	Cleared junction or waiting/parked at junction exit	Parked	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200477	14/06/2022	448160	327127	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH JW SIDE LEY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	NW	SE
Car	Entering main road	Turning right	NE	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200609	25/07/2022	443395	325480	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A453 CASTLE DONINGTON AT DHL ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200623	30/07/2022	448930	328790	Fine without high winds	Wet/Damp	Daylight	Serious

Location: A453 SOUTHBOUND KEGWORTH APPROX 250M SW RIVER BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200634	02/08/2022	444485	325280	Other	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Stopping	W	E
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	W	E
Car	Mid Junction - on roundabout or main road	Waiting to turn right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200658	10/08/2022	442060	324115	Fine without high winds	Dry	Daylight	Slight

Location: A453 BREEDON ON THE HILL APPROX 250M NE MOOR LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Not at, or within 20M of Jct	Going ahead right bend	N	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200661	11/08/2022	447265	326075	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND KEGWORTH AT MARKER 183/7.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200662	11/08/2022	447300	326100	Fine without high winds	Dry	Daylight	Slight

Location: M1 SOUTHBOUND KEGWORTH EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to right	N	S
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200748	06/09/2022	449080	317910	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 NORTHBOUND SHEPSHED AT EXIT SLIPROAD FOR JUNCTION 23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Changing lane to right	S	N
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200766	28/06/2022	447125	328790	Fine without high winds	Dry	Daylight	Slight

Location: A50 WESTBOUND LOCKINGTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	SE	NW
Car	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200803	26/09/2022	444960	328925	Raining without high winds	Wet/Damp	Daylight	Slight

Location: STATION ROAD CASTLE DONINGTON JW BROAD RUSHES.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 125 cc and up to 500cc	Jct Approach	Going ahead other	N	S
Car	Leaving roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200830	04/10/2022	448330	327135	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: C8207 SIDE LEY KEGWORTH OUTSIDE NUMBER 87.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Reversing	S	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200835	23/09/2022	448965	319290	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND SHEPSHED AT MP 176/4.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200862	10/10/2022	444490	325278	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Jct Approach	Going ahead other	W	E
Car	Mid Junction - on roundabout or main road	Waiting to turn right	W	S

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200912	26/10/2022	445590	325390	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON AT ENTRANCE TO EAST MIDLANDS AIRPORT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	E	N
Goods vehicle - unknown weight	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200926	31/10/2022	443920	328195	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: ARUNDEL AVENUE CASTLE DONINGTON EXACT LOCATION NOT GIVEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead right bend	NE	W
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202200985	11/11/2022	444920	327200	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: EASTWAY CASTLE DONINGTON NR NUMBER 30.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motor Cycle over 50 cc and up to 125cc	Not at, or within 20M of Jct	Going ahead other	W	E
Car	Not at, or within 20M of Jct	Parked	Parked	Parked

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202201031	20/11/2022	449150	318368	Fine without high winds	Dry	Daylight	Slight

Location: A512 ASHBY ROAD SHEPSHED ON M1 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Changing lane to right	W	E
Car	Mid Junction - on roundabout or main road	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202201105	20/12/2022	444830	328315	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Serious

Location: C8214 STATION ROAD CASTLE DONINGTON AT ENTRANCE TO PETROL STATION.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Waiting to turn right	S	E
Car	Mid Junction - on roundabout or main road	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300023	09/01/2023	445430	329365	Fine without high winds	Dry	Darkness: street lights present and lit	Fatal

Location: A50 ROUNDABOUT LOCKINGTON-HEMINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W
Car	Entering roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Fatal

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300142	18/02/2023	447625	327715	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 JUNCTION 24 ROUNDABOUT KEGWORTH NR EXIT FOR A453 TO NOTTINGHAM.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300354	15/05/2023	445255	325280	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD LONG WHATTON JW GRIMES GATE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	SW	NE
Car	Mid Junction - on roundabout or main road	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300386	25/05/2023	447530	327570	Fine without high winds	Dry	Daylight	Serious

Location: M1 NORTHBOUND KEGWORTH NR JUNCTION 24

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300409	25/05/2023	448670	320300	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND BETWEEN J23 & 23A. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300500	09/06/2023	446935	325445	Fine without high winds	Dry	Daylight	Slight

Location: A453 NORTHBOUND KEGWORTH AT EXIT FROM DONINGTON SERVICES ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Changing lane to left	S	N
Goods vehicle - unknown weight	Cleared junction or waiting/parked at junction exit	Starting	S	N

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300546	08/06/2023	447095	330925	Fine without high winds	Dry	Daylight	Serious

Location: B6540 TAMWORTH ROAD LOCKINGTON S OF MARINA BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	N	S

Casualties:

Class	Severity
Pedestrian	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300555	07/07/2023	446975	325370	Fine without high winds	Dry	Daylight	Slight

Location: A453 FINGER FARM ROUNDABOUT KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	N	S
Motor Cycle over 50 cc and up to 125cc	Mid Junction - on roundabout or main road	Changing lane to right	N	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300565	10/07/2023	447305	328065	Raining without high winds	Wet/Damp	Daylight	Slight

Location: A50 NORTHBOUND LOCKINGTON APPROX 150M N CHURCH STREET.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300587	18/03/2023	444810	327445	Fine without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: C9204 CLAPGUN STREET CASTLE DONINGTON JW THE HOLLOW.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Entering main road	Turning right	NW	SW

Casualties:

Class	Severity
Pedestrian	Slight
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300716	16/08/2023	446630	324190	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LONG WHATTON NR J23 ON SLIP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	NE	SW
Car	Not at, or within 20M of Jct	Going ahead other	NE	SW
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300893	25/09/2023	448055	321620	Fine without high winds	Dry	Darkness: street lighting unknown	Slight

Location: M1 NORTHBOUND LONG WHATTON AT MP 178/9.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	SE	NW
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SE	NW

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300910	25/09/2023	447660	327700	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE AT EXIT FOR REMEMBRANCE WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Going ahead other	N	E
Van / Goods 3.5 tonnes mgw and under	Leaving roundabout	Changing lane to left	N	E

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300911	29/09/2023	442730	322370	Fine without high winds	Dry	Daylight	Slight

Location: GELSCOE LANE.BREEDON ON THE HILL EXACT LOCATION UNKNOWN

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	S	W
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Going ahead other	E	W

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300922	01/10/2023	441840	323960	Fine without high winds	Wet/Damp	Daylight	Slight

Location: A453 BREEDON ON THE HILL JW MOOR LANE

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead other	SW	NE
Car	Jct Approach	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300925	01/10/2023	448790	328690	Fine without high winds	Wet/Damp	Daylight	Fatal

Location: A453 REMEBRANCE WAY KEGWORTH APPROX 150M NE LONG LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	NE	SW
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead other	NE	SW

Casualties:

Class	Severity
Driver / Rider	Fatal

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300941	04/10/2023	447810	327465	Fine without high winds	Dry	Daylight	Slight

Location: A6 DERBY ROAD KEGWORTH AT ENTRANCE TO PAINTBALL CENTRE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	SE	NW
Car	Entering main road	Turning right	NE	NW

Casualties:

Class	Severity
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300964	06/10/2023	447500	327440	Raining without high winds	Wet/Damp	Daylight	Slight

Location: M1 NORTHBOUND EXIT SLIPROAD FOR JUNCTION 24.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N
Car	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202300979	27/09/2023	449470	324550	Fine without high winds	Dry	Daylight	Serious

Location: A6 LONDON ROAD LONG WHATTON EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Stopping	S	N
Van / Goods 3.5 tonnes mgw and under	Not at, or within 20M of Jct	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301020	22/10/2023	447480	327490	Fine without high winds	Dry	Daylight	Serious

Location: A453 JUNCTION 24 ROUNDABOUT KEGWORTH AT EXIT FROM M1 NORTHBOUND.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead other	E	W
Motorcycle over 500cc	Entering roundabout	Going ahead other	S	N

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301106	04/11/2023	447490	322555	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: M1 SOUTHBOUND LONG WHATTON AT MP 180/0.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	NW	SE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301253	15/12/2023	448865	326120	Fine without high winds	Dry	Darkness: street lights present but unlit	Serious

Location: A6 KEGWORTH AT ROUNDABOUT WITH KEGWORTH BY-PASS.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301262	18/12/2023	444580	322660	Fine without high winds	Wet/Damp	Daylight	Serious

Location: A42 NORTHBOUND LONG WHATTON NR MP 84/5.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Starting	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead other	SW	NE

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202301272	22/12/2023	446965	328940	Raining without high winds	Wet/Damp	Darkness: street lights present and lit	Slight

Location: A50 LOCKINGTON ON SLIPROAD TO M1 SOUTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead other	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400009	04/01/2024	444815	327445	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: C9402 CLAPGUN STREET CASTLE DONINGTON JW THE HOLLOW.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Pedestrian	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400038	13/01/2024	447295	326400	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE KEGWORTH.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Starting	N	S
Car	Mid Junction - on roundabout or main road	Starting	E	W

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400129	29/01/2024	447500	327380	Fine without high winds	Dry	Darkness: street lights present and lit	Slight

Location: M1 NORTHBOUND KEGWORTH APPROACHING J24 EXIT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead but held up	S	N
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400144	09/02/2024	448715	327155	Raining without high winds	Wet/Damp	Daylight	Slight

Location: C8207 STATION ROAD KEGWORTH JW LONG LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Mid Junction - on roundabout or main road	Going ahead	E	W
Car	Entering main road	Going ahead	S	N

Casualties:

Class	Severity
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400163	16/02/2024	445260	322965	Raining without high winds	Wet/Damp	Darkness: no street lighting	Slight

Location: A42 NORTHBOUND LONG WHATTON & DIESWORTH NE OF LONGMERE LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	SW	NE
Goods 7.5 tonnes mgw and over	Not at, or within 20M of Jct	Going ahead	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400192	23/02/2024	446860	323920	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND LONG WHATTON APPROACHING J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	S	N
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Overtaking moving vehicle O/S	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400235	15/03/2024	449080	317880	Fine without high winds	Dry	Daylight	Less serious

Location: M1 NORTHBOUND LOUGHBOROUGH APPROACHING J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Changing lane to left	S	N
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400243	17/03/2024	448380	328325	Raining without high winds	Wet/Damp	Daylight	Slight

Location: A453 NORTHBOUND KEGWORTH APPROX 400M SW LONG LANE BRIDGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	SW	NE

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400297	04/04/2024	449070	318005	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND SHEPSHED ON SLIPROAD TO J23.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving main road	Going ahead	S	N
Car	Leaving main road	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400337	18/04/2024	444785	327193	Fine without high winds	Dry	Daylight	Slight

Location: EASTWAY CASTLE DONINGTON OUTSIDE SCHOOL.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning right	S	E
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400395	06/05/2024	446845	324455	Fine without high winds	Dry	Daylight	Slight

Location: M1 NORTHBOUND LONG WHATTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400439	14/05/2024	449040	319030	Fine without high winds	Dry	Daylight	Less serious

Location: M1 SOUTHBOUND SHEPSHED EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Goods vehicle - unknown weight	Not at, or within 20M of Jct	Going ahead	N	S

Casualties:

Class	Severity
Vehicle Passenger	Less serious
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400534	12/06/2024	447250	326415	Fine without high winds	Dry	Daylight	Slight

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Stopping	S	N
Car	Mid Junction - on roundabout or main road	Going ahead	S	N
Car	Mid Junction - on roundabout or main road	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Slight
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400611	27/06/2024	444770	328110	Fine without high winds	Dry	Daylight	Slight

Location: C8214 STATION ROAD CASTLE DONINGTON JW TRENT LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Starting	S	N
Car	Entering main road	Starting	W	E

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400622	05/07/2024	447255	326415	Fine without high winds	Dry	Daylight	Fatal

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	S	N
Goods vehicle - unknown weight	Mid Junction - on roundabout or main road	Going ahead but held up	E	W

Casualties:

Class	Severity
Driver / Rider	Very serious
Vehicle Passenger	Moderately serious
Vehicle Passenger	Fatal
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400664	19/07/2024	441970	324070	Fine without high winds	Dry	Darkness: no street lighting	Moderately serious

Location: A453 BREEDON ON THE HILL BETWEEN TONGE & ISLEY WALTON.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Car	Not at, or within 20M of Jct	Going ahead	S	N

Casualties:

Class	Severity
Vehicle Passenger	Less serious
Vehicle Passenger	Moderately serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400668	21/07/2024	447263	326487	Fine without high winds	Dry	Daylight	Less serious

Location: A453 KEGWORTH INTERCHANGE JW WILDERS WAY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering roundabout	Going ahead	W	E
Car	Mid Junction - on roundabout or main road	Going ahead	S	N

Casualties:

Class	Severity
Driver / Rider	Less serious
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400696	31/07/2024	447650	327580	Fine without high winds	Dry	Daylight	Less serious

Location: M1 JUNCTION 24 ROUNDABOUT KEGOWORTH. EXACT LOCATION UNKNOWN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Leaving roundabout	Changing lane to left	N	S
Motorcycle over 500cc	Mid Junction - on roundabout or main road	Turning right	N	W

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400698	01/08/2024	449220	318330	Fine without high winds	Dry	Daylight	Less serious

Location: A512 ASHBY ROAD EAST SHEPSHED AT J23 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Going ahead but held up	E	W
Car	Entering roundabout	Going ahead	N	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Less serious
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400699	30/07/2024	444535	329425	Fine without high winds	Dry	Daylight	Slight

Location: A50 CASTLE DONINGTON APPROX 500M E COUNTY BOUNDARY.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	W	E

Casualties:

Class	Severity
Vehicle Passenger	Slight
Vehicle Passenger	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400700	01/08/2024	449765	323875	Fine without high winds	Dry	Daylight	Fatal

Location: A6 SOUTHBOUND LONG WHATTON APPROX 250M S SOUTH LODGE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	N	S
Pedal Cycle (Including pedal assisted electric bicycles)	Not at, or within 20M of Jct	Starting	E	W

Casualties:

Class	Severity
Driver / Rider	Fatal

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

Notes:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400733	13/08/2024	444480	325280	Fine without high winds	Dry	Daylight	Slight

Location: A453 ASHBY ROAD CASTLE DONINGTON JW THE GREEN.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Jct Approach	Going ahead	W	E
Car	Leaving main road	Turning right	W	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight
Driver / Rider	Slight
Vehicle Passenger	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400838	12/09/2024	448485	318280	Raining without high winds	Wet/Damp	Daylight	Less serious

Location: A512 ASHBY ROAD EAST SHEPSHED AT EXIT FROM TRUCK STOP.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Entering main road	Turning left	N	E
Pedal Cycle (Including pedal assisted electric bicycles)	Mid Junction - on roundabout or main road	Going ahead	E	W

Casualties:

Class	Severity
Driver / Rider	Less serious

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400866	17/09/2024	442190	323080	Fine without high winds	Dry	Daylight	Fatal

Location: A453 BREEDON ON THE HILL JW MOOR LANE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Cleared junction or waiting/parked at junction exit	Going ahead	SE	N

Casualties:

Class	Severity
Driver / Rider	Fatal

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400916	27/09/2024	444730	327215	Fine without high winds	Dry	Daylight	Slight

Location: EASTWAY CASTLE DONINGTON OUTSIDE SCHOOL.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Not at, or within 20M of Jct	Going ahead	NW	SE

Casualties:

Class	Severity
Pedestrian	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400917	03/10/2024	444345	328210	Fine without high winds	Dry	Daylight	Slight

Location: TRENT LANE CASTLE DONINGTON JW MAPLE ROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	W	E
Car	Leaving main road	Turning right	E	N

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400930	05/10/2024	441870	323250	Fine without high winds	Dry	Darkness: no street lighting	Slight

Location: MOOR LANE TONGE (BREEDON ON THE HILL) JW DOVECOTE.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	SE	N

Casualties:

Class	Severity
Driver / Rider	Slight

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400967	15/10/2024	445410	329572	Fine without high winds	Dry	Darkness: street lights present and lit	Less serious

Location: LONDON ROAD LOCKINGTON-HEMINGTON AT A50 ROUNDABOUT.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Van / Goods 3.5 tonnes mgw and under	Jct Approach	Changing lane to left	NW	SE
Car	Not at, or within 20M of Jct	Going ahead	NW	SE

Casualties:

Class	Severity
Driver / Rider	Less serious

Accidents between dates **01/01/2019** **and** **23/10/2024** (70) months

Selection:

; Refined using Accidents within selected Polygons -Data Requests 2024 ("BWB East Midlands Airport 17.12.2024")

Notes:

Police_ref	Date	Easting	Northing	Weather	Road_cond	Visibility	Severity
202400994	18/10/2024	447535	328260	Fine without high winds	Dry	Daylight	Slight

Location: A50 SOUTHBOUND LOCKINGTON AT M1 SLIPROAD.

Vehicles:

Type	Junct_Locn	Manvres	Movef	Movet
Car	Mid Junction - on roundabout or main road	Going ahead	N	S
Car	Mid Junction - on roundabout or main road	Changing lane to right	N	S

Casualties:

Class	Severity
Driver / Rider	Slight
Vehicle Passenger	Slight

Number of records in selection: **151**

Appendix 3. Personal Injury Collision Data (M1 Junction 25 Derbyshire)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class						Casualties: Sev
1901537	Wednesday 02/10/2019	SANDIACRE, M1, A52 SLIP ROAD - (IPQA)	Veh 1	Goods > 7.5t	Change lane to right	S	to N		
R1: M 1	0715hrs		Veh 2	Car	Going ahead	S	to N	Dri	Slight
	Daylight:street lights present								
E 447,178	Dry								
N 335,964	Fine without high winds								
	70 mph								

V1 MOVES LANE AND COLLIDES WITH V2 - (IPQA).

2000689	Wednesday 20/05/2020	SANDIACRE - M1 split with exit slip road, S/B Jnc 25. (2022)	Veh 1	Car	Change lane to left	N	to S	Dri	Slight
R1: M 1	1655hrs								
R2: M 1	Daylight:street lights present								
E 447,195	Dry								
N 335,933	Fine without high winds								
	70 mph								

V1 ATTEMPTS TO GO FROM LN 2/3 INTO LN 1/3 TO LEAVE THE M/WAY. V1 CHANGING LANES FROM 2/3, BETWEEN TWO HGV'S IN LN 1/3 MISSES THE EXIT AND COLLIDES INTO ARMCO BARRIER BETWEEN M/WAY AND EXIT SLIP ON THE N/SIDE (2022)

2000691	Thursday 18/06/2020	SANDIACRE-M1 M/WAY S/B J25 (5894)	Veh 1	Car	Going ahead	N	to S	Dri	Slight
R1: M 1	1247hrs		Veh 2	Car	Going ahead	N	to S	FSP	Serious
	Daylight:street lights present								
E 447,192	Wet/Damp								
N 335,738	Raining without high winds								
	70 mph								

V1 LOSES CONTROL IN LANE 4 IN WET ROAD CONDITIONS AND COLLIDES WITH CENTRAL RESERVATION CAUSING IT VEER ACROSS THE M/WAY INTO LANE 1 AND DURING THIS COLLIDES WITH V2 (5894)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
2000942	Saturday	Long Eaton - A52 (IPQA)	Veh 1	Car	Going ahead	E to W	Dri	Fatal
	22/08/2020		Veh 1	Car	Going ahead	E to W	FSP	Fatal
R1: A 52	1655hrs							
	Daylight:street lights present							
E 446,584	Dry							
N 335,428	Fine without high winds							
	70 mph							

V1 TRAV WESTBOUND VEERS TO NEARSIDE FOR UNKNOWN REASONS AND GOES OFF ROAD INTO TREES BEFORE DEFLECTED BACK INTO ROAD. BOTH OCCS FATAL AT SCENE (16779)

2100240	Saturday	SANDIACRE - A52e J/W M1 R/B J25 Slip (2022)	Veh 1	Car	Going ahead	SW to NE	Dri	Slight
	24/10/2020		Veh 2	Car	Change lane to right	SW to NE	Dri	Serious
R1: A 52	1414hrs		Veh 2	Car	Change lane to right	SW to NE	FSP	Slight
R2: A 52	Daylight:street lights present							
E 447,645	Flood							
N 335,845	Raining without high winds							
	70 mph							

V2 S'ROAD MERGING A52 INTO L2. V1 AT SPEED A52 L2. V2 PANICKS,STEERS TO L1 & AQUAPLANES. V1 HITS N/S/BARRIER,REBOUNDS TO L2. V1 FNT COLLIDES REAR V2,V2 COLLIDES CNTRL BARRIER,VEERING TO N/S/BARRIER (2022)

2100547	Monday	SANDIACRE-M1 N/B EXIT SLIP RD J25 (5894)	Veh 1	Car	Change lane to right	SE to NW		
	29/03/2021		Veh 2	Car	Wait go ahead held	SE to NW	Dri	Slight
R1: M 1	1230hrs							
	Daylight:street lights present							
E 447,147	Dry							
N 335,483	Fine without high winds							
	60 mph							

V2 WAS STATIONARY AT T/LIGHTS IN LANE 2 ON N/B EXIT SLIP RD WHEN V1 MOVED INTO LANE 2 COLLIDING WITH R/N/S/ OF V2 (5894)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class				Casualties: Sev
2200373	Tuesday 01/03/2022 1630hrs	LONG EATON- SLIP ROAD NR TO MPOST,M1,A,193.1,J25 ASIDE (17706)	Veh 1	Car	Going ahead	SE to NW	
R1: M 1	Daylight:street lights present		Veh 2	Car	Wait go ahead held	SE to NW Dri	Slight
E 447,152	Dry						
N 335,314	Fine without high winds						
	60 mph						

V2 LEFT M1 TO JOIN A52, QUEUING TRAFFIC. V1 HAS APPROACHED FROM REAR AND HIT V2 ON THE REAR CAUSING DAMAGE AND MINOR INJURY TO DRIVER OF V2(17706)

2200565	Sunday 03/04/2022 1800hrs	SANDIACRE-R/ABOUT JCT 25 M1 J/W A52(17706)	Veh 1	Minibus	Change lane to left	SE to SW	
R1: A 52			Veh 2	Car	Going ahead	SE to NE Dri	Slight
R2: A 52	Daylight:street lights present						
E 447,105	Dry						
N 335,516	Fine without high winds						
	60 mph						

V2 MISSED TURN AND PROCEEDED TO GO AROUND R/ABOUT FOR SECOND TIME; V1 WAS IN WRONG LANE, CUT ACROSS THE PATH OF V2 AND COLLIDED WITH SAME (17706)

2200680	Saturday 23/04/2022 1304hrs	SANDIACRE-R/ABOUT A52 J/W BOSTOCKS LANE (17706)	Veh 1	Car	Going ahead	SE to NW	
R1: A 52			Veh 2	Car	Going ahead	SW to NE Dri	Slight
R2: C	Daylight:street lights present						
E 447,064	Dry						
N 335,607	Fine without high winds						
	60 mph						

V2 IN THE INSIDE LANE , V1 CAME OUT OF NO WHERE ON R/H SIDE STRAIGHT INTO V2, CUTTING ACROSS THE PATH OF V2; V2 LEFT THE SCENE WITHOUT STOPPING (17706)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class				Casualties: Sev
2200837	Thursday 19/05/2022 1622hrs	DERBY- A52 EXIT SLIP RD WESTBOUND TO M1 JCT 25 (17706)	Veh 1	Car	Going ahead	NE to SW	
			Veh 2	Car	Stopping	NE to SW Dri	Slight
R1: A 52			Veh 2	Car	Stopping	NE to SW FSP	Slight
R2: A 52	Daylight:street lights present		Veh 3	Car	Stopping	NE to SW	
E 447,521	Dry						
N 335,753	Fine without high winds						
	70 mph						

V1 APPROACHING EXIT SLIP TO J25. FAILS TO SEE V2 AND V3 ALREADY STATIONARY DUE TO BUILD UP OF TRAFFIC ON EXIT SLIP V1 COLLIDES WITH REAR OF V 2, WHICH IS PUSHED FORWARD INTO REAR OF V3(17706)

2201068	Friday 24/06/2022 1600hrs	SANDIACRE-A52 R/ABOUT J/W BOSTOCK'S LANE (17706)	Veh 1	Car	Change lane to left	SW to NE	
			Veh 2	Taxi	Going ahead	SW to NE Dri	Slight
R1: A 52			Veh 2	Taxi	Going ahead	SW to NE FSP	Slight
R2: C	Daylight:street lights present						
E 447,077	Dry						
N 335,622	Fine without high winds						
	60 mph						

V2 ON R/ABOUT AND MOVED OFF FROM GREEN T/LIGHTS WHEN V1 OVERTOOK V2 AND CHANGED LANES; PROCEEDED THEN TO CHANGE LANES AGAIN AND THEN COLLIDED WITH V2; V1 FAILED TO STOP AND EXCHANGE DETAILS(17706)

2300341	Sunday 26/02/2023 1220hrs	SANDIACRE-A52 R/ABOUT J/W BOSTOCK'S LANE (17706)	Veh 1	Car	Going ahead	NW to NE Dri	Slight
			Veh 1	Car	Going ahead	NW to NE FSP	Slight
R1: A 52			Veh 2	Car	Going ahead	NW to NE	
R2: U	Daylight:street lights present						
E 447,100	Dry						
N 335,650	Fine without high winds						
	60 mph						

V1 WAS TRAVELLING DOWN BOSTOCKS LANE TO J/W R/ABOUT WHEN V2 COLLIDED WITH THE REAR OF V1 CAUSING SLIGHT INJURY/DAMAGE(17706)

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class					Casualties: Sev
2301064	Friday 28/04/2023	SANDIACRE - M1 EXIT SLIP ROAD (DQ)	Veh 1	Car	Going ahead	S to N	Ped	Fatal
R1: M 1	0442hrs							
	Darkness: street lights present a							
E 447,159	Wet/Damp							
N 335,356	Raining without high winds							
	70 mph							

UNKNOWN VEHICLE HAS COLLIDED WITH MALE PEDESTRIAN IN UNKNOWN CIRCUMSTANCES EARLY AM, ON THE NORTHBOUND EXIT SLIP ROAD IN LANE 2. (INVESTIGATION RETAINED BY NOTTS POLICE (DQ)

2301120	Saturday 22/07/2023	SANDIACRE- M1 EXIT SLIP RD J/W A52 (18144)	Veh 1	Car	Going ahead	NW to SE	FSP	Serious
			Veh 1	Car	Going ahead	NW to SE	Dri	Serious
R1: A 52	0400hrs							
R2: M 1	Darkness: street lights present a							
E 447,268	Wet/Damp							
N 335,707	Raining without high winds							
	70 mph							

V1 TRAVELLING AT EXCESSIVE SPEED FAILS TO STOP AT JUNCTION AND COLLIDES WITH FURNITURE AND TREES CAUSING SERIOUS INJURIES (18144).

2301337	Sunday 27/08/2023	SANDIACRE - A52 (E) ENTRY S/RD - APPROX 1M N/E L/POST EL1465 - W3W ///JAWS.SPARKLES.MODEST	Veh 1	Car	Going ahead	SW to NE	Dri	Serious
			Veh 2	Car	Going ahead	SW to NE		
R1: A 52	1150hrs							
R2: A 52	Daylight:street lights present							
E 447,381	Dry							
N 335,738	Fine without high winds							
	70 mph							

DRIVER OF V1 REPORTS BEING CUT UP BY V2 CAUSING HIM TO TAKE EVASIVE ACTION - LEFT C/WAY N/SIDE AND ROLLED (5869) K

Details of Personal Injury Accidents for Period - **01/08/2019** **to** **31/07/2024** (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref. / Road No. / 2nd Road No. / Grid Ref.	Day / Date / Time / D/L / R.S.C / Weather / Speed / Account of Accident	Location Description	Vehicles: Veh No / Type / Manv / Dir / Class						Casualties: Sev
2400013 **R1: M 1** **R2: M 1** **E 447,206** **N 335,261**	Sunday 05/11/2023 1410hrs Daylight:street lights present Dry Fine without high winds 70 mph	SANDIACRE - M1 J/W M1 STH ENTRY S/RD (5869)	Veh 1 Veh 2	Car Goods Unknown C	Going ahead Change lane to left	N to S N to S	Dri		Slight
	VEHICLE 1 MOVED INTO LANE 1 ON THE MOTORWAY AND COLLIDED WITH VEHICLE 2								
2400014 **R1: A 52** **R2: M 1** **E 447,262** **N 335,719**	Wednesday 22/11/2023 2030hrs Darkness: street lighting unkno Dry Unknown 60 mph	SANDIACRE - M1 S/RD J/W M1/A52 R/BT JCTN 25 (5869)	Veh 1 Veh 2	Car Car	Wait go ahead held Going ahead	N to SE N to SE	Dri		Slight
	V2 COLLIDED WITH REAR OF V1								
2400296 **R1: A 52** **E 446,870** **N 335,495**	Thursday 22/02/2024 1645hrs Darkness: street lights present a Wet/Damp Fine without high winds 70 mph	RISLEY- BRIAN CLOUGH WAY EASTBOUND NR TO EXIT JCT 25 M1 (18144)	Veh 1 Veh 2	Car Car	Going ahead Stopping	W to E W to E	Dri		Slight
	V1 COLLIDED WITH THE REAR OF V2 IN SLOW MOVING TRAFFIC CAUSING SLIGHT INJURIES (18144).								

Appendix 4. Personal Injury Collision Data (A453 Remembrance Way Nottinghamshire)

Accident Details Report

Total number of reports = **7**

Total number of pages (including this page) = **8**

ROAD TRAFFIC INJURY ACCIDENT RECORDS - DISCLAIMER

These details are a record of the personal injury accidents reported to the Police. Every endeavour is made to ensure the accuracy and completeness of these records, which have been transcribed from the original Police Reports. The data is then entered and held on computer.

Occasions may arise when information from the Police, relevant to a particular accident, may not be available for several months and will therefore not be included.

No. 1	District Rushcliffe	Accident Details	VRUs	Grid Reference 449645 / 328936
SEVERITY SLIGHT	Ref.No 2D184622			Police Officer Attend: Yes

Date	07/10/2022	Day Friday	ROAD U
Time	20:51		LOCATION U/C KEGWORTH ROAD, at its Junction with U/C MAIN STREET, RATCLIFFE-ON-SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/no lights		

SITE DETAILS	
Speed Limit	30 MPH
Carriageway	Single c'way
Lane markings	Centre/hazard line
Junction Detail	T or Staggered junction
Junction Control	Give way sign or uncontrolled
2nd Road Number	U
Pedestrian Facilities	No Human control within 50m
and	No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car
Manoeuvre Going ahead right hand bend
Direction from South west to North east Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Mid junction
Veh left carriageway? Left c'way Offside
Hit object in c'way? None
Hit object off c'way? Tree
First point of impact Front
Drivers age 59 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Positive
Journey purpose

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 59 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 2	District Rushcliffe	Accident Details	VRUs	Grid Reference 450026 / 329311
SEVERITY SLIGHT	Ref.No 2D019922			Police Officer Attend: Yes

Date	06/02/2022	Day Sunday	ROAD U
Time	20:03		LOCATION U/C GREEN LANE, 0 metres from A453T REMEMBRANCE WAY (OVERBRIDGE), 260 Meters west of KEGWORTH ROAD RBT, RATCLIFFE ON SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/lights lit		

Speed Limit	30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from North west to South east		Towing? No			
Skidded No					
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Drivers age 23 yrs	Sex Male	Other veh.hit (ref.) 2		Hit and run No	
Foreign vehicle	Not foreign			Breath test Not requested	
Journey purpose	Other/Not known				

Veh.No. 2	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from South east to North west		Towing? No			
Skidded No					
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Offside				
Drivers age 26 yrs	Sex Male	Other veh.hit (ref.) 1		Hit and run No	
Foreign vehicle	Not foreign			Breath test Not requested	
Journey purpose	Other/Not known				

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Driver or Rider		Veh ref No 2
Severity SLIGHT	Age 26 yrs	Sex Male	
Car Passenger? No		PSV Passenger? No	
Ped Movement	Not a pedestrian		
Ped location	Not a pedestrian		
Ped Direction to	Not a pedestrian		
School Pupil	Other		
Roadworker injured	No		

No. 3	District Rushcliffe	Accident Details	VRUs	Grid Reference 450057 / 329270
SEVERITY SLIGHT	Ref.No 2D012221			Police Officer Attend: Yes

Date	24/01/2021	Day Sunday	
Time	13:58		
Weather	Snow		
Road Surface	Snow		
Street Lighting	Daylight		

ROAD U

LOCATION U/C KEGWORTH ROAD RBT, at its Junction with U/C KEGWORTH ROAD, RATCLIFFE-ON-SOAR, NOTTINGHAMSHIRE

SITE DETAILS	
Speed Limit	30 MPH
Carriageway	Roundabout
Lane markings	Centre/hazard line
Junction Detail	Roundabout
Junction Control	Give way sign or uncontrolled
2nd Road Number	U
Pedestrian Facilities	No Human control within 50m
and	No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car
Manoeuvre Turning right
Direction from North to West Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Entering roundabout
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? Lamp post
First point of impact Front
Drivers age 22 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 22 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 4	District Rushcliffe		VRUs	Grid Reference 450271 / 329460
SEVERITY **SLIGHT**	Ref.No 2D252119	**Accident Details**		Police Officer Attend: Yes

Date	19/12/2019	Day Thursday	ROAD A453
Time	03:23		LOCATION A453 REMEMBRANCE WAY, 1230 metres northeast of RATCLIFFE LANE, RATCLIFFE ON SOAR
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/lights lit		

SITE DETAILS	
Speed Limit	70 MPH
Carriageway	Dual c'way
Lane markings	Centre/hazard line
Junction Detail	Not at or within 20m of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Goods > 7.5t
Manoeuvre O/T moving vehicle on its O/S
Direction from South west to North east Towing? Articulated veh.
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Drivers age 30 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Journey as part of work

Veh.No. 2 Vehicle type Car
Manoeuvre Going ahead other
Direction from South west to North east Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? Central crash barrier
First point of impact Offside
Drivers age 58 yrs Sex Female Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity **SLIGHT** Age 58 yrs Sex Female
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 5	District Rushcliffe	Accident Details	VRUs Motorcycle	Grid Reference 450324 / 329474
SEVERITY SERIOUS	Ref.No 2D077923			Police Officer Attend: Yes

Date	28/05/2023	Day Sunday	
Time	19:30		
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

ROAD A453

LOCATION A453 REMEBRANCE WAY, 1000 metres southwest of WEST LEAKE LANE (UNDERPASS), RATCLIFFE ON SOAR

SITE DETAILS	
Speed Limit	70 MPH
Carriageway	Dual c'way
Lane markings	Centre/hazard line
Junction Detail	Not at or within 20m of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities and	No Human control within 50m No crossing facility within 50m

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type M/cycle > 500cc
Manoeuvre Going ahead other
Direction from North east to South west Towing? No
Skidded Yes
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Left c'way near-side
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Drivers age 20 yrs Sex Male Other veh.hit (ref.) 0 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SERIOUS Age 20 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

No. 6	District Rushcliffe		VRUs Motorcycle	Grid Reference 451179 / 330154
SEVERITY FATAL	Ref.No 2D016022	**Accident Details**		Police Officer Attend: Yes

Date	04/05/2022	Day Wednesday	ROAD A453
Time	04:48		LOCATION A453 REMEMBRANCE WAY, 90 metres northeast of WEST LEAK LANE (UNDERBRIDGE), THRUMPTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Dark/no lights		

Speed Limit	50 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Dual c'way		CARRIAGEWAY HAZARDS: None
Lane markings	Centre/hazard line		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1	Vehicle type Car				
Manoeuvre	Going ahead other				
Direction from	South west to North east	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Drivers age	20 yrs	Sex	Male	Other veh.hit (ref.)	2
Foreign vehicle	Not foreign			Hit and run	No
Journey purpose	Commuting to/from work			Breath test	Negative

Veh.No. 2	Vehicle type M/cycle 50 - 125cc				
Manoeuvre	Going ahead other				
Direction from	South west to North east	Towing?	No		
Skidded	No				
Veh location at impact (restricted lane)	On main carriageway				
Junct. location of veh. at 1st impact	Not at junction				
Veh left carriageway?	Did not leave c'way				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Drivers age	62 yrs	Sex	Male	Other veh.hit (ref.)	1
Foreign vehicle	Not foreign			Hit and run	No
Journey purpose	Commuting to/from work			Breath test	Not provided

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Driver or Rider			Veh ref No	2
Severity FATAL	Age 62 yrs	Sex	Male		
Car Passenger?	No	PSV Passenger?	No		
Ped Movement	Not a pedestrian				
Ped location	Not a pedestrian				
Ped Direction to	Not a pedestrian				
School Pupil	Other				
Roadworker injured	No				

No. 7	District Rushcliffe	Accident Details	VRUs	Grid Reference 451586 / 330854
SEVERITY SLIGHT	Ref.No 2D069821			Police Officer Attend: Yes

Date	13/06/2021	Day Sunday	ROAD U
Time	10:57		LOCATION U/C BARTON LANE, 115 metres southwest of CHURCH LANE, THRUMPTON
Weather	Fine		
Road Surface	Dry		
Street Lighting	Daylight		

Speed Limit	30 MPH	SITE DETAILS	SPECIAL SITE CONDITIONS: None
Carriageway	Single c'way		CARRIAGEWAY HAZARDS: None
Lane markings	None		
Junction Detail	Not at or within 20m of junction		
Junction Control			
2nd Road Number			
Pedestrian Facilities	No Human control within 50m		
and	No crossing facility within 50m		

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car
Manoeuvre Going ahead other
Direction from South west to North east Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Drivers age 86 yrs Sex Male Other veh.hit (ref.) 2 Hit and run No
Foreign vehicle Not foreign Breath test Not requested
Journey purpose Other/Not known

Veh.No. 2 Vehicle type Agric Veh
Manoeuvre Waiting to go ahead but held up
Direction from North east to South west Towing? No
Skidded No
Veh location at impact (restricted lane) On main carriageway
Junct. location of veh. at 1st impact Not at junction
Veh left carriageway? Did not leave c'way
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Drivers age 50 yrs Sex Male Other veh.hit (ref.) 1 Hit and run No
Foreign vehicle Not foreign Breath test Negative
Journey purpose Journey as part of work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 86 yrs Sex Male
Car Passenger? No PSV Passenger? No
Ped Movement Not a pedestrian
Ped location Not a pedestrian
Ped Direction to Not a pedestrian
School Pupil Other
Roadworker injured No

APPENDIX 15: HGV Route Plan (document reference EMG2-BWB-GEN-XX-RP-TR-00016_S2-P3)

PROJECT NAME	**East Midlands Gateway Phase 2 – HGV Route Plan**		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0016	**BWB REF**	220500
AUTHOR	Matt Corner	**STATUS**	S2
CHECKED	Paul Wilson	**REVISION**	P3
APPROVED	Matt Corner	**DATE**	14/05/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development, located to the south of East Midlands Airport near the village of Diseworth, Leicestershire. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 The site is located near the Strategic Road Network (SRN), in close proximity to M1 Junctions 23a and 24 and therefore suitably located for access to the M1, A453, A50, A6 and A42. This Technical Note presents the HGV Route Plan and sets out the permitted route options for HGVs travelling to/from the site, with the aim of promoting and managing the desirable routes for all HGVs during the operational phase of the development. The details in this HGV Route Plan will be taken on board by all occupiers of EMG2.

1.3 As part of the Transport Assessment, a scheme to mitigate the impacts of the EMG2 development are being identified, with a scheme at M1J24 identified for EMG2 and is currently in the process of being finalised through traffic modelling work. The initial scheme has been designed using outputs from the Pan Regional Transport Model (PRTM), which is a strategic highway assignment model that distributes HGVs to the road network based on an in-built gravity model, considering desirable routes, congestion levels and road weight restrictions. The details within this HGV Routing Plan align with the principles of the PRTM, wider traffic assessment work and mitigation strategy.

2. EXISITNG CONDITIONS

Site Details

2.1 The main site is located to the south of the A453 and East Midlands Airport to the east of the village of Diseworth within the administrative area of North West Leicestershire. It has an area of approximately 250 acres, comprising arable farmland and is located approximately 15 kilometres to the northwest of Loughborough, 25 kilometres to the southeast of Derby and 25 kilometres to the southwest of Nottingham. The proposals also involve delivering a smaller unit on Plot 16 of EMG1 to the north of East Midlands Airport.

2.2 The site is bound to the north by the A453, which connects to the Strategic Road Network via Junction 23a of the M1 (at Finger Farm roundabout) to the east of the site. Beyond this to the north is East Midlands Airport and north of the Airport is Sego's EMG Phase 1 development. Donington Park services is located immediately adjacent to the

northeast corner of the site. The site is bisected by Hyam's Lane which is a Public Footpath that extends from Diseworth Village to the southwest to the western boundary of the Donington Park services to the northeast. **Figure 1** shows the site location.

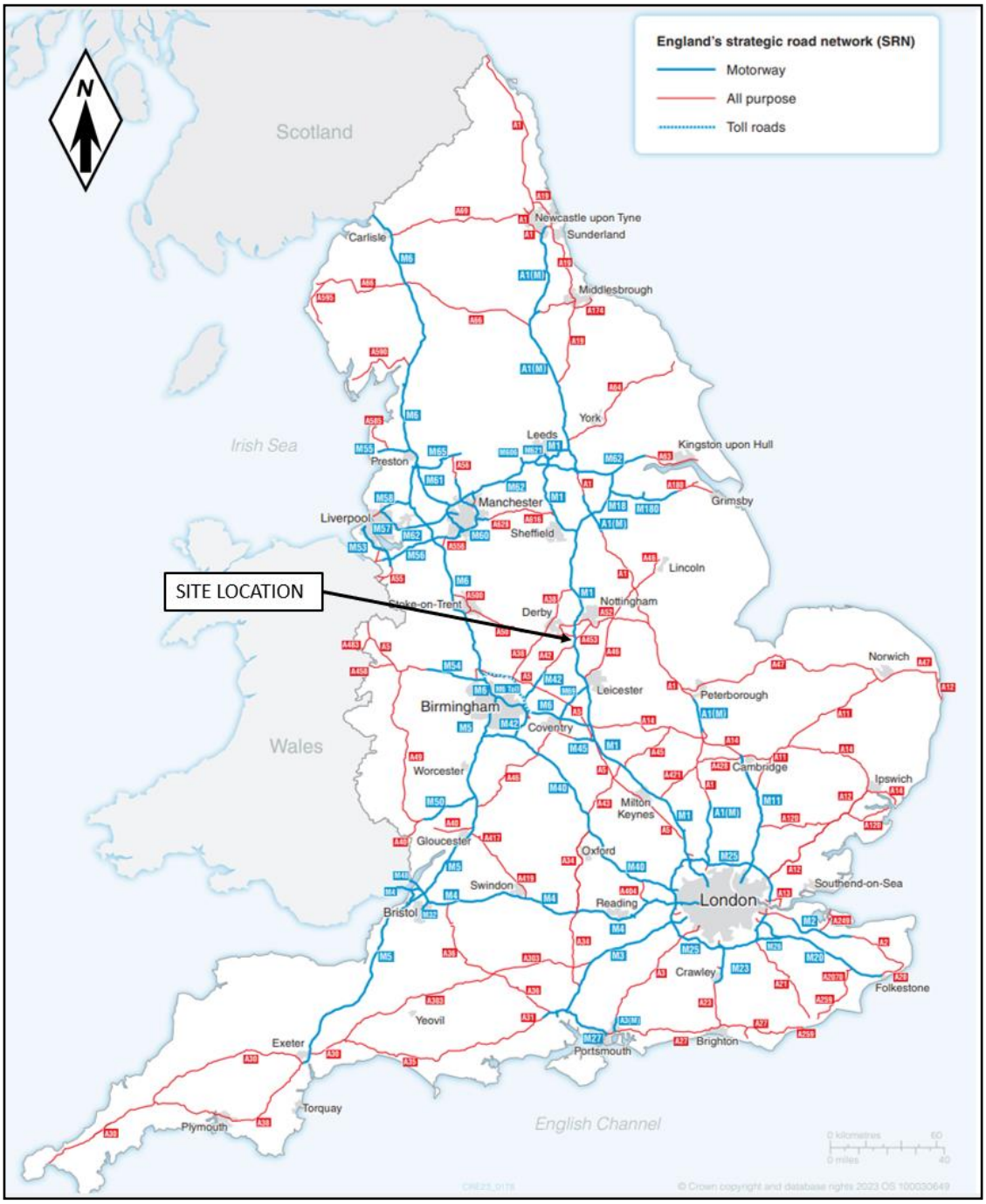
Figure 1. Site Location



Highway Network

2.3 The site location in relation to the SRN is shown at **Figure 2**. The central location of the site within the UK and its proximity to M1 Junction 23a and M1 Junction 24 provides excellent connections with the rest of the country via the M1, A453, A50, A6 and A42.

Figure 2. Strategic Road Network



M1 Motorway

2.4 The M1 Motorway is a strategic route for local, regional and international traffic and plays an important role in connecting major settlements within the north and south of the UK. In 2019, the section of the motorway between Junctions 23a and 25 was upgraded as part of the Smart Motorways Programme to provide four lanes in either direction by converting the hard shoulders into running lanes.

Junction 24 of the M1

2.5 Junction 24 of the M1 is a large grade separated, partially signal-controlled roundabout, providing all movements to and from the motorway, as well as connections to the A453 and A50. The A453, which links the motorway with Nottingham via Clifton, joins from the northeast, with the A453 link towards the site joining from the southwest, which also extends towards Junction 23a of the M1 and the A42. The A50, which links the motorway with Derby joins from the northwest. The A453 arm from the southwest features a segregated left turn towards the A50.

A453 between M1 Junction 24 and J23a

2.6 The A453 to the southwest of M1 Junction 24 extends north to south and parallel to the M1 Motorway, forming a signal-controlled junction with the EMG1 signal-controlled gyratory before continuing south to Finger Farm roundabout at M1 Junction 23a, providing access to the M1 southbound and A42. Along this section, the A453 comprises a dual carriageway with two lanes in either direction and provides an alternative route choice for drivers travelling towards the A6, A50 and A453 eastbound, as well as providing a shorter route to the A453 westbound towards the site.

M1 Junction 23a, Finger Farm Roundabout

2.7 The Finger Farm junction is a large 4-arm priority-controlled roundabout. The A453 arms join from the north and west, whilst slip roads to the A42 and M1 join to the south. It also provides an access to the Donington Park Services to the southwest. As part of an approved planning application 18/02227/FULM, referred to as 'East Midlands Point', a fifth arm is being created at the eastern side of Finger Farm Roundabout to serve an employment development.

A453/A6 Kegworth Road Bypass Signal-Controlled Gyratory

2.8 The A453/A6 Kegworth Bypass is a large signal-controlled gyratory that provides access into EMG1. The A453 (south) arm provides two ahead lanes towards M1 Junction 24 and a single right turn lane to the A6 Kegworth Bypass that operate under the same green signal, along with a separately signalled left turn lane into EMG1. The A453 (north) arm provides three lanes approaching the gyratory, whilst the EMG1 arm provides two lanes turning left towards M1 Junction 24 (single lane with short flare) and two lanes for movements ahead onto the circulatory, again comprising a single lane with short flare. The A6 Kegworth Bypass arm provides a single lane approach widening into a short left/ahead flare at the stop line.

A50

2.9 The A50 is a dual carriageway extending to the northwest from M1 Junction 24. Traffic travelling southbound on the M1 can also join the A50 at Junction 24a slightly further north. The A50 continues west from M1 Junction 24 as a dual carriageway extending west towards Derby, whilst also providing access to the A38 in both directions at A50 Junction 4.

A42

2.10 The A42 extends to the southwest from M1 Junction 23a connecting with the M42 before continuing towards Birmingham. In the vicinity of M1 Junction 23a, the A42 comprises a dual carriageway providing two lanes in either direction.

A453 towards Nottingham

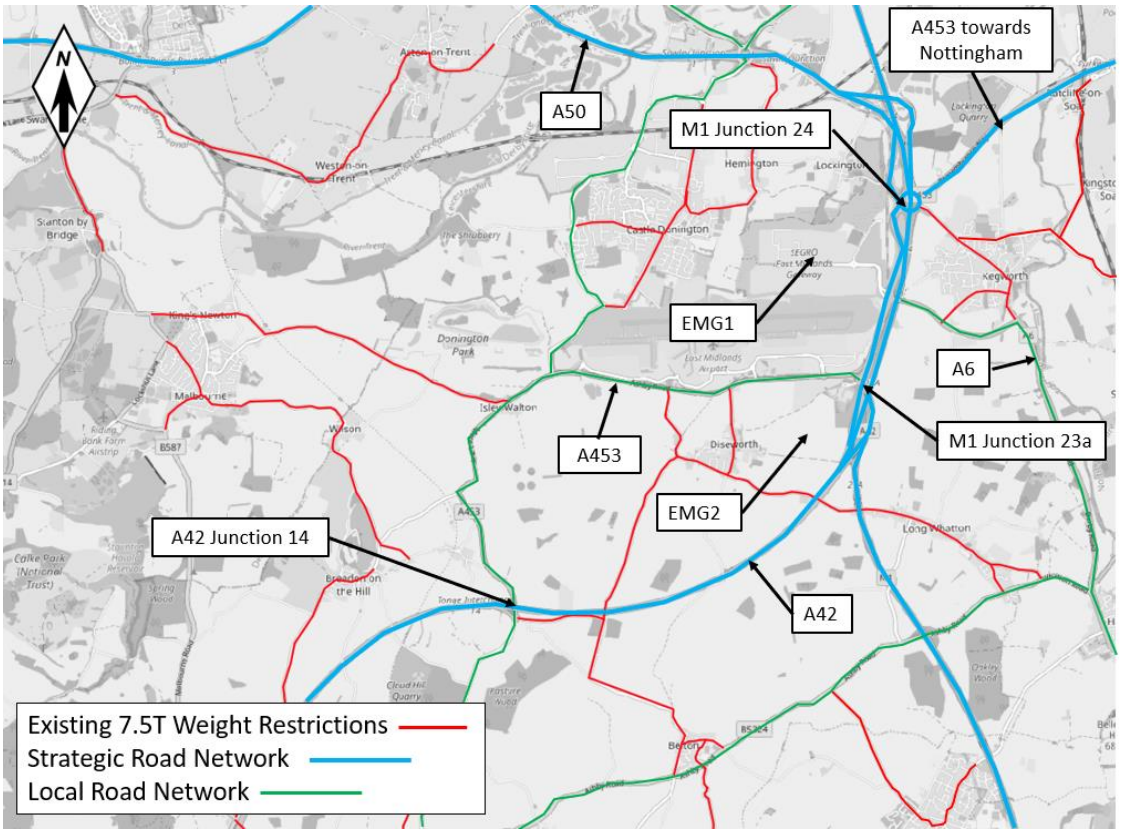
2.11 The A453 link between M1 Junction 24 and the A52 near Nottingham was upgraded in 2015 to provide an 11.5-kilometre section of dual carriageway that replaced the former single carriageway road. The purpose was to alleviate congestion and highway safety issues. Various junctions along the route between M1 Junction 24 and Mill Hill Roundabout near the Clifton South Park and Ride were also upgraded to split level to facilitate free flowing traffic. This route now acts as a main distributor road between Nottingham and the M1, A50 and A42.

Existing Weight Restrictions / Permitted Routes

2.12 Many of the roads leading into villages surrounding the site feature 7.5T weight restrictions, including the following (**Figure 3** shows the road locations):

- Hill Top & High Street, Castle Donington
- Grimes Gate & The Green, Diseworth, leading to Long Whatton
- Derby Road, Kegworth
- Melbourne Road, Melbourne
- Kegworth Road, Ratcliffe on Soar

Figure 3. Existing Weight Restrictions



2.13 The benefit of the existing weight restrictions is that future HGV movements generated by the EMG2 development will naturally be forced to use the more strategic roads, meaning there should be limited impacts within local villages from additional HGV movements.

2.14 The roads shown in blue and green in **Figure 3** represent the routes that operational HGVs associated with EMG2 would be permitted to use (except in the needs of access). This will be enforced through the existing weight restrictions. Segro's management team at EMG1 have only been contacted on two occasions with complaints of HGVs travelling on roads with weight restrictions, one that was legitimate and another that was not. On this basis, it is evident that there are no existing issues with HGVs associated with EMG1.

3. PROPOSED DEVELOPMENT

Scale and Layout

3.1 The EMG2 development seeks outline planning permission for a 430,000sqm B2/B8 industrial development, comprising 300,000sqm of ground floorspace and 100,000sqm of mezzanine floorspace at EMG2 plus 30,000sqm of B8 development at EMG1. The EMG2 development would be served a fourth arm from the existing A453/Hunter Road roundabout located to the west of Finger Farm roundabout, to the south of East Midlands Airport.

Parking

3.2 HGV parking for all units will be provided in accordance with LCC Highways Design Guide for both B2 and B8 uses. This requires one space per 400sqm of B2/B8 floorspace. The parking standards for various vehicle types is provided in **Table 1**.

Table 1. Leicestershire Parking Standards

Cars	Disabled	HGV	Motorcycles	Bicycle	Electric Vehicles
B2 Land Use					
One space for every 150sqm	Six bays plus 2% of total parking spaces (when total over 200 spaces	**One lorry space for every 400sqm**	One space, plus an additional space for every 10 car parking spaces	One space for every 400sqm	Not specified
B8 Land Use					
One space for every 55sqm	Six bays plus 2% of total parking spaces (when total over 200 spaces	**One lorry space for every 400sqm**	One space, plus an additional space for every 10 car parking spaces	One space for every 400sqm	Not specified

Trip Generation and Distribution

3.3 The agreed trip generation for the EMG2 development is set out in **Table 2**. The calculations are based on original trip rates adopted as part of the EMG1 planning application and separate movements by light vehicles and HGVs.

Table 2. Proposed Development Traffic Generation

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
340,000sqm B8 development at EMG2						
Total	476	122	598	221	527	748
HGVs	**65**	**78**	**143**	**85**	**51**	**136**
30,000sqm B8 development at Plot 16 of EMG1						
Total	42	11	53	20	47	67
HGVs	**6**	**7**	**13**	**8**	**5**	**13**
60,000sqm B2 development at EMG2						
Total	235	43	278	30	222	252
HGVs	**10**	**8**	**18**	**2**	**4**	**6**
Total 430,000sqm development						
Total	753	176	929	270	795	1,065
HGVs	**81**	**93**	**174**	**95**	**60**	**155**

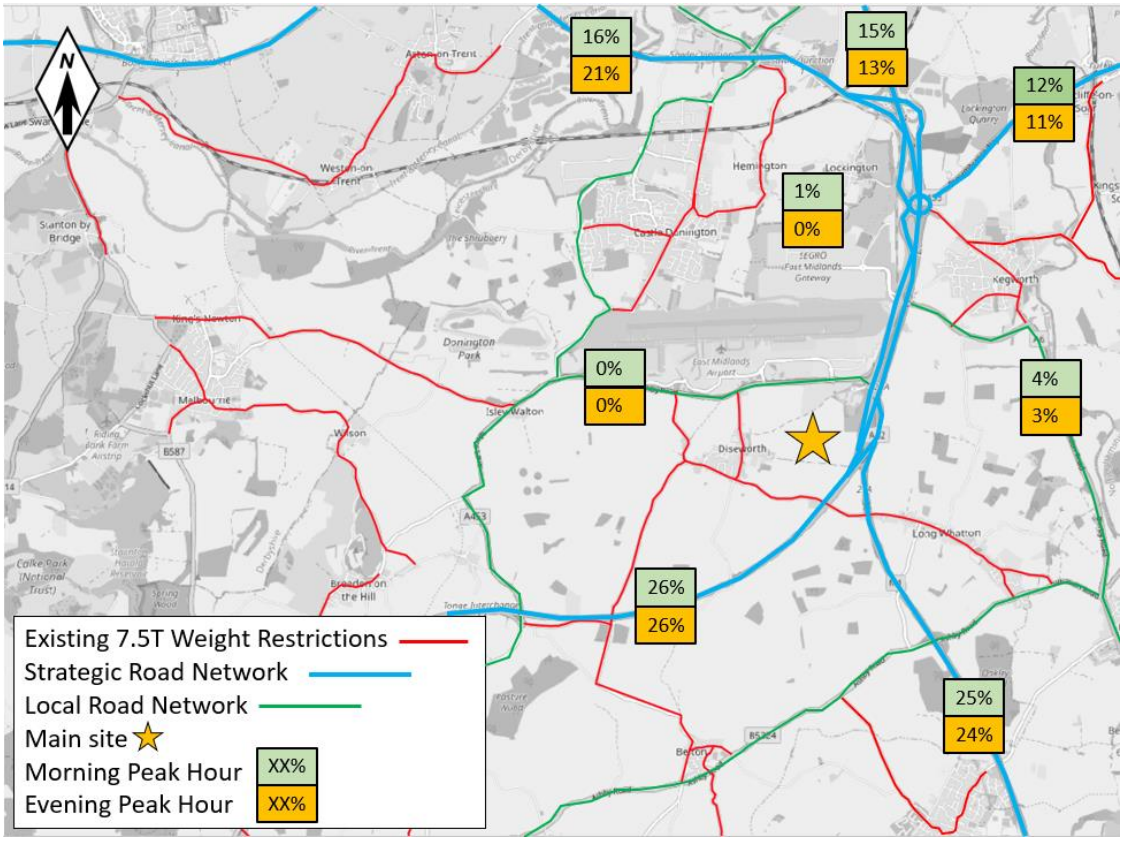
3.4 The calculations show that the development in its entirety is expected to generate 174 HGVs in the morning peak hour and 155 HGVs in the evening peak hour.

3.5 The PRTM has been used to assess the strategic highway impacts of the proposed development. HGV movements have been assigned to the network based on the in-built gravity model within the PRTM, which takes account of desirable routes and the existing weight restrictions in the local area, shown on **Figure 3**. **Table 3** shows the HGV traffic distribution from PRTM, which is visually depicted on **Figure 4**.

Table 3. Development HGV Distribution Pattern

	AM Peak Hour	PM Peak Hour
A50	16%	21%
M1 (N)	15%	13%
A453 (E) towards Nottingham	12%	11%
A6 Kegworth Bypass	4%	3%
M1 (S)	25%	24%
A42	26%	26%
A453 west of site	0%	0%
EMG1	1%	0%
Total	**100%**	**100%**

Figure 4. HGV Distribution Pattern



3.6 The details show that HGV movements within PRTM are assigned along the strategic highway routes and avoid travelling through local villages. There are no HGVs expected to route to the west of the site along the A453, even when accounting for the new alignment proposed as part of the Isley Woodhouse development. Whilst the A453 is considered suitable in accommodating HGVs, as a route to the A42, this will limit the impacts of HGV movements around the Isley Woodhouse settlement.

4. HGV ROUTING STRATEGY

Permitted Routes

4.1 The permitted routes for HGVs associated with the EMG2 development are set out below. These follow the SRN and take into consideration existing weight restrictions in the local area.

<u>To the north</u>

- A453 (E), M1 northbound
- A453 (E), A453 eastbound towards Nottingham

To the east

- A453 (E), A6

To the south

- A453 (E), M1 southbound
- A453 (E), A42
- A453 (W), A42 via Junction 14 (albeit PRTM does not assign HGVs in this direction)

To the west

- A453 (E), A50 westbound
- A453 (W), Castle Donington western bypass, A50 westbound via Junction 1 (albeit PRTM does not assign HGVs in this direction)

4.2 All HGV drivers associated with EMG2 will be required to use the above routes for all journeys, with the exception of access requirements to local villages. These routes are shown on **Figure 3** and denoted by those in blue and green.

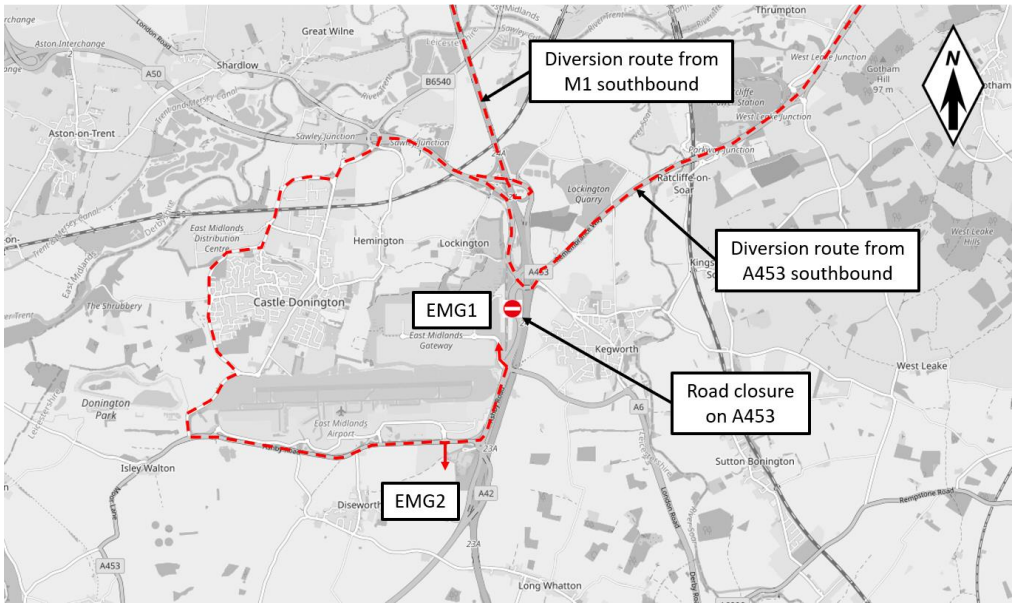
Diversion Routes

4.3 In the event that various parts of the Strategic Road Network are temporarily closed, then HGVs would have alternative route choices to reach the site, which is supported by the A453 that extends parallel to the M1 Motorway between M1 Junction 23a and M1 Junction 24, alongside other strategic connections to the A50 and A6. Details of the HGV diversion routes are provided below.

Closures on the A453 at M1 Junction 24

4.4 Should the A453 southbound arm between M1 Junction 24 and J23a be closed, then HGVs travelling along the M1 southbound or A453 from Nottingham would divert along the A50 from M1Junctions 24/24A to A50 Junction 1 and then south around the Castle Donington bypass to reach the site. The direct route for HGVs travelling from all other directions would remain unchanged. **Figure 5** shows the diversion route.

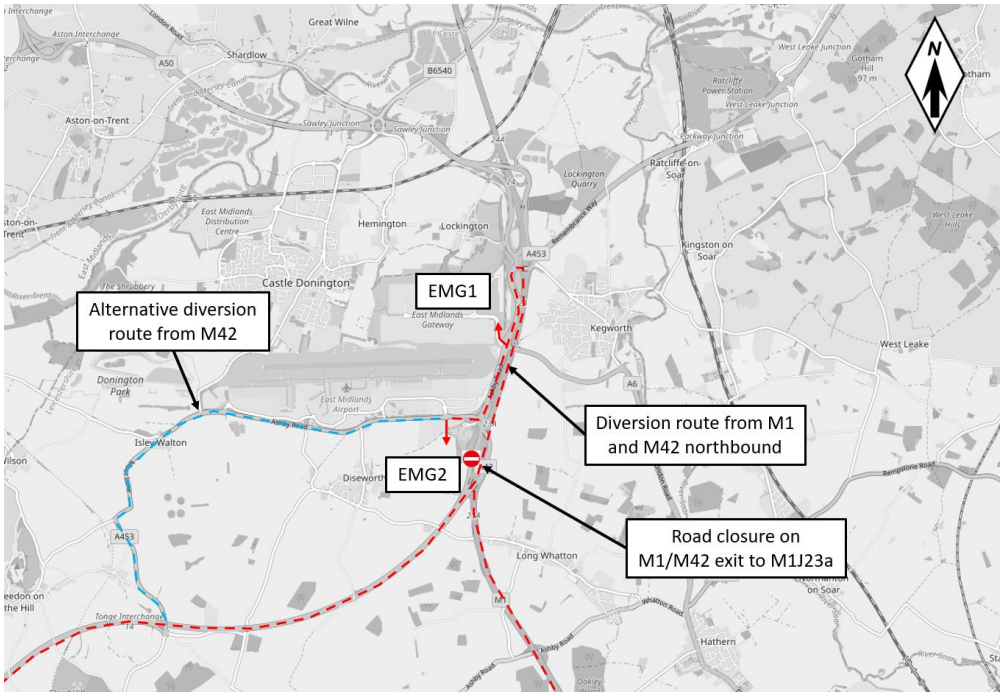
Figure 5. HGV Diversion Route (A453 southbound closure between M1 J24 and J23a)



Closures on the A42 & M1 slip roads at M1 Junction 23a

4.5 Should the A42 and M1 exit slip roads at M1 Junction 23a be closed, then HGVs travelling along the M1 or A42 northbound would divert to M1 Junction 24 and then south along the A453 to reach the site. Alternatively, HGVs travelling along the A42 could exit at A42 Junction 14 and travel along the A453 to reach the site. **Figure 6** shows the diversion route.

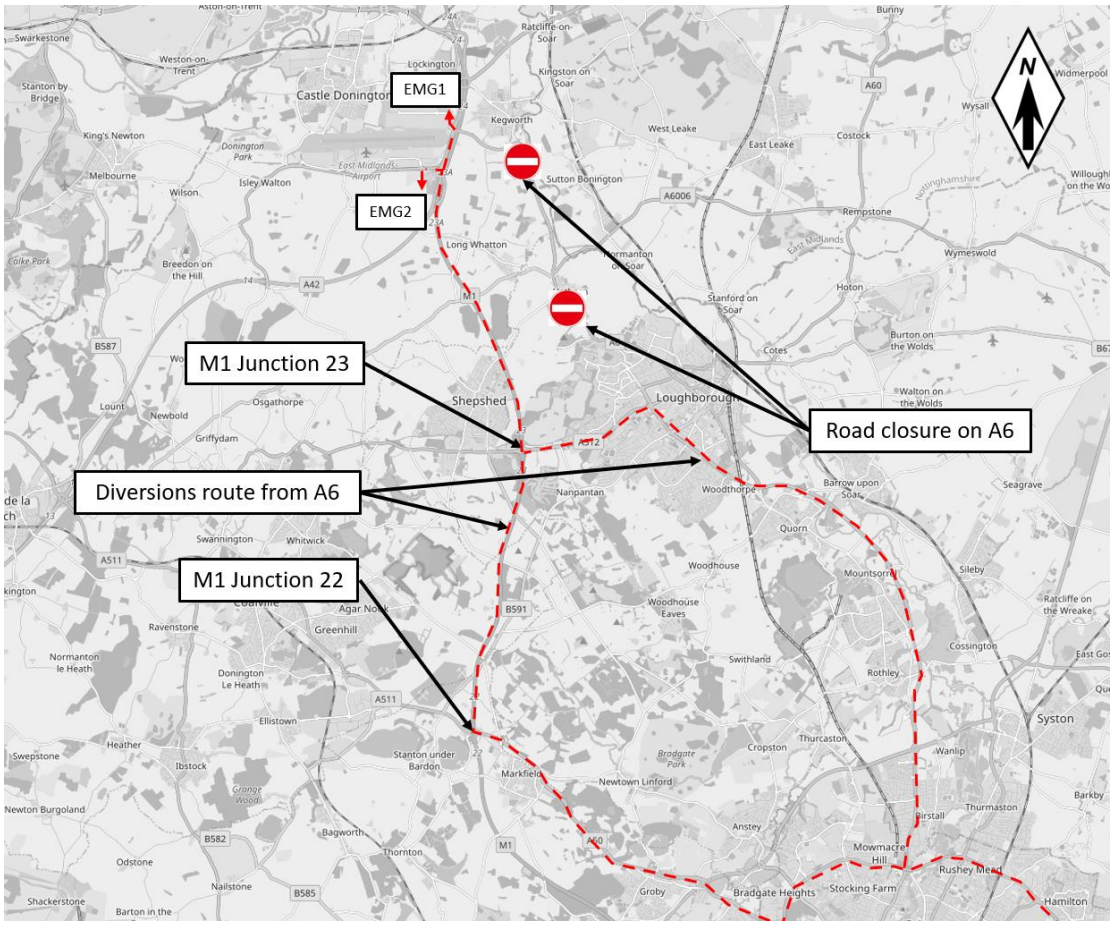
Figure 6. HGV Diversion Route (A453 northbound closure to J23a)



Closures on the A6

4.6 Should the A6 be closed, then HGVs travelling from Leicester or Loughborough could divert along the A512 past Loughborough to M1 Junction 23. Should an issue be identified earlier on in the journey, then there is an alternative diversion route via the A46 Leicester Western Bypass to the A50 Markfield Road before joining the M1 northbound at Junction 22. HGVs could then access the site via M1 Junction 23a or M1 Junction 24. **Figure 7** shows the diversion route.

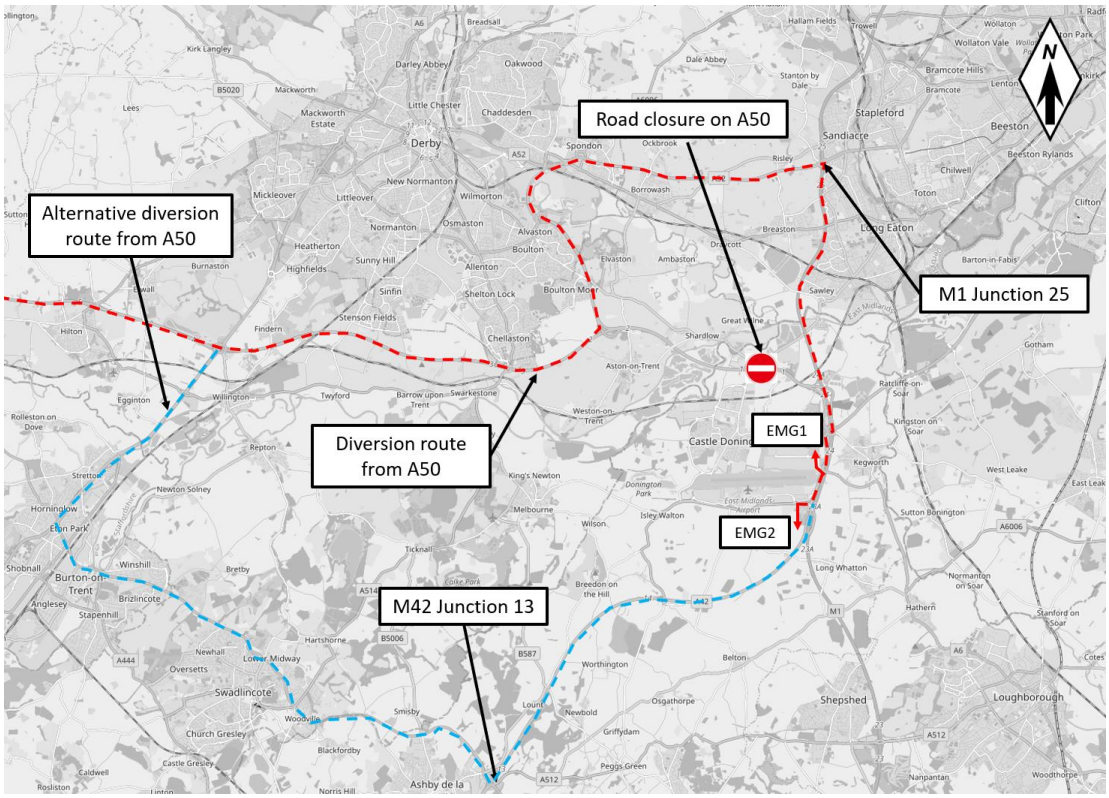
Figure 7. HGV Diversion Route (A6 closure)



Closures on the A50

4.7 Should there be significant closures to the A50 mainline near A50 Junction 1, then HGVs could travel north to the A52 eastbound via A50 Junction 2 and then south on the M1 to Junction 24. Alternatively, HGVs travelling from further west could divert along the A38 southbound at A50 Junction 4 to Burton-upon-Trent and then eastbound along the A511 to A42 Junction 13, although this would incur a longer journey. **Figure 8** shows the diversion route.

Figure 8. HGV Diversion Route (A50 closure)



Summary

4.8 In summary, there are various strategic roads leading to the site that provide HGV drivers with diversion options should parts of the SRN network be temporarily closed. The distribution of HGVs within PRTM shows that naturally all HGVs would be required to use the strategic roads when travelling to the site because of the existing weight restrictions that are in place. Therefore, there should be no requirement for HGVs to use the local roads for accessing the site and multiple route options are available to minimise impacts during times when parts of the SRN are closed because alternative roads of suitable nature are available. There will be an obligation for all occupiers to ensure that HGVs travel on the permitted routes for all operational purposes.

HGV Management Measures

4.9 As evidenced by the assignment of HGVs within PRTM, the existing weight restrictions along the undesirable routes leading towards villages means HGVs are forced to the more strategic routes.

4.10 PRTM predicts that no HGVs from EMG2 would travel west along the A453 to A42 Junction 14 or via the Castle Donington bypass to A50 Junction 1. This limits any impacts on the A453 around the new Isley Woodhouse settlement, which is seeking permission for a large residential led development. Whilst the Isley Woodhouse proposals involve diverting the A453 towards the western site boundary effectively forming a bypass

around the development site, which makes this route more suitable for HGVs, it is unlikely to be used unless in the event traffic is diverted.

4.11 Overall, given the existing route options and weight restrictions in place, no additional management measures are proposed to control the movement of HGVs arriving/departing the site and the existing weight restrictions should ensure that HGVs use the appropriate strategic routes and avoid the more sensitive locations.

5. SUMMARY

5.1 This HGV Route Plan has reviewed the PRTM outputs and predicted assignment of HGVs from the EMG2 development to establish whether any management measures are required to control the direction of HGV travel to limit impacts on the local road network.

5.2 The existing roads leading to villages surrounding the site all contain weight restrictions. The PRTM outputs demonstrate how all HGVs associated with EMG2 would use the Strategic Road Network and avoid the more sensitive routes. These strategic routes are designed to accommodate large HGVs and would be capable of accommodating these increases with the proposed mitigation in place.

5.3 There are a number of route choices available to HGV drivers arriving and departing the site. This means that, during an occasion when part of the Strategic Road Network is closed, there are alternative options for HGVs to divert along other routes of similar strategic nature to access the site. This limits any reliance of HGVs using the local road network.

5.4 In summary, the existing highway network and weight restrictions should ensure that HGVs associated with EMG2 travel on the Strategic Highway Network meaning that no additional management measures are required. All occupiers of EMG2 will need to ensure that HGVs travel on the permitted routes. This follows EMG1, which also has no measures in place to control HGV movements.

APPENDIX 16: Construction Traffic Management Plan (document reference PC23-004 EMG 2)



PC24-004 EMG 2

Construction Traffic Management Plan

Client – (Segro (EMG) Ltd)

1. DOCUMENT ISSUE RECORD

Author:	Mark Skelton
Checked:	Jared Taylor
Approved:	Jared Taylor

Rev	Date	Status	Comment	Author:	Checked:	Approved:
P00	08/11/2024	S0	Draft – Client submission for review	MS	JT	JT
P01	19/11/2024	S1	Draft 1 – Amendments from comments	MS	JT	JT
P02	22/11/2024	S2	Draft 2 for review	MS	JT	JT
P03	14/04/2025	S3	Amendments for Royal Mail section 42 consultation response and Construction Traffic assessments.	MS	JT	JT
P04	05/06/2025	S4	Amended to remove reference to EMG1	MS	JT	JT
P05	04/07/2025	S5	Amended to address NH comments dated	MS	JT	JT
P06	21/08/2025	S6	Amended to incorporate LCC road impact assessment comments.	MS	JT	JT

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CONTENTS

1. **DOCUMENT ISSUE RECORD**

2. **INTRODUCTION**
   - 2.1 Appointment
   - 2.2 Document Objective

3. **LOCATION AND HIGHWAY NETWORK**
   - 3.1 Location

4. **CONSTRUCTION TRAFFIC ACCESS AND VEHICULAR MOVEMENTS**
   - 4.1 Routing Strategy
   - 4.2 Proposed Construction Traffic Routes and Temporary Signage
   - 4.3 Abnormal loads
   - 4.4 Construction Traffic volume assessment
   - 4.5 Timing of movements
   - 4.6 Royal Mail Coordination and Notification Protocol

5. **CONSTRUCTION TRAFFIC MANAGEMENT AND TEMPORARY SITE ACCESS.**

6. **NOISE AND ENVIRONMENTAL IMPACTS**

7. **MONITORING AND MITIGATION**

8. **ENFORECEMENT OF THE CONSTRUCTION TRAFFIC MANAGEMENT PLAN**

APPENDICES

Appendix 1 – Indicative main site access layout plan

Appendix 2 – Construction Traffic calculations

2. INTRODUCTION

2.1 Appointment

Taylor Skelton Ltd (TSL) has been appointed by Segro (EMG) Ltd (the Developer) to prepare this Construction Traffic Management Plan (CTMP) report in support of a Development Consent Order (DCO) application for employment development at the site located to the south of East Midlands Airport, and west of Moto Services Donington Park, referred to as East Midlands Gateway 2 (EMG2).

This CTMP has been prepared as a supplementary document to the overarching Construction Environmental Management Plan (CEMP). The CEMP will set out the principal environmental management framework for the construction phase of the project, including key commitments, mitigation measures, and monitoring requirements. This CTMP aligns with the objectives of the CEMP and provides specific detail on the management of construction-related traffic to minimise environmental impacts, ensure safety, and maintain local amenity.

This CTMP should therefore be read in conjunction with the CEMP to ensure consistency across environmental and logistical controls during the construction period.

This CTMP document covers the full extent of the Order Limits for the initial stage of the development, including:

- EMG2 Main site roads and earthworks
- M1 corridor gantry and signage works
- M1 Junction 24 mitigation package
- Finger Farm signage works and upgrade
- A453 South minor highway works
- A453 West (The Green) junction mitigation works

Any subsequent construction phases of the development will require a separate phase Construction Traffic Management Plan (pCTMP) to be prepared for that specific element.

Each pCTMP will be produced substantially in accordance with this CTMP and submitted for approval by the relevant highway authority, including National Highways, prior to commencement of works for each phase.

It is anticipated that pCTMPs will be developed during the detailed design stage and prior to the appointment of the Principal Contractor for each phase, or at such other stage as agreed with National Highways and the local highway authority.

2.2 Document Objective

This CTMP details the proposed mitigation measures that have been included within the Preliminary Design of the DCO Proposed Development and will be implemented, so far as reasonably practicable, to mitigate the potential effects of traffic during the construction stage of the development.

This document focuses on the construction phase of the Scheme. Subsequent phases will be covered in separate pCTMP(s) as required and referenced above.

This CTMP sets out the arrangements and management practices that will be adopted to minimise the impact of construction traffic on the strategic and local road networks and will be agreed with the relevant highway authorities, including National Highways, prior to commencement of construction works.

This document also provides clear guidance to the Principal Contractor (once appointed) and all sub-contractors regarding:

- Approved access routes to and from the site
- Maintenance requirements for the existing public roads
- Restrictions on vehicle access and routing
- Speed limits imposed during the works
- Identification and tracking requirements for all vehicles involved in the project

The Principal Contractor will be responsible for implementation of the CTMP and ensuring that all measures are adhered to by subcontractors, suppliers, and the workforce.

Disciplinary measures will be enforced for repeated breaches of the agreed routes or protocols. These may include verbal and written warnings, suspension from site, or termination of contracts.

A separate Workforce Construction Traffic Management Plan (Workforce CTMP) will be produced to manage how construction workers travel to and from the site. This Workforce CTMP will be secured through the relevant Phase Construction Traffic Management Plans (pCTMPs) for each phase of the development.

National Highways will be consulted on the Workforce CTMP prior to final sign-off of each pCTMP. Sufficient time (not less than 1 calendar month) will be built into the programme to allow for full review by National Highways to ensure the Workforce CTMP is acceptable before any pCTMP is approved.

In order to provide vehicular access and facilitate construction of the various elements of the development, there are three types of road network to be considered:

- National Highways-operated motorways
- National Highways-operated trunk roads
- Local authority-operated roads

Public transport operators are unlikely to be significantly affected by the proposals, provided prior notification and consultation are undertaken. The Principal Contractor will inform transport operators and coordinators of any temporary traffic management requirements affecting public transport corridors in advance, to afford sufficient time to plan and re-route services or issue notices as appropriate.

The re-routing strategy is based on the following principles and objectives summarised in table 1.1 below:

Table 1.1 Objectives of the OCTMP

Objective	Description
A	Provide safe and efficient construction access for the DCO Proposed Development.
B	Ensure that movements of people, plant and materials are achieved in a safe, efficient, timely and sustainable manner.
C	Ensure that any impact to the local communities and tourism industry (In particular East Midlands Airport) is reduced so far as reasonably practicable.
D	Avoid sensitive receptors with effective routing and management of Development traffic.
E	Ensure construction traffic levels do not exceed an acceptable and agreed evel during network peak periods.
F	Reduce and control construction vehicle trips where practical to meet option E constraints.
G	Ensure strategies and mitigation measures are implemented and adhered to through continued monitoring, with ongoing review and improvement of the OCTMP.
H	Construction routes have been identified based upon their suitability to accommodate HGV and LGV traffic. For the purposes of assessment HGVs are defined as any vehicle exceeding 3.5t gross weight. As far as reasonably practicable, HGV routes maximise use of the SRN with clear defined constrains for the Local Road Network and sensitive receptors.

A Construction Traffic Management Working Group will be established and meet regularly to discuss, plan, and coordinate upcoming traffic management measures. The working group will convene (monthly during peak construction periods), or as otherwise agreed.

The group will include (but not be limited to):

- National Highways
- Leicestershire County Council
- Local bus operators
- East Midlands Airport (EMA)
- Moto Services
- Police, Ambulance, and Fire services
- The Principal Contractor
- Any other contractors or organisations undertaking works on the local or strategic road networks that may have the potential to interact with the construction activities of EMG2.

The purpose of this group will be to ensure appropriate coordination of works to avoid conflict and to minimise cumulative impacts on the Strategic Road Network (SRN) and Local Road Network (LRN).

Construction information relating to the type and timing of works, associated transport routes, expected hours of construction traffic movements, and key traffic management measures will be published on the scheme website in advance to enable stakeholders and road users to plan their journeys accordingly.

The Principal Contractor will operate a dedicated enquiry and complaints facility for any issues associated with traffic management impacts. All enquiries will be logged and closed out as far as reasonably practicable.

These arrangements will be in addition to any reporting requirements imposed by National Highways and the local highway authority, including timeframes for response and resolution.

3. LOCATION AND HIGHWAY NETWORK

3.1 Location



Fig 1

The site is located in the East Midlands, in the "Triangle" formed by the cities of Derby (15 km or 9.3 mi, Northwest), Nottingham (17 km or 11 mi, North East) and Leicester (24 km or 15 mi, South East) see fig 1 and fig 2.

Direct road access to the site access (EMG2) will be along the A453 West which is served by good arterial road links from the M1 (North and South), A42 (North), and A453 (South).

Access to the "Highway works" for the development will be managed through specific traffic management systems tailored to each phase of the works. These systems will evolve as the project progresses to accommodate changing site conditions and ensure safe and efficient access for construction vehicles and workers.

M1

The M1 is a north-south arterial route stretching the 311km (193 miles) between London and Leeds. The M1 passes Northampton, Leicester, Nottingham, Derby, Sheffield and Wakefield. The nearest point of access in relation to the site for North travelling traffic is Junction 23A northbound exit to finger farm roundabout, where traffic will adjoin the A453 West, and travel 500m to the proposed site access.

M1 Southbound, traffic will exit at J24, and adjoin to A453 South off J24 gyratory.
EMG2 Main Site traffic will continue on the A453 South to finger farm roundabout and then then travel West on the A453 for 500m to the temporary site access.

A42

The A42 is a major trunk road in the East Midlands, it links J23A of the M1 with junction 11 of the M42. It is 15m (24m) in length.
A42 Northbound traffic will as above, exit North to finger farm roundabout and undertake the same route as M1 Northbound traffic. Note: The M1 North (J23A) and A42 North merge at their respective off slips creating a 3-lane approach to finger farm roundabout.

4. CONSTRUCTION TRAFFIC ACCES AND VEHICULAR MOVEMENTS

4.1 Routing Strategy

Vehicles making deliveries to the Site or removing materials from, will travel by pre agreed designated routes which will be definitively confirmed in the pCTMP.

Whilst the pCTMP will denote assumed routes, the Principal Contractor will be responsible for attaining agreement from the relevant authorities prior to commencement of any phase.

A principle consideration when identifying designated routes will be the minimisation of travel along any road that does not form part of the Strategic Road Network (SRN).

Subject to agreement by the appropriate authorities, it is envisaged that construction vehicles will approach the Site using the M1 (North or South), A42 North, A50 South, or A453 South.

All routes will adjoin the A453 West and travel 500m Westbound to the site access as denoted in figure 3 for EMG2 Main site, or as detailed above will access via the gyratory on the A453 opposite Kegworth Bypass.

No construction access will be taken via Diseworth village, Hyam's Lane or Long Holden?

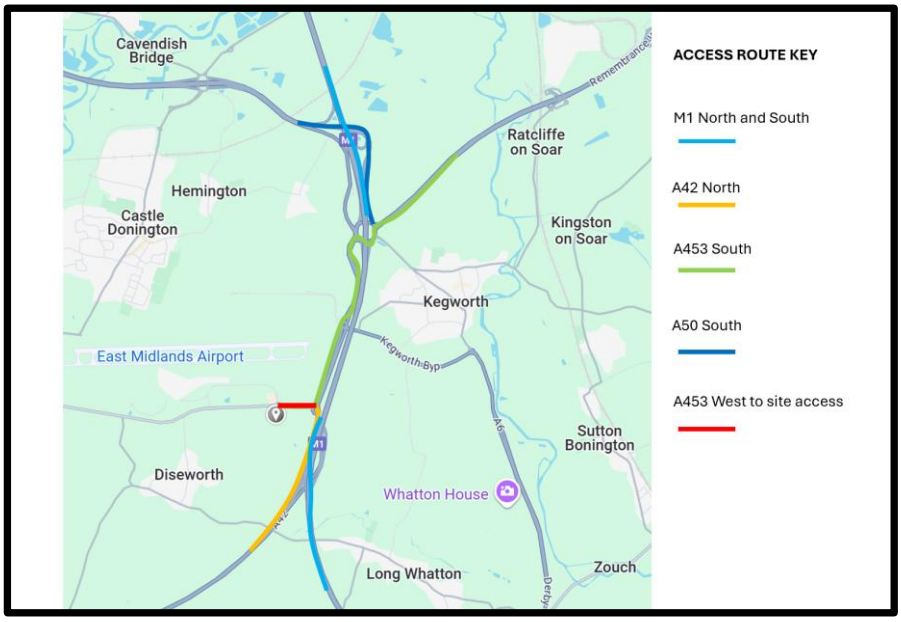


Fig 3.

Where appropriate, the Principal Contractor will provide haul routes through the site for use by construction vehicles, to reduce the need to use of public roads to access different parts of the main site.

The Principal Contractor will consult with the relevant highway authority regarding the layout and positioning of site accesses and undertake swept path analysis to determine suitability as an access/egress for all vehicle types anticipated to be required to visit the site.

4.2 Proposed Construction Traffic Routes and Traffic Management Requirements.

Traffic Safety and Control Officer

Prior to the implementation of any Traffic Management on the Network, the Principal Contractor will appoint a Traffic Safety and Control Officer whose responsibilities will cover:

- Management and implementation of all temporary traffic management measures associated with the Development.
- Checking that all necessary equipment is in place and confirming that it is in working order, and installed in line with the recommendations of the Traffic Signs Manual Chapter 8.
- Management of the Traffic Management layout at site access points.
- Liaison with the relevant authorities, and traffic safety and control officers on nearby schemes which are deemed to have the potential to adversely impact the SRN and LRN associated with this development.
- Arranging for site inspections at regular intervals and checking that equipment is correctly maintained, and in the case of accidents or incidents having replacement signs, cones, bollards, and lights erected without delay.

Note: Traffic Signs Manual Chapter 8 states: “The complexity of traffic management arrangements varies from scheme to scheme, but the primary objective is ~ to maximise the safety of the workforce and the travelling public.

The secondary objective is ~ to keep traffic flowing as freely as possible".

Traffic management on all highways and roads associated with the scheme will comply with the UK Government's Code of Practice 'Safety at Street works and Roadworks' (DfT, 2013) (Ref. 2) or other relevant legislation and guidance as appropriate at the time of implementation. Traffic management will be agreed with the relevant HA prior to the commencement of works. Traffic management signage will be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 (Ref. 3) and Traffic Signs Manual Chapter 8 (Ref. 1).

Temporary signs providing route information for contractors will be erected at key locations along the proposed construction traffic routes on the LRN and potentially the SRN.

Lead-in times (generally 3 weeks) shall be built into the construction programme to accommodate the formal approvals and advance notification process for any signage requiring National Highways or LCC consent.

Project information boards will be erected and will include key information for the public and relevant contact details. The design and location of route information signs and information boards will be agreed with Leicestershire County Council (LCC) and National Highways (NH) prior to installation.

The Principal Contractor shall ensure that the following general traffic management procedures are implemented for the duration of construction:

- Drivers of site and construction traffic vehicles will be made aware of access routes and contingency/mitigation measures during the site specific induction. In particular, 'no construction access' will be briefed in respect of routes through Diseworth village, Hyam's Lane or Long Holden.
- Drivers of HGV's and abnormal loads will also be inducted, (drivers induction to be undertaken prior to attendance at site) and traffic routes to and from site will be made clear prior to any traffic movements.
- The contractor will be required to implement induction procedures and promote road safety and awareness – in particular Safe access and egress into traffic management should be briefed to all drivers.
- Where possible, arrangements will be made for site workers to share transport and minimise unnecessary traffic movements locally.

4.3 Abnormal loads

Although A/L deliveries to site will normally be planned for outside normal working hours, it is possible that some abnormal deliveries, e.g. major items of plant and equipment, may require special delivery requirements that would require the activity to be undertaken during the normal operating hours.

In all instances, such deliveries will be planned with appropriate highway authorities and the police and executed in compliance with those requirements.

The Principal Contractor will notify the police, the highway authorities or bridge and structure owners, as appropriate, in moving abnormal loads through the road network.

The Principal Contractor will provide relevant parties with a schedule of abnormal load deliveries prior to the first abnormal load movement being carried out. This schedule will be updated and re-issued to the parties as required throughout the construction period.

4.4 Construction Traffic volume assessment

For detailed construction traffic volume calculations an assessment has been undertaken by BWB Consulting Ltd (BWB) who have produced the report East Midlands Gateway 2 – Construction Traffic Calculations, document number EMG2-BWB-GEN-XX-RP-TR-0013 which is contained in appendix 3 of this document.

For the purposes of the calculation's, vehicles can be classified as follows:

<u>Heavy goods vehicles:</u>

For the purpose of this document HGV associated construction traffic includes:

- Workforce Travel on any vehicle 3.5t or greater.
- HGV deliveries of construction materials and equipment.
- HGV deliveries of plant and equipment.
- HGV deliveries of bulk civils materials including aggregate and backfilling materials.

Construction workers and light goods vehicles:

- Cars, vans and any other vehicles less than 3.5t.

In general, it is envisaged that vehicles transporting construction workers will utilise the same route as the construction traffic. However, the route used by construction workers may vary depending on their point of origin.

It is further anticipated that the Principal Contractor will set out arrangements for managing light goods vehicle movement during the course of the working day. Whilst access to areas (in particular offsite Highway works) will be required for surveys and construction works, general travel for personal reasons, both onto the network, and into local towns and villages should be discouraged.

One way of doing this will be, not only to provide the welfare requirements as denoted in the Construction Management and Design regulations, but also to consider the provision of a "canteen" or "shop" that could be served to discourage unnecessary movements from the site during the course of the day.

Based on the above, the BWB calculations have assessed the peak hour construction traffic separately for EMG2 Works, EMG1 Works, and external highways works (0800 – 0900 in the morning and 1700 – 1800 in the evening). Table 7 in the main report is replicated below, which subsequently summarises the totals of the 3 distinct assessments.

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	17	17	34	3	3	6
LGV	3	3	6	1	1	2
Car	19	4	23	5	29	34
Vans	38	8	45	9	56	65
Total	**77**	**32**	**108**	**18**	**89**	**107**

The details show that there is expected to be a total of 108 two-way construction vehicle movements in the morning peak hour and 107 in the evening peak hour, including both movements by operatives (car and van), LGVs and HGVs.

The construction traffic volumes will be capped at the levels set out in Table 7 of the BWB Report, and the values presented in the Construction Traffic Calculations Technical Note at Appendix 3. The contractor will monitor traffic flows during the construction phase and maintain daily records of all vehicle movements and ensure they are compliant with the above assessment calculations.

4.5 Timing of movements

Where possible vehicular movements will be constrained to the site working hours:

07:00-19:00 Monday to Friday; and
07:00-15:00 Saturday.

There will be no works on the main site out of these times other than in exceptional circumstances where prior agreement and notification with be give to the local planning authority.

There will, however, be a need for movements outside of this timeframe to facilitate the construction of elements of the scheme that require non-standard working hours to mitigate the impact of the works on the travelling public. Nightworks, and weekend possessions fall into this category. Advance communication in respect of this, will follow the protocol to be determined in the Construction Traffic Management Liaison meeting, but will ordinarily require information placed on the scheme's

website, and circulatory emails to key stakeholders as defined in the communications protocol.

4.6 Royal Mail Coordination and Notification Protocol

As part of the evolving Construction Traffic Management Plan (CTMP) for East Midlands Gateway Phase 2 (EMG2), it is acknowledged through consultation that Royal Mail's operations are time-critical and rely heavily on predictable access to the local and strategic road network.

In response to Royal Mail's comments during the consultation process, and in recognition of their operational requirements, the Main Contractor will, during the construction phase, provide advance written notification to Royal Mail regarding all relevant traffic management arrangements. This notification will include pictorial aids, annotated maps, and a clear explanation of the traffic scenario, ensuring that Royal Mail has sufficient understanding of traffic management arrangements and any perceived impacts.

The CTMP will incorporate the following Royal Mail mitigation points as a standard protocol that the Principal Contractor will adhere to:

Advance Notice of Disruption: A requirement that during the construction phase Royal Mail is notified by Segro Properties Ltd or its contractors at least one month in advance on any proposed road closures / diversions / alternative access arrangements, hours of working.

Alternative Route Identification: Where road closures / diversions are proposed, Segro Properties Ltd or its contractors should be required to liaise with Royal Mail at least one month in advance to identify and make available alternative highway routes for operational use, where possible.

Ongoing Notification Mechanism: A mechanism will be implemented to inform Royal Mail of any other local highway works that may affect the network, particularly in the vicinity of key Royal Mail operational sites in the area surrounding EMG2.

The above will ensure a coordinated approach and allow Royal Mail to manage its logistics effectively during the construction phase.

5. CONSTRUCTION TRAFFIC MANAGEMENT AND TEMPORARY SITE ACCESS.

The "temporary" construction site access will be off the current roundabout on the A453 West, directly opposite the Beverley Road spur of the roundabout between Finger Farm and the East Midlands Airport access.

Traffic management will be implemented in both directions to clearly identify the site access and to provide advance warning to road users of vehicles entering, exiting, or turning into/out of the development. The Traffic Management layout shall be prepared by the Principal Contractor and submitted for agreement with Leicestershire County Council, the overseeing authority for the A453 west of Finger Farm Roundabout.

For indicative purposes, fig 4 below details likely traffic management arrangement at the proposed temporary site access to the South of the roundabout.

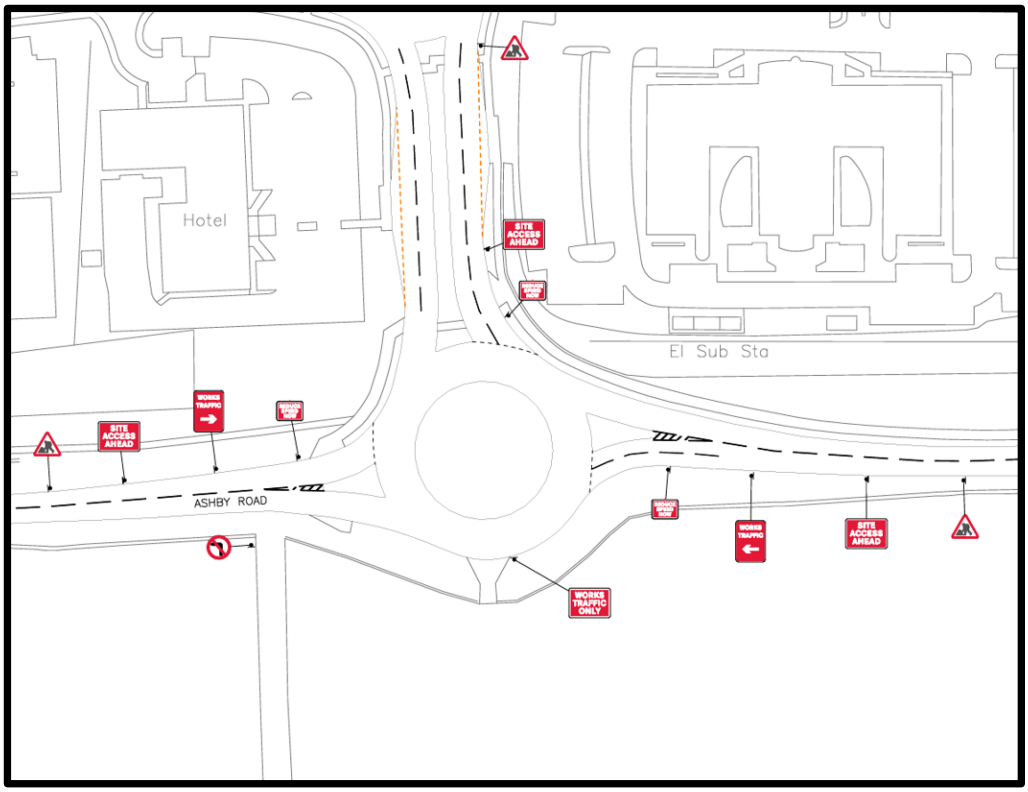


Fig 4.

Note: Traffic Management will be in place until such a time as any permanent works are installed and utilised, including appropriate permanent signage, and an assessment for use by an independent RSA3 Audit (Road Safety Audit).

The main materials storage compound, site welfare facilities, and delivery area, will be accommodated on-site. Additional areas may be required in order to construct the Highway works, whereby satellite office accommodation, and material lay down areas may be additionally required. These will be detailed further in the Contractors CTMP once the Design and methodology are sufficiently developed. Traffic Management associated with access to, and egress from, will be detailed and regularly reviewed in the CTMP.

6. NOISE AND ENVIRONMENTAL IMPACTS

The Principal Contractor will consider the design and operation of the construction site from the perspective of minimising noise and environmental impacts throughout the construction phase.

A clear and concise construction signage scheme will be implemented to support internal traffic control, ensuring separation between construction vehicles and pedestrians. Signage will identify the site office, parking areas (including disabled spaces), delivery zones, and pedestrian routes.

Where reasonably practicable, site haul roads and working areas will be planned to minimise impacts on sensitive receptors and reduce noise, vibration, dust, and visual intrusion.

Additional information on noise monitoring and air quality management will be set out in the Construction Environmental Management Plan (CEMP), which will define thresholds and monitoring protocols in line with best industry practice.

While noise from construction plant is unavoidable, the CEMP will include detailed measures to control and mitigate such impacts. These may include:

- Use of noise-reducing equipment (baffles, enclosures, “Hushpods”)
- Specification of white noise reversing alarms
- Correct positioning and boxing-in of generators
- Maximising the use of electric plant where feasible

Vehicle engines shall not be left idling while waiting to access the site or during loading and unloading. Signage will be installed at site entrances, and gatemen or banksmen will monitor and enforce compliance.

Road sweeping will be required to ensure no debris is left on any roads affected by the development, including both the Local Road Network (LRN) and Strategic Road Network (SRN). This is particularly pertinent in wet conditions, when the site is likely to generate mud as a consequence of Construction activities.

The provision for dealing with this will be covered in the CEMP and the CTMP, where consideration will be given to the use of:

- wheel washes,
- long run-off hard standings with rumble strips
- and road sweepers.

All such provisions will be detailed in both the CEMP and the Phase Construction Traffic Management Plan (pCTMP).

7. Monitoring and Mitigation

The CTMP sets out management and mitigation measures to reduce the impact of the development on the Strategic Road Network (SRN), Local Road Network (LRN), local communities, and the environment. This document should be read in conjunction with the CEMP to provide a comprehensive overview of measures and obligations.

Where reasonably practicable:

Construction and delivery vehicles will avoid travelling in convoys on public roads.

Vehicles will not stop or wait in laybys or on the carriageway en-route to or from the site.

Vehicles shall not queue or stack on the public highway. Sufficient on-site capacity will be maintained to allow vehicles to wait and be processed within the site boundary. Additional pull-in refuge lanes will be provided to maintain the free flow of traffic through the gate and avoid congestion on the A453 and the wider network.

The Principal Contractor will establish a robust monitoring protocol to demonstrate compliance with this CTMP. This will include:

- Daily records of all vehicle movements (arrivals and departures)
- CCTV and/or ANPR monitoring of site access points
- Regular audits and reporting of compliance

Monitoring data will be collated and submitted to National Highways and Leicestershire County Council on a monthly basis, or as otherwise agreed with the authorities.

Any repeated failure to adhere to authorised routes or protocols will result in appropriate disciplinary action in line with the Principal Contractor's policies and Subcontractor/Supplier agreements.

Additionally, as requested by Leicestershire County Council, the Principal Contractor will undertake an assessment of the potential impacts of any road closures required during the construction phase. This assessment will be carried out at the appropriate time, prior to any closure being implemented, and the methodology will be agreed with the relevant highway authorities. The findings of this assessment will be shared with both LCC and National Highways to ensure suitable mitigation is identified where necessary.

8. Enforcement of the Construction Traffic Management Plan

To ensure that the measures outlined in this document can be effectively enforced, it is important to define what would constitute a breach. The CTMP therefore considers that the following would constitute a breach whereby corrective measures would be required:

- Failure to implement or use the agreed traffic management protocol.
- Failure to follow the agreed delivery routes.

- Failure to record deliveries and departures for plant and materials with the proposed monitoring system.
- Failure to keep the construction traffic volumes less than or equal to the traffic management assessment numbers as defined by the BWB report – *East Midlands Gateway Phase 2 – Construction Traffic Calculations*.

Vehicles that are either reported for utilising routes which are not approved, or which are observed to travel along inappropriate routes or in an inappropriate manner, shall be reported to the Principal Contractor for investigation.

The Principal Contractor shall carry out all possible enquiries to identify the relevant company and driver responsible and will take disciplinary action. The step process for this will be covered in the CTMP.

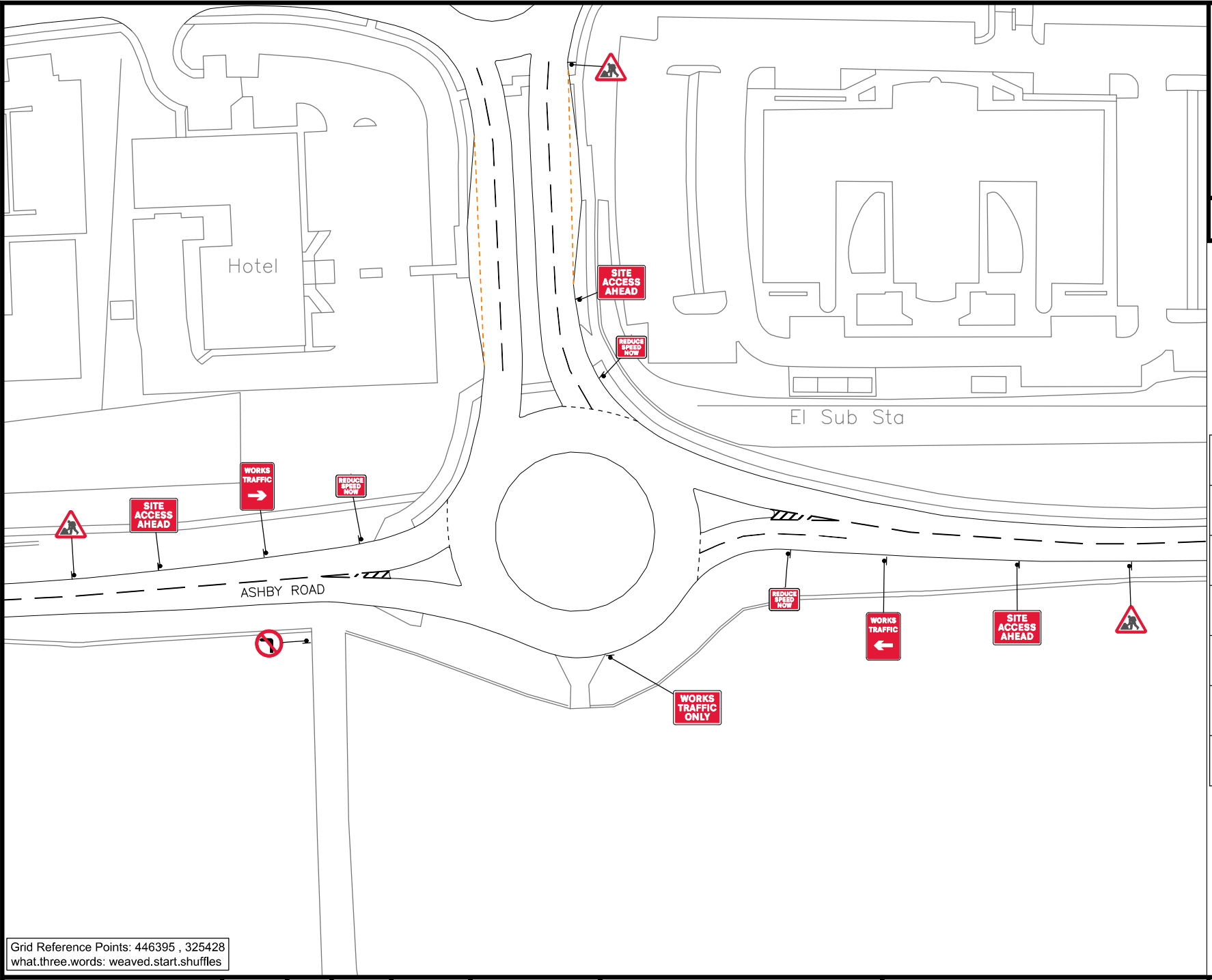
Where any traffic volume thresholds are exceeded, National Highways will be notified immediately and involved in identifying and agreeing mitigation or enforcement measures.

Where there are more than three breaches within a two-week period, the monitoring data will be provided to National Highways and a meeting convened within one week to agree mitigation actions and next steps.

The Principal Contractor shall record all information in a tabulated format and discuss more widely as an agenda item in the Construction Traffic Management Working Group meeting.

APPENDIX 1

Indicative main site access layout plan



Grid Reference Points: 446395 , 325428
what.three.words: weaved.start.shuffles

TAYLOR SKELTON

BILL OF QUANTITIES

Qty: 3 Ref: 13.9 Schedule 13-9 : Temporary Information	SITE ACCESS AHEAD
Qty: 3 Ref: 511 Reduce speed now	REDUCE SPEED NOW
Qty: 1 Ref: 613 No left turn	
Qty: 3 Ref: 7001 Road works ahead	
Qty: 1 Ref: 7301 Works traffic only	WORKS TRAFFIC ONLY
Qty: 1 Ref: 7303 Works traffic direction left	WORKS TRAFFIC
Qty: 1 Ref: 7303 Works traffic direction right	WORKS TRAFFIC

Traffic Safety & Management

Date:	Rev	DRAWN	APPROVED
13.11.24	1	JA	TSM

Title: Ashby Road, Diseworth, Leicestershire, DE74 2TU

Drawing Number:	TSM-1325-REV1
Client Reference:	EMG2
Traffic Management:	Site Management
Road Speed:	60mph

KEY

Sign

All drawings are drawn to north.

All layouts are drawn with Traffic Signs Regulation & General Layout Directions 2016 & Chapter 8 Guidelines. Using Safety At Street Works And Road Works A Code Of Practice as a guideline.
Drawing to be read with relevant method statement & risk assessment.
All sign locations are indictive and exact locations will be determined on site.
Cross section is measured from narrowest point throughout works.
This may differ on site and are only to be used as a guide.

Drawn by Ackroyd Design.

A3

APPENDIX 2

East Midlands Gateway Phase 2

Construction Traffic Calculations

EMG2-BWB-GEN-XX-RP-TR-0013

PROJECT NAME	East Midlands Gateway Phase 2 – Construction Traffic Calculations		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0013	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Simon Hilditch	REVISION	P3
APPROVED	Paul Wilson	DATE	11.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 This Technical Note presents the methodology used to calculate the traffic generation during the construction phase of the development. It follows the same methodology adopted on other nationally significant employment DCO projects with Segro at East Midlands Gateway (EMG1) and Northampton Gateway, although without the Strategic Rail Freight Terminal element as this is not proposed at EMG2.

1.3 A separate Explanatory Note has been produced setting out the assumptions and process adopted in calculating construction traffic. A copy is included in **Appendix 1**.

2. CALCULATION METHODOLOGY

2.1 The following calculations consider the tonnes of material required to construct various components of the development based on a unit of measurement. The key components being:

- Roads (EMG2 and EMG1)
- Off-site highway works (EMG2 site access, EMG1 site access, M1 J24, A453/The Green)
- Bridges
- Earthworks (EMG2 and EMG1)
- Buildings (EMG2 and EMG1)
- Landscaping (EMG2 and EMG1)

2.2 It should be noted that reference to EMG2 relates to the main site south of the A453 and East Midlands Airport, whilst reference to EMG1 relates to works associate with developing Plot 16 at the existing EMG site. The off-site highway works are based on the original PRTM modelling work and current mitigation design which reflect 2025 and 2035 future years. If the mitigation strategy changes as a result of the revised PRTM modelling, then this could affect the construction traffic calculations which would then need reconsidering.

2.3 The total number of HGV movements has been calculated based on 18.5T per movement.

2.4 The total number of LGV movements has been calculated based on the following percentages of the HGV movements for each construction component i.e. for 'roads (on-site)' the total number of LGVs equates to 20% of the total HGVs.

- Roads (on site) – 20%
- Roads (off site) – 20%
- Bridges – 40%
- Earthworks – 50%
- Buildings – 20%
- Landscaping – 400%

2.5 The total number of cars and vans varies depending on each construction component and are based on Segro's knowledge of developing other sites. However, it has been assumed that cars have an occupancy rate of 1 person and vans have an occupancy rate of 2 people.

2.6 The number of construction days has been calculated at 49 weeks x 5 day = 245 days per year.

2.7 To establish daily construction movements, total construction traffic has been divided by the days per year x duration in years. A separate Excel Spreadsheet has been produced containing the detailed calculations, contents of which are included at **Appendix 2**, whilst an extract is shown below. A copy of the Excel spreadsheet can be provided on request. **Table 1** subsequently shows the daily construction vehicle movements across the five-year construction period for each vehicle type. This is broken down by works at EMG2, EMG1 and external highway works i.e. at M1 J24 and A453/The Green based on the current mitigation strategy, which is subject to confirmation using outputs from the revised PRTM modelling.

2.8 To give an example, for the 'Roads (EMG2 Main Site)' component, this is expected to be on-going for a total of 367.5 days based on 5 days per week for 49 weeks multiplied by 1.5 years (49 x 5 x 1.5). Across the 367.5 days, there are expected to be a total of 7,750 HGV movements based on the total mass of material required. The daily number of HGVs has been calculated by dividing the total 7,750 HGV movements by 367.5 days, resulting in 21.09 daily HGVs (7,750 / 367.5).

2.9 The daily number of LGV movements (4.22) has then been calculated based on 20% of the daily number of HGVs (21.09 x 0.2 = 4.22).

CONSTRUCTION TRAFFIC CALCULATIONS

EAST MIDLANDS GATEWAY PHASE 2

BWB
A CAF GROUP COMPANY

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE 1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE 2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	19.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	-	**32.65**	21.09	-	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	-	**6.53**	4.22	-	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	**-**	**19.59**	42.18	**-**	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	-	**19.59**	31.63	-	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	-	-		-				-				39.54			
Yr 3	LGV	**7.91**	**7.91**	-	-		-				-				7.91			
Yr 3	Car	**19.77**	**19.77**	-	-		-				-				19.77			
Yr 3	Vans	**26.36**	**26.36**	-	-		-				-				26.36			
Yr 4	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 4	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 4	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 4	Vans	**26.36**	**26.36**	-	-						-	-			26.36			
Yr 5	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 5	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 5	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 5	Vans	**26.36**	**26.36**	**-**	**-**						**-**	**-**			26.36			
TOTAL																		

Table 1 – Daily Construction Vehicle Movements by Year

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.10 For robustness, the calculations assume that all construction components would start in Year 1. The details in **Table 1** show that peak construction traffic would occur in Year 1 with a total of 718 daily two-way construction vehicle movements, comprising 385 movements for works at EMG2, 169 movements for works at EMG1 and 165 movements for external highway works. **Tables 2** and **3** set out the assumptions made for the timings of arrivals and departures for each vehicle type has been adopted.

Table 2. Percentage Timings of Arrivals

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
Total	**100%**	**100%**	**100%**	**100%**

Table 3. Percentage Timings of Departures

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
Total	**100%**	**100%**	**100%**	**100%**

2.11 The above assumptions were previously agreed for the East Midlands Gateway and Northampton Gateway DCO projects.

2.12 **Tables 4, 5** and **6** summarise the peak hour construction traffic for the EMG2 works, EMG1 works and external highway works respectively, based on the worst-case Year 1 construction period, taking into account the above assumptions. The Excel spreadsheet shows the volume of construction traffic across all 13 hours (0600 to 1900 hours) for clarity.

Table 4. Peak Hour Construction Traffic Generation (EMG2 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	7	7	14	1	1	2
LGV	2	2	4	0	0	0
Car	11	2	13	3	16	19
Vans	23	5	27	6	35	41
Total	**43**	**16**	**58**	**10**	**52**	**62**

Table 5. Peak Hour Construction Traffic Generation (EMG1 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	4	4	8	1	1	2
LGV	1	1	2	0	0	0
Car	5	1	6	1	7	8
Vans	8	2	10	2	12	14
Total	**18**	**8**	**26**	**4**	**20**	**24**

Table 6. Peak Hour Construction Traffic Generation (External Highway works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	5	5	10	1	1	2
LGV	1	1	2	0	0	0
Car	4	1	5	1	6	7
Vans	6	2	8	2	9	11
Total	**16**	**9**	**25**	**4**	**16**	**20**

2.13 **Table 7** calculates the total peak hour construction traffic for all three sets out works, calculated as a sum of the values in **Tables 4**, **5** and **6**.

Table 7. Peak Hour Construction Traffic Generation (Total)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	17	17	34	3	3	6
LGV	3	3	6	1	1	2
Car	19	4	23	5	29	34
Vans	38	8	45	9	56	65
Total	**77**	**32**	**108**	**18**	**89**	**107**

2.14 The details show that there is expected to be a total of 108 two-way construction vehicle movements in the morning peak hour and 107 in the evening peak hour, including both movements by operatives (car and van), LGVs and HGVs.

3. PROPOSED ASSESSMENT METHODOLOGY

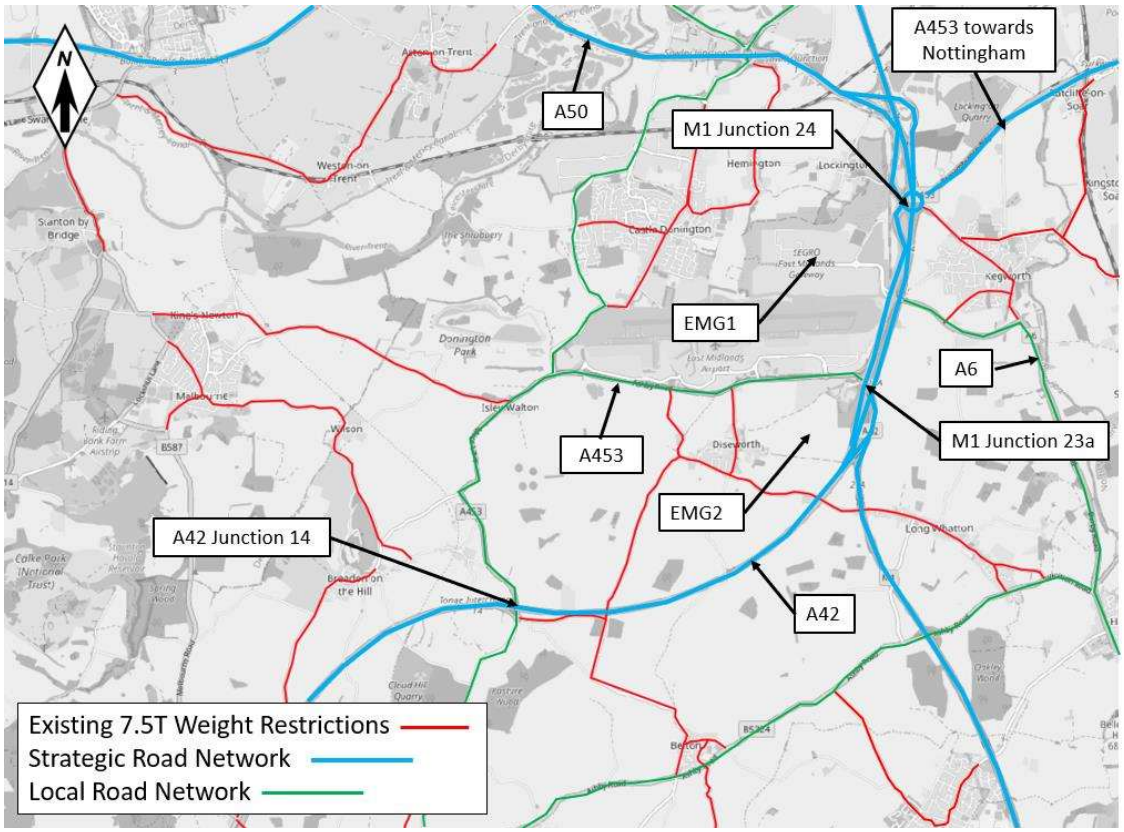
3.1 Whilst peak hour construction movements are expected to be low and do not warrant any further capacity assessment on the surrounding highway network, it is proposed that the peak hour/daily traffic is tested through the Pan Regional Transport Model (PRTM) to provide outputs to inform the ES Chapter, which requires an assessment of AADT construction traffic. Hence peak hour flows will be modelled and a factor will be applied in PRTM to derive AADT movements. This factor will mirror the daily construction vehicle calculations presented in **Table 1**.

3.2 The loading points of construction traffic in PRTM can be split by the various locations based on the values in **Tables 4, 5** and **6**. The distribution of construction traffic will be undertaken within PRTM based on the most appropriate methodology, which at this stage is expected to be via a gravity model approach.

3.3 The PRTM modelling of construction traffic will provide an indication of the likely increase in traffic across the network, which can be compared against the 2028/2038 forecast base year flows (without development), which are being provided as part of the Stage 1 modelling by AECOM. This will provide an understanding of the percentage increase in traffic which will be detailed in the ES Chapter.

3.4 Further details with regard to the routing of construction traffic and measures to limit impacts on the network will be provided in a separate Construction Traffic Management Plan. This includes a commitment to capping construction vehicle movements to those sown in **Tables 4, 5, 6** and **7** and monitoring traffic movements over the construction phase. In addition, consideration can be given to the impacts of lane closures and road space needed to deliver the external highways works, but again this will be covered separately at the appropriate time. HGV route choice will however need to consider existing weight restrictions on the surrounding roads, of which there are a number surrounding the site (as shown on **Figure 1**), which will help limit any impacts along the most sensitive routes and ensure that HGVs use the more strategic routes when travelling to the site. These weight restrictions are already coded into PRTM and was confirmed as part of the Base Model Validation Report.

Figure 1. Existing Weight Restrictions



4. SUMMARY

4.1 This Technical Note presents the traffic generation calculations for the construction phase of the EMG2 development. It follows previous methodologies adopted for other large DCO applications, including at East Midlands Gateway and Northampton Gateway and are based on inputs from an Excel spreadsheet provided by Segro.

4.2 The calculations consider each construction component individually and calculate the daily and peak hour construction vehicle movements for cars, LGVs, vans and HGVs across the five-year construction period.

4.3 The calculations confirm that peak construction activity would occur in Year 1, with a total of 718 daily two-way construction vehicle movements. When converted to peak hour traffic, there is expected to be a total of 108 movements in the AM peak hour and 107 movements in the PM peak hour (two-way). Whilst peak hour activity is expected to be low, construction traffic is proposed to be tested in PRTM for the purpose of obtaining AADT information for the ES Chapter.

Appendix 1. Explanatory Note

EMG2 Construction Traffic Calculations – Explanatory Note

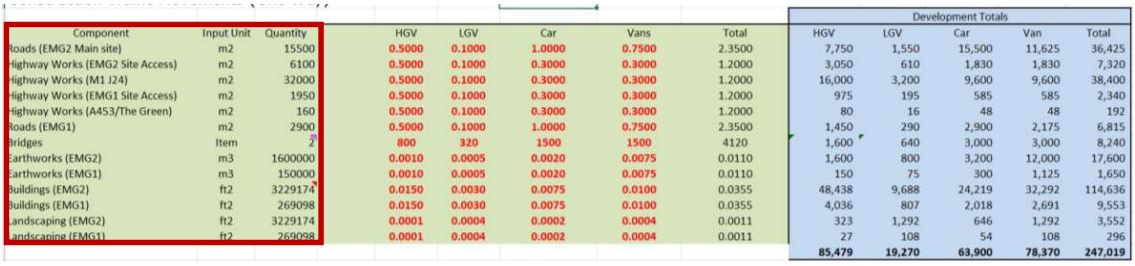
1. Introduction

1.1 This Explanatory Note has been prepared to provide guidance to users reading BWB's Construction Traffic Calculations Technical Note ref: EMG2-BWB-GEN-XX-RP-TR-0013, which calculates the construction traffic forecasts for the East Midlands Gateway Phase 2 project (EMG2). It also provides guidance on navigating the accompanying Excel spreadsheet so that users can understand how the calculations have been derived and any assumptions made.

2. Methodology

2.1 The Excel spreadsheet includes two tabs. The 'calculations' tab provides the inputs and assumptions behind the calculations, whilst the 'Daily_Hourly Flows' tab summarises the data for the purposes of reporting.

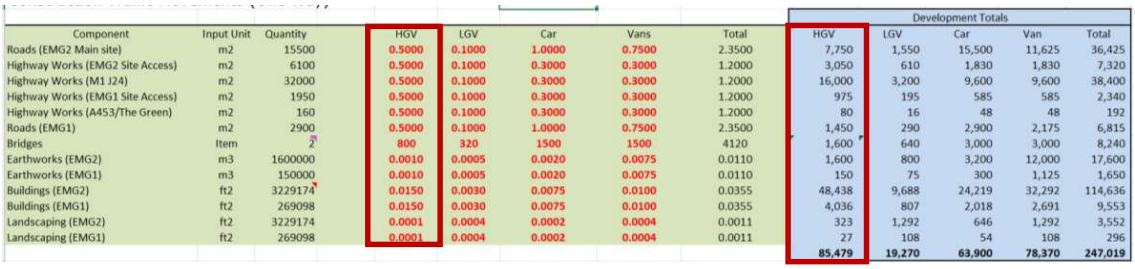
2.2 Starting with 'calculations' tab, this firstly lists the various construction components, the quantity of material needed to construct each component and the unit of measurement down the left-hand side.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.3 The volume of HGVs is determined based on a resourced programme with standard elements of work, so in this instance the number of visits needed to deliver the quantity of material to build each particular component and is applied as a factor. The factors reflect historic survey work undertaken by Segro on existing construction sites. As an example, a HGV factor of 0.5 is applied to all highway works.

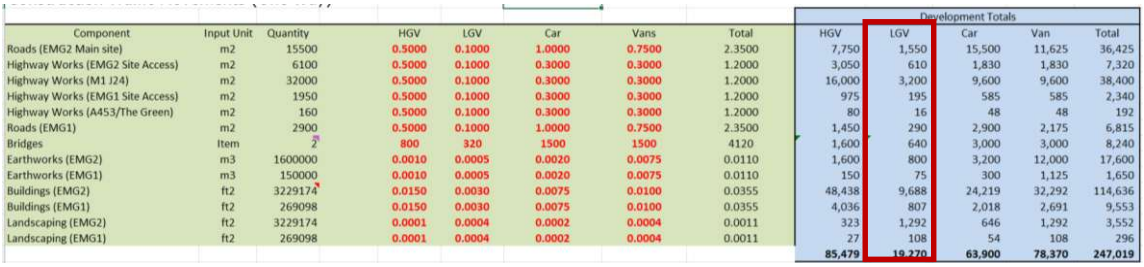
2.4 This factor is then used to calculate the total number of HGV movements that would be required to deliver the total quantum of material for each construction component.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
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								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.5 The total number of LGV movements are then derived as a percentage of total HGV movements, again reflecting historic surveys Segro has undertaken. The following percentages are adopted for each construction component, noting that a higher proportion of LGVs are generated for landscaping purposes compared to highway works. These values reflect one-way movements.

- Roads = 20%
- Highway works = 20%
- Bridges = 40%
- Earthworks = 50%
- Buildings = 20%
- Landscaping = 400%



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	19,270	63,900	78,370	247,019

2.6 The methodology for calculating car and van movements is the same and based on a resource programme with a standard element of works and includes movements from operatives, management, visitors and supervisors, which derives a factor similar to HGVs and LGVs. The factors reflect the following occupancy rates:

- Car = 1 person
- Van = 2 persons



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	19,270	63,900	78,370	247,019

2.7 Finally, total construction vehicle movements are calculated as a sum of HGVs, LGVs, cars and vans.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	19,270	63,900	78,370	247,019

2.8 The amount of time to complete each construction component is then set in years and reflects Segro's construction programme for EMG2. The number of years is then converted to working days, assuming 5 day working weeks for 49 weeks ((49 x 5) x no. of years). For example, the number of working days expected to complete the 'Roads (EMG2 Main Site)' component is 367.50 days ((49 x 5) x 1.5).

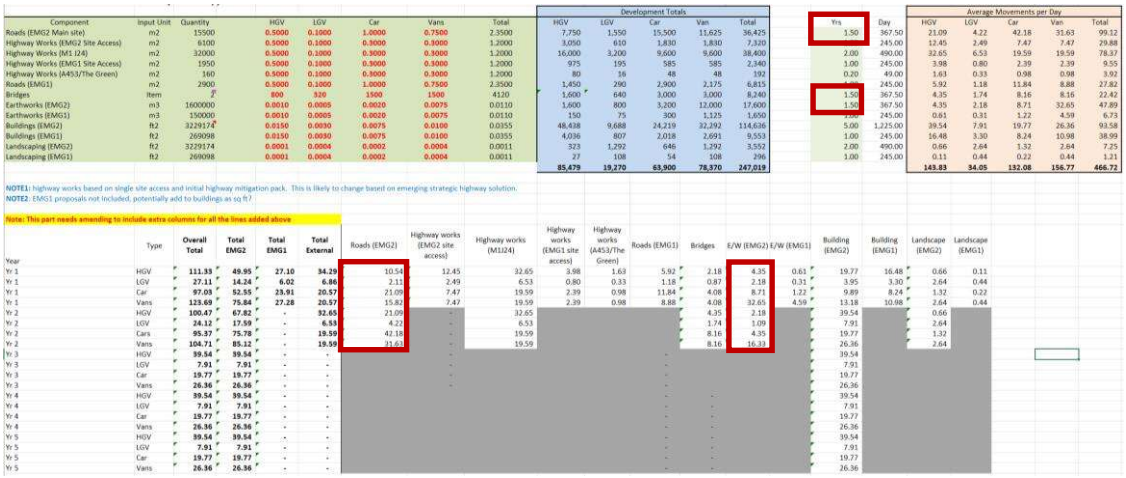
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.9 The daily number of vehicle movements for each construction component is then calculated by dividing the total number of vehicles across the entire construction programme by the number of working days. For example, daily HGV movements for the 'Roads (EMG2 Main Site)' component is 21.09 calculated as (7,750 / 367.50).

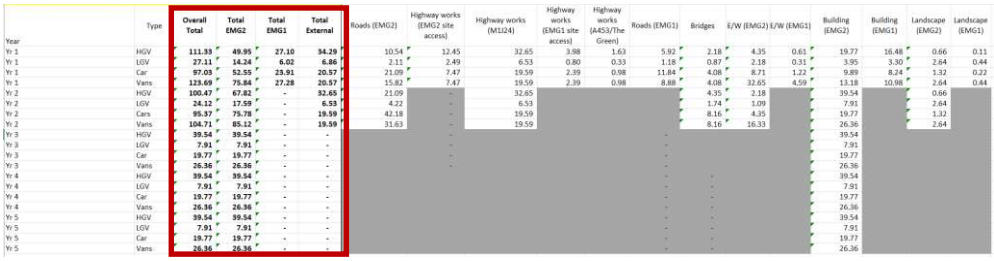
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.10 The daily number of movements is then profiled out for each year of construction based on the length of time that particular component is expected to take. To ensure a worst-case assessment, all components are set to start in Year 1, however in reality components will be staggered, for example a certain amount of earthworks is required before you can start constructing buildings.

2.11 Where a particular component is expected to end mid-way through a year i.e. 'Roads (EMG2 Main Site)' has a duration of 1.5 years, the daily values are taken in full for one of the years and divided by two for the other year, to calculate an average. This depends on each component, for example earthworks start early on in the construction programme, so daily movements for earthworks are taken in full for Year 1, whilst road construction would start later, and so daily movements are taken in full for Year 2.



2.12 Using the daily number of movements for each year of construction, total movements for works at EMG2, EMG1 and external highway works are calculated.



2.13 Within the 'Daily_Hourly Flows' tab, the average number of daily movements (one-way) for each vehicle type across each year are calculated using the values above (left hand side of table). These are then multiplied by two to derive two-way movements (right hand side of table), assuming that any vehicle arriving must then depart.

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.14 In this instance, peak construction traffic is expected to occur in Year 1, as highlighted yellow in the table above. These worst-case values have therefore been adopted when converting daily movements to peak hour.

2.15 The following percentage breakdown of arrivals and departures for each vehicle type is assumed, with the traditional network peak periods highlighted yellow. These percentages are based on historic survey work undertaken by Segro.

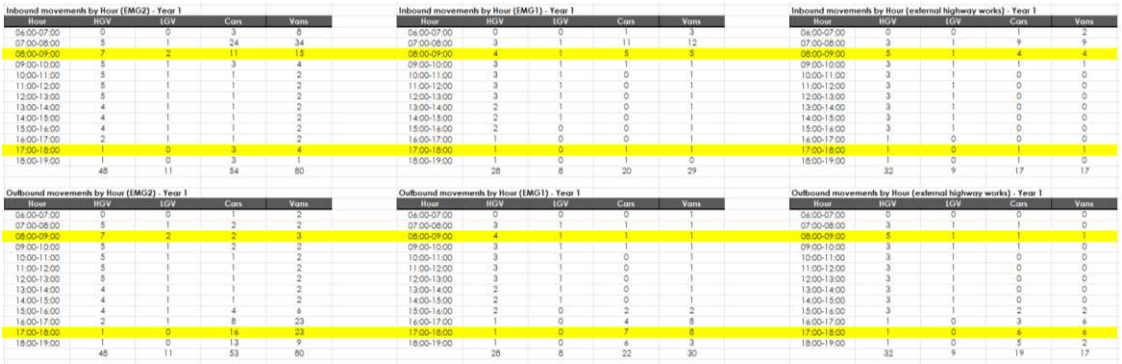
% Arrivals by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
	100%	100%	100%	100%

% Departures by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
	100%	100%	100%	100%

2.16 Hourly arrivals and departures for each vehicle type are then calculated by multiplying the daily one-way movements to the percentages above. This has been split by the various locations, EMG2, EMG1 and Off-site highway works as they will have different origin/destination points on the network.



2.17 From this, total arrivals and departures can be calculated. This provides the final peak hour construction movements, which are set out in the report ref EMG2-BWB-GEN-XX-RP-TR-0013 and to be used for further assessment.

Inbound movements by Hour (total development) – Year 1				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	12
07:00-08:00	11	3	44	56
08:00-09:00	17	3	19	25
09:00-10:00	11	3	5	6
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	2	2
16:00-17:00	4	2	2	2
17:00-18:00	3	1	5	6
18:00-19:00	2	1	5	1
	110	29	98	120

Outbound movements by Hour (total development) – Year 1				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	2
07:00-08:00	11	3	3	2
08:00-09:00	17	3	4	5
09:00-10:00	11	3	4	2
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	8	10
16:00-17:00	4	2	15	37
17:00-18:00	3	1	29	37
18:00-19:00	2	1	24	15
	110	29	98	120

2.18 The formulas in-built within the spreadsheet assume that vans have an occupancy rate of 3 people. It has been agreed with the TWG for vans to adopt an occupancy rate of 2 people per van. The values for vans in the tables above have therefore been multiplied by 1.5 to calculate this. These are shown in the tables at the bottom of the excel spreadsheet, with the revised total development construction vehicles shown below.

Inbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	18
07:00-08:00	11	3	44	84
08:00-09:00	17	3	19	38
09:00-10:00	11	3	5	9
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	2	3
16:00-17:00	4	2	2	3
17:00-18:00	3	1	5	9
18:00-19:00	2	1	5	2
	110	29	98	180

Outbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)				
Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	3
07:00-08:00	11	3	3	3
08:00-09:00	17	3	4	8
09:00-10:00	11	3	4	3
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	8	15
16:00-17:00	4	2	15	56
17:00-18:00	3	1	29	56
18:00-19:00	2	1	24	23
	110	29	98	180

Appendix 2. Construction Traffic Flow Calculations Spreadsheet Extract

Rev 4

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	19.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	**-**	**32.65**	21.09	-	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	-	**6.53**	4.22	-	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	-	**19.59**	42.18	-	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	-	**19.59**	31.63	-	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	-	-		-				-				39.54			
Yr 3	LGV	**7.91**	**7.91**	-	-		-				-				7.91			
Yr 3	Car	**19.77**	**19.77**	-	-		-				-				19.77			
Yr 3	Vans	**26.36**	**26.36**	-	-		-				-				26.36			
Yr 4	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 4	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 4	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 4	Vans	**26.36**	**26.36**	-	-						-	-			26.36			
Yr 5	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 5	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 5	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 5	Vans	**26.36**	**26.36**	-	-						-	-			26.36			

TOTAL

APPENDIX 17: TA & ES Assessment Methodology (document reference EMG2-BWB-GEN-XX-RP-TR-00017_S2-P4)

PROJECT NAME	East Midlands Gateway Phase 2 – TA & ES Chapter Assessment Methodology		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0017	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Simon Hilditch	REVISION	P4
APPROVED	Paul Wilson	DATE	28/04/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is working with the Transport Working Group (TWG) consisting of key statutory highway authorities, including National Highways, Leicestershire County Council and Nottinghamshire County Council on the East Midlands Gateway 2 (EMG2) project.

1.2 Transport modelling has been undertaken using Leicestershire's Pan Regional Transport Model (PRTM) to assess the impacts of EMG2. In agreement with the TWG, forecast years of 2028 and 2038 have been adopted, which reflect the year of opening and post 10 years.

1.3 The forecast year PRTM modelling has been undertaken in two stages, referred to as 'Stage 1a modelling' and 'Stage 1b modelling'. This was to separate the scenarios required by the highway authorities for the Transport Assessment from those needed for environmental assessment purposes because there are differences in the planning data assumptions and developments included in the baseline traffic, as summarised below:

- **Stage 1a modelling** (Proforma v14, Uncertainty Log v7) = 2028/2038 forecast years with and without EMG2, including, consented and committed sites as well as draft Local Plan allocation sites and Ratcliffe on Soar power station, which is authorised by a Local Development Order (LDO).
- **Stage 1b modelling** (Proforma v14a, Uncertainty Log v7a) = 2028/2038 forecast years with and without EMG2, including consented and committed sites but excluding the draft Local Plan allocation sites and Ratcliffe on Soar power station (beyond the element of Ratcliffe power station development which is currently able to proceed under the LDO).

1.4 The difference between Stage 1a and 1b is the inclusion or exclusion of the Ratcliffe Power Station and the draft Local Plan allocation sites, which represent the following projects:

- Isley Woodhouse (W1)
- Land North and South of Park Lane, Castle Donington (CD10)
- Land West of Hilltop Farm, Castle Donington (EMP89)
- Land North of J11/M42 (EMP82)
- Land North of Remembrance Way, Kegworth (EMP73)
- Land North of Derby Road, Kegworth (EMP73)

1.5 This note sets out the basis for the two stage approach to modelling and the policy context for it.

2. POLICY REQUIREMENTS

Department for Transport TAG M4 'Forecasting and Uncertainty' Guidance

2.1 The Department for Transport TAG M4 Forecasting and Uncertainty guidance is primarily used for the appraisal of new transport schemes. This is arguably applicable to the highway works element of the EMG2 scheme, particularly given they are focussed on the Strategic Road Network.

2.2 Accordingly, Stage 1a modelling is based on the application of TAG M4.

2.3 Paragraph 3.2.4 of M4 refers to four categories of sites for consideration for inclusion in the core scenario[1], being:

- **Near certain**: The outcome will happen or there is a high probability that it will occur
- **More than likely**: The outcome is likely to happen, but there is some uncertainty
- **Reasonably foreseeable**: The outcome may occur, but there is significant uncertainty surrounding it
- **Hypothetical**: There is considerable uncertainty whether the outcome will ever happen

2.4 Paragraph 3.2.4 states:

> *"Local sources of uncertainty categorised as **near certain** should be included in the core scenario, whilst all sources categorised as **hypothetical** should be excluded. Between these two categories an element of judgement may be required but usually it would be expected that those inputs categorised as **more than likely** will be included in the core scenario, whilst those categorised **as reasonably foreseeable** will be excluded.*

2.5 Whilst it could be argued that not all the draft allocated sites meet the criteria of "more than likely" and some could be considered to fall within the "reasonably foreseeable" category, the highway authorities, applying their judgement, require that all the sites be treated the same and be included in the core scenario. The Applicant has agreed to this.

2.6 The forecasting/profiling of these draft Local Plan allocations and the Ratcliffe power station within Uncertainty Log v7 has been agreed with the relevant local highway and planning authorities, based on their judgement and expectations for them receiving planning permission and being built out.

2.7 Although the anticipated traffic from the draft Local Plan allocations is being included, any associated highway mitigation is not included. This is with the exception of the

[1] Table A2 Appendix 2 M4 defines these terms

proposed realignment of the A453 around the Isley Woodhouse draft allocation, which is included in the agreed Uncertainty Log v7 for Stage 1a modelling because it forms part of the access strategy for that development.

2.8 The Uncertainty Log v7 does include committed highway network changes, the list of which has been agreed with the local highway and planning authorities and are included in both Stage 1a and 1b modelling. This is in accordance with Paragraph 7.4.15 of TAG M4, which requires the without scheme scenario to include *"physical changes to highway or public transport networks, including new links and removal of existing links…"*

2.9 Since it is not possible to include additional off-site mitigation that is likely to be required to accommodate the draft Local Plan allocations, the inclusion of those sites in the Stage 1a scenario will provide a robust and worse than worst-case assessment of future impacts on the highway network. Therefore, it has been agreed that Stage 1a modelling outputs (i.e. including draft Local Plan allocations) are adopted as the core scenario within the Transport Assessment. As agreed with the TWG, this will also form the cumulative scenario for the transport modelling.

2.10 The Stage 1a modelling therefore reflects the above approach.

Department for Transport Circular 01/2022 'Strategic Road Network and the Delivery of Sustainable Development'

2.11 Circular 01/2022 sets out the Secretary of State's national policy requirements for the Strategic Road Network (SRN). Paragraph 49 covers details on the 'assessment of development proposals' and states:

> *"A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments [footnote 21] that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered [footnote 22]."*

2.12 Footnote 21 describes committed developments as:

> *"Where development proposals are consistent with an up-to-date plan or strategy (or where there is no up-to-date plan or strategy), this should include all relevant development that is consented or allocated where there is a reasonable degree of certainty will proceed within the next 3 years and include the full amount of development to be built. Where development proposals are not consistent with an up-to-date plan or strategy, this should include all relevant development that is*

consented or allocated over the entirety of the plan period. In some instances, due regard should be had to permissions and allocations in neighbouring authorities. The inclusion or exclusion of specific developments should be agreed with the local planning authority at pre-application stage."

2.13 The key difference with Circular 01/2022 policy from the TAG M4 Guidance is that to comply with 01/22, the core scenario should only include consented or allocated sites and their associated mitigation, i.e. it does not include draft allocations.

2.14 The Stage 1b modelling is therefore compliant with the Circular 01/2022 policy.

IEMA Guidelines: Environmental Assessment of Traffic and Movement

2.15 The EMG2 development triggers the requirement for an EIA. The guidance for Environmental Assessment is set out in the IEMA Guidelines: Environmental Assessment of Traffic and Movement (July 2023).

2.16 Paragraph 2.23 states that:

"Different traffic forecasts may have to be produced for each stage, which may also require the estimation of the changing patterns of general traffic levels in order to provide estimates of different baseline conditions. Use should be made of available datasets (e.g. Local Plan Traffic Models, Department for Transport Trip End Model Presentation Program (TEMPro) and National Traffic Model). It may also be necessary to make an assumption with regard to other existing and/or approved projects and forecasted changes in the highway network that could occur over the time period. These assumptions will need to be based on best judgement taken in consultation with the local planning authority. Any changes in ambient environmental characteristics should also be taken into account."

2.17 Paragraph 2.24 of the IEMA Guidelines states:

"Transport Assessments are principally interested in evaluating a situation when traffic flows are at their greatest. This may involve looking at a period sometime in the future when traffic from the project is added to traffic flows on the surrounding network, which has itself increased due to natural traffic growth. Such a situation clearly presents the critical traffic pattern, but the natural increase of traffic will generally have the effect of diluting the environmental impact of a project. The greatest environmental change will generally be when the project traffic is at the largest proportion of the total flow. It is therefore recommended that the environmental assessment should be undertaken at the construction/decommissioning phase, year of opening of the project or the first full year of its operation."

2.18 Paragraph 2.29 discusses the baseline assessment and states the following:

"Future baseline and cumulative assessment should not be confused. They are two different considerations within the environmental assessment process. Derived forecast traffic growth (e.g. TEMPro) should be utilised to derive future year baseline

traffic conditions. However, discrete projects within the agreed study area that are existing, approved or likely to come forward (where sufficient certainty and relevant information about the project exists) should not be added to the baseline scenario and should be considered in the cumulative scenario. The competent traffic and movement expert should exercise care to ensure:

- *'Double counting' is avoided when applying growth factors to the baseline that may have been influenced by approved projects that are being considered in the cumulative scenario,*
- *The proposed transport model has adequate scope to model cumulative scenarios (as they may differ from those required in the Transport Assessment).*

2.19 The words underlined above demonstrate the difference between the approach taken by the highway authorities in the application of the TAG M4 guidance and the approach required to comply with IEMA Guidelines.

2.20 The Stage 1b modelling is compliant with the IEMA Guidance for the core scenario, whilst Stage 1a modelling is compliant for the cumulative scenario.

3. ASSESSMENT METHODOLOGY

3.1 In accordance with the above consideration of the relevant policies, the modelling and related assessment is being undertaken on the following basis:

i Stage 1a modelling to comply with the highway authorities interpretation of the TAG M4 Guidance

ii Stage 1b modelling to comply with the guidance in Circular 01/22 and IEMA

3.2 The Stage 2a[2] modelling will also provide the cumulative assessment required for the IEMA assessment.

4. SUMMARY

4.1 The assessment methodology follows detailed discussions with the Transport Working Group. The above review of current adopted policy within the Department for Transport's TAG M4, Circular 01/2022 and IEMA Guidelines documents explains how the agreed assessment methodology, and in particular the modelling being undertaken, is compliant with those policies.

4.2 The key difference in policy requirements is the forecast year baseline position and the developments that should be included in the core scenarios.

[2] The original note incorrectly referred to Stage 1a

4.3 Taking this into account, the following methodology is adopted for the Transport Assessment and Transport ES Chapter:

- **Transport Assessment** – core scenario adopts the Stage 1a modelling, inclusive of draft Local Plan allocation sites, with a sensitivity test using the Stage 1b modelling excluding the draft Local Plan allocation sites due to the lack of mitigation measures included within the Stage 1a modelling associated with the draft Local Plan allocations.

- **Transport ES Chapter** – core scenario adopts the Stage 1b modelling with cumulative assessment based on Stage 1a.

4.4 The above approach should ensure that a robust assessment of EMG2 is undertaken within the Transport Assessment and Transport ES Chapter, in accordance with adopted planning policy and assessment requirements.

APPENDIX 18: COBALT Assessment Methodology (document reference EMG2-BWB-GEN-XX-RP-TR-00018_S2-P1)

PROJECT NAME	East Midlands Gateway Phase 2 – COBALT Assessment Methodology		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0018	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	AJ Oakes	REVISION	P1
APPROVED	Paul Wilson	DATE	12/05/25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is working with the Transport Working Group (TWG) consisting of key statutory highway authorities, including National Highways, Leicestershire County Council and Nottinghamshire County Council on the East Midlands Gateway 2 (EMG2) project.

1.2 A Highway Safety Position Statement was produced in March 2025 (Technical Note EMG2-BWB-GEN-XX-RP-TR-0015 Revision P1) summarising Personal Injury Collision (PIC) records on the highway network in the vicinity of the EMG2. This identified existing safety problems at the following three locations:

- **EMG1 access junction** – a cluster of PICs have been recorded due to turning movements from the A6 to EMG1 colliding with drivers travelling southbound on the A453.
- **M1 Junction 24** – a cluster of PICs have been recorded on the M1 northbound off-slip on approach to the roundabout.
- **A453/The Green** – a cluster of PICs have been recorded due to right turning movements from the A453 west into The Green.

1.3 Traffic modelling has been undertaken using Leicestershire's Pan Regional Transport Model (PRTM), a strategic highway assignment model. This tested forecast years of 2028 and 2038, with and without the EMG2 development and more recently with the inclusion of the proposed highway mitigation.

1.4 The proposed highway mitigation is focused on the A453 corridor between Finger Farm roundabout (M1 Junction 23A) and M1 Junction 24, with the key piece of infrastructure comprising a new free flow link from M1 northbound to A50 westbound, allowing traffic to bypass Junction 24. Traffic flows for each of the forecast year scenarios have been obtained from PRTM and will be used for the COBALT assessment.

1.5 The purpose of this Technical Note is to set out the methodology for the COBALT assessment for agreement with the TWG. The COBALT assessment aims to understand the impacts of the EMG2 development and proposed highway mitigation on the rates and severity of PICs and associated cost implications.

2. WHAT IS A COBALT ASSESSMENT?

2.1 COBALT (Cost and Benefit to Accidents – Light Touch) is a computer program developed by the Department for Transport to assess and quantify the change in PIC rates as a direct result of new road schemes. It does so by comparing the rates of PICs by severity and the associated costs across an identified network in a 'without scheme' and 'with scheme' scenario, using details of link and junction characteristics, PIC rates, casualty costs and projected traffic volumes.

2.2 The guidance for undertaking COBALT assessments is detailed within TAG Unit A4.1 'Social Impact Appraisal'. Section 3 covers the 'Use of Accident and Casualty Values for Appraisals' and sets out the purpose of COBALT assessments in more detail.

2.3 The techniques used in COBALT to estimate the change in PIC rates are based on established parameters for the number of collisions per million vehicle kilometres travelled on different types of roads. As the number of vehicle kilometres change following implementation of a highway scheme, the number of PICs will also expect to change.

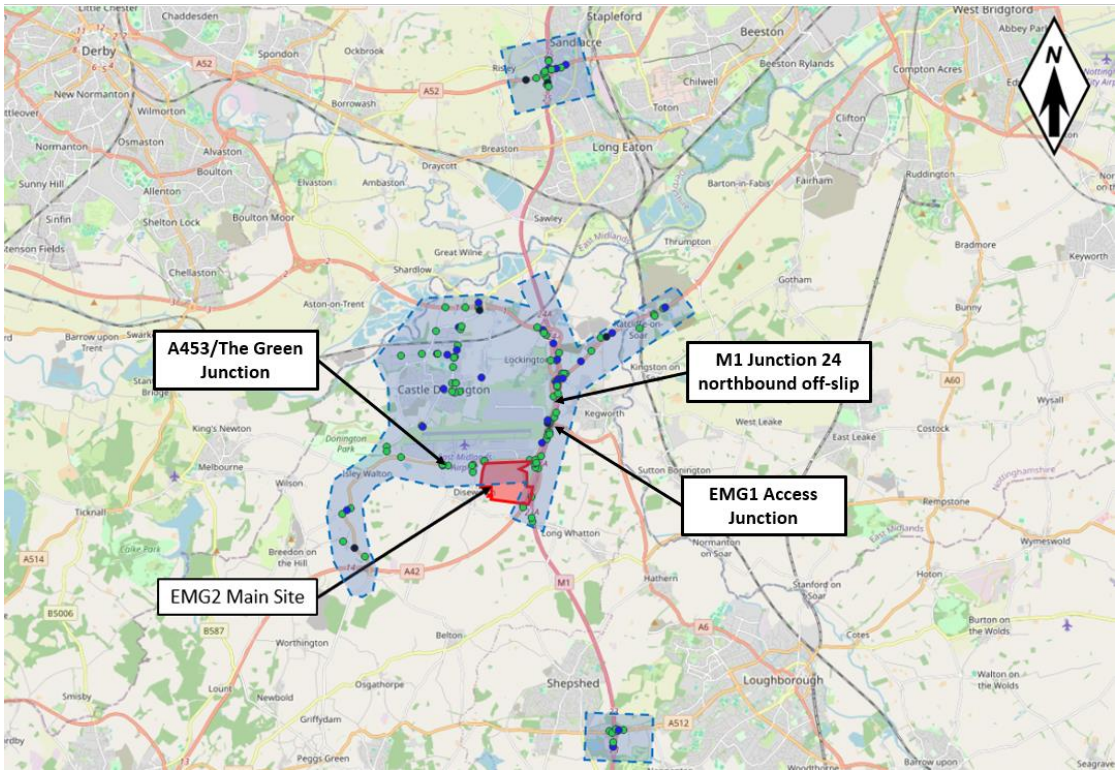
2.4 COBALT assesses the safety aspects of road schemes using detailed inputs of either separate road links and road junctions that would be impacted by the scheme or combined links and junctions. The assessment is based on a comparison of collisions by severity and associated costs across an identified network in 'Without Scheme' and 'with scheme' forecasts, using details of link and junction characteristics, relevant collision rates and costs and forecast traffic volumes by link and junction.

2.5 COBALT calculates the total cost of PICs on a road network by multiplying the change in number of PICs between the 'without scheme' and 'with scheme' scenarios by a value of prevention of a PIC. The value of a PIC varies by severity and area of road; i.e. a higher cost factor is applied to a fatal PIC compared to a PIC resulting in slight injuries.

3. ASSESSMENT METHODOLOGY

3.1 The Highway Safety Position Statement reviewed PIC records across a comprehensive study area of junctions and associated links, as shown in **Figure 1**.

Figure 1. Personal Injury Collision Study area



3.2 The assessment identified three locations with existing safety problems, shown in **Figure 1** and summarised in Section 1. Two of the locations are on parts of the network included in the proposed highway mitigation, whilst the third location is at the A453/The Green junction to the west of the EMG2 site.

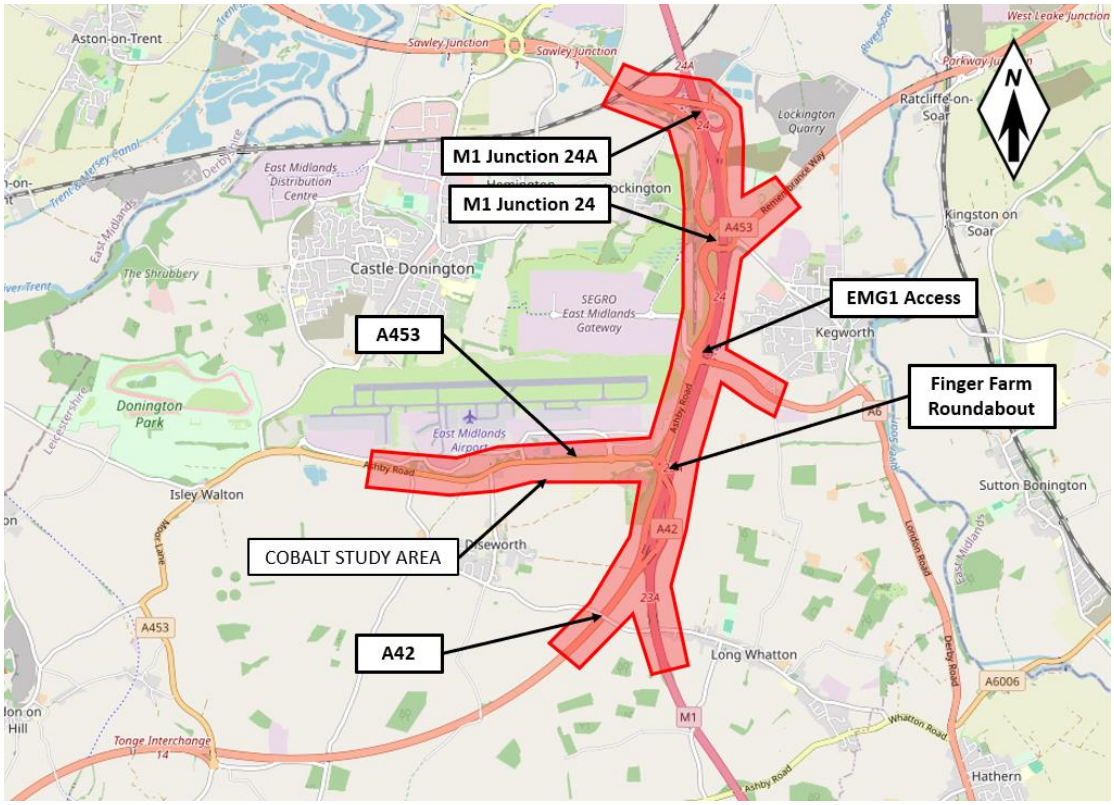
3.3 The predicted change in PIC rates from the COBALT assessment will largely be dependent on the change in traffic flows between the 2028/2038 'without scheme' and 2028/2038 'with scheme' scenarios. In this instance, the 'scheme' relates to the EMG2 development and associated highway mitigation. Where there is expected to be a minimal change in traffic flows, the outputs from COBALT will likely predict a "negligible" change in the PIC rates or severity.

3.4 It is therefore proposed that the COBALT assessment includes junctions and links that are predicted to experience a material change in traffic flows during the 'with scheme' scenario. This will be determined by comparing PRTM flows between the 2028/2038 with scheme scenario against the 2028/2038 without scheme scenario.

3.5 Initial PRTM outputs have been received from the Stage 2a modelling showing the change in traffic flows as a result of the scheme. Whilst the modelling and mitigation is

still being finalised, there are not anticipated to be any fundamental changes to the scheme and therefore it is anticipated that the following links/junctions will form the study area for the COBALT assessment and experience a higher change in traffic. Should any other links/junctions be identified once the PRTM modelling has been finalised, then they will be included. The location of the proposed study area is shown in **Figure 2**.

Figure 2. Proposed COBALT Study Area



3.6 The data shows that the largest flow changes are expected to occur on the A453 corridor between the A453/The Green junction and M1 Junction 24, which includes all three locations with existing safety problems and the area accommodating the proposed highway mitigation. It is proposed that this forms the study area for the COBALT assessment.

3.7 Full details of the COBALT assessment and analysis of the predicted change in PIC rates and severity will be provided in the Transport Assessment.

4. SUMMARY

4.1 This Technical Note has proposed a methodology to be adopted for undertaking a COBALT assessment for the EMG2 Transport Assessment. It builds on the details in the Highway Safety Position Statement (Technical Note EMG2-BWB-GEN-XX-RP-TR-0015 Revision P1), which summarised existing Personal Injury Collision records and identified three locations on the highway network where there are existing safety problems.

4.2 A summary of the assessment methodology to be adopted is provided below:

- The study area for the COBALT assessment will be determined by comparing forecast traffic flows from PRTM between the 'without scheme' (2028/2038 forecast year without development) and 'with scheme' (2028/2038 forecast year with development, with mitigation) scenarios.

- Links and junctions that are expected to experience a material change in traffic, or that have existing safety problems, will be included in the COBALT study area.

- Based on the outputs from PRTM and the above methodology, it is proposed that the study area for the COBALT assessment includes the A453 corridor between the A453/The Green junction and M1 Junction 24, along with sections of the A42 and M1 in the vicinity of Junction 23A.

4.3 This COBALT assessment will determine the change in PIC rates and severity across the study area with the EMG2 development and associated mitigation in place. The details will be included within the Transport Assessment.

APPENDIX 19: Transport Working Group Meeting Minutes

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT INCEPT/INITIAL SCOPING MEETING; THURSDAY 28 APRIL 2022 AT 1400 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) & Eri Wong (EW) – National Highways (NH)
Geoff Blissett (GB) – Derbyshire County Council (DCC)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Lisa Guest (LG) – Nottingham City Council (NCityC)
Simon White (SW) & Anthea Anderson (AA) – Leicester City Council (LCityC)
Imogen Smazanovich (IS) – Segro
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Stephanie Meyers (SM) - ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Introductions** a. Having all introduced themselves, PW confirmed that Andy Gibbard of Derby City Council is happy to keep a watching brief on the project, but would be interested in understanding the impacts of the proposals to understand the area of influence (AOI) and distribution. LG suggested similarly for NCityC.	
2	**Current position planning wise** b. IS provided an overview of the site and other local Freeport sites; the site measures a total area of c.250 acres and forms part of the EMAGIC tax site within the East Midlands Freeport. There are also other Freeport sites being considered at Ratcliffe-on-Soar Power Station in Rushcliffe and the East Midlands Intermodal Park in South Derbyshire. The site has been legally Designated as a Tax Site by central government as of March 2022, with a large economic status. c. IS set out the timescales for the planning process; an outline planning application to be submitted in Q4 of 2022, with consent anticipated at Q3 of 2023, infrastructure improvements to commence in Q4 of 2024, and construction of buildings to commence alongside the infrastructure. Some of the Freeport tax incentives including business rates relief are scheduled to end in September 2026; therefore it is important to enable maximum building occupation before this date in order to enable businesses and the region to leverage the maximum benefit from the tax incentives offered by central government. d. Hence because of the tight timescales IS asked those on the call to consider what can be done to achieve said timescales, such as expediting the drafting Section 278 agreements for example? e. RH asked about whether any engagement has taken place with North West Leicestershire District Council (NWLDC). IS confirmed that an initial	

	engagement meeting took place on 27/04/22 and that regular contact will now continue throughout the pre and post planning stages. Adam Mellor at NWLDC is the planned case officer. f. GB asked why the application was being submitted through the normal planning route and not through a Development Consent Order. IS confirmed that a normal planning application is to be submitted because there is no rail freight terminal included in the proposals and the application is not deemed to be a nationally significant infrastructure project (NSIP).	
3	**Proposed Development** a. IS provided an overview of the site location being to the south of East Midlands Airport and A453. The site will be marketed as an extension to EMG Phase 1, although not located directly adjacent to it. b. IS set out the development proposals comprising 300,000sqm of employment development (excluding any mezzanines - TBC) with an 80%/20% B8 (logistics)/B2 (manufacturing) split, although the final split will largely be driven by the traffic impacts. The site is intended to cater for advanced manufacturing and logistics companies. c. EW requested a plan showing the locations of all the Freeport sites and further information to provide context.	**IS**
4	**Proposed approach to be adopted to inform the scoping work** a. PW provided an overview of previous discussions with RH confirming that LCountyC's preference is to use the Pan Regional Transport Model (PRTM). b. RH confirmed that the neighbouring authorities work closely together and have regular discussions about the different models and in particular the PRTM vs the 'Gateway' model. Each model ultimately has its own benefits and downfalls but both should provide an accurate assessment of the traffic impacts. c. SF asked whether the PRTM and Gateway models complement each other highlighting that the Ratcliffe-on-Soar application recently used the Gateway model. d. TB confirmed that NCountyC's preference is to use the Gateway model, although acknowledged that LCountyC are the local highway authority and hence would ultimately go with their preferred model choice. GB agreed with TB. e. EW confirmed that NH are open to using either model as long as the AOI is adequately modeling on the Strategic Road Network from a validation perspective. The base years would also need to be agreed and hence EW suggested a step by step approach is undertaken to ensure each aspect of the modelling is agreed beforehand to avoid abortive work. PW confirmed that NH and the other authorities would be contacted at each modelling stage for their confirmation.	

	f. PW confirmed that the study area for both models include the site, however RH confirmed that contact should be made with LCountyC's Network Data and Intelligence (NDI) team to understand whether any recently completed traffic surveys are available to finesse the modelling outputs, to inform whether any new surveys are required. g. RH confirmed that the distribution approach to be adopted in the modelling work needs discussing in further detail. For example, would it mirror that of the Phase 1 scheme?	
5	**Highway authorities initial considerations** a. EW highlighted a potential issue that the NH Smart Motorway scheme opened between Junctions 23a-25 of the M1 prior to the Covid pandemic and hence this will need to be considered as part of the modelling work. b. PW asked whether there is any preference on the future years to be assessed in the modelling. RH confirmed that the PRTM can assess any year and provided a link to the PRTM web page for BWB to review. c. IS suggested that the proposed development is expected to be fully built out by 2030/1 (subject to the timescales in Section 2 being met) which may ultimately determine the future year assessment needed. d. RH advised that the PRTM pro-forma is not submitted to until the details have been signed off/agreed with each of the authorities. However, the Local Model Validation Report could be commissioned beforehand to get the base model review. PW confirmed he would however get discussions started with NDI to obtain quotes to try and assist timescales wise. e. EW confirmed that from an NH perspective, the DfT Circular 02/2013 should be followed. PW confirmed that this would be considered in detail. f. PW provided an overview of the Scoping Note, confirming that it would include the forecast traffic generation for the weekday peak hour periods plus the modal split/person trip generation calculations. However, the Scoping Note would not include any details on an initial distribution given this is to be determined by the PRTM but will set out details of the next steps to inform the remainder of the scoping discussions/TA. g. RH confirmed that this was acceptable, but each step needs agreeing beforehand. The PRTM includes committed developments for all adjoining authorities, however a sensitivity test including the other Freeport sites and the proposed residential led development at the neighbouring Isley Woodhouse site (which is being assessed using PRTM) will need completing. Therefore, assessment scenarios need to be agreed with all authorities. h. SM provided an overview of the Travel Plan process at EMG Phase 1 confirming that 24% of staff currently travel by bus which is way above the 8% target set at this stage of the process. Hence, a similar approach to the Travel Plan process will be undertaken for the proposed development	**PW/MC**

	given the success at Phase 1. i. With regards to sustainable transport, EW confirmed that thought is required with regards to maximising such opportunities and take advantage of the high profile nature of the proposals to make it a really good site on all fronts. j. SW confirmed that consideration should be given to HGV routing, as HGVs do not necessarily stick to the major ring roads and often route through city centres (Leicester in particular). This will need looking at once the modelling has been undertaken. SW also confirmed that the modelling work should consider the effect on the Leicester City network, particularly the outer ring road junctions from the Fosse Park area to A6 Birstall. Opportunities to support sustainable transport including A6 buses between Leicester and EMA should be explored and maximised. LCityC would work actively with LCountyC as Lead Highway Authority k. IS confirmed that SEGRO take part in a wider Site and Infrastructure Working Group to discuss the infrastructure needs for all local Freeport sites.	
6	**Next steps & associated timescales** a. PW confirmed timescales for submitting the Scoping Note, which would ideally be over the next couple of weeks subject to the floor areas/use classes being agreed within the project team. b. RH acknowledged the timescales but confirmed that they could be challenging with other demands across the county and confirmed that LCountyC's typical timescales for responding are 42 days which can be reduced to 28 days if information is formally submitted through NWLDC. c. RH requested for a detailed programme to set out the level of input needed so that LCountyC, and no doubt the other authorities, can plan accordingly.	**PW/IS**
7	**AOB** a. Nothing further was raised. The project team thanked the authorities for their time.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; WEDNESDAY 27 JULY 2022 AT 1030 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) & Catherine Townend (CT) – National Highways (NH)
Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Lisa Guest (LG) – Nottingham City Council (NCityC)
Imogen Smazanovich (IS) – Segro
Stefan Stojsavljevic (SS) – Delta Planning
Jon Parker (JP) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Geoff Blissett (GB) – Derbyshire County Council (DCC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Simon White (SW) & Anthea Anderson (AA) – Leicester City Council (LCityC)
David Green (DG) – Delta Planning
Stephanie Meyers (SM) – ITP

MINUTES:

Agenda item		Action
1	**Introductions and Apologies** a. Following HH and CT introducing themselves, having missed the first meeting on 28 April 2022, PW mentioned the attendees that were unable to make the meeting. b. GB confirmed by email that DCountyC has had sight of the scoping note and that they are happy for LCountyC to take the lead in agreeing trip rates. In addition, Gb confirmed that it will be important that appropriate infrastructure is provided to ensure connections can be made between the site an EMGP1, the surrounding residential settlements and East Midlands Airport building on the approach implemented at EMGP1. c. SW confirmed by email that: • Trip Rates – LCityC would defer to LCountyC. • Scoping Note – our views regarding potential impact on the City outer ring road junctions have already been established and scoping should include that. Likewise for public transport support and opportunities for the A6 bus routes serving Leicester City.	
2	**Scheme Updates** a. IS provided recent planning updates, confirming that SEGRO has been developing the site masterplan, which should be issued to the project team and highway authorities soon. b. IS confirmed that a public consultation has been organised for early November.	

c. IS set out that from a Freeport perspective, SEGRO will be attending monthly board meetings, with a forthcoming meeting scheduled for next week. SEGRO will be providing an update to the board and hence the outcome of this meeting will be key to those updates. SEGRO will be presenting the monthly meetings to representatives from the upper tier and lower tier authorities and the Department for Levelling Up, Housing and Communities.

d. JP provided an overview of ITP's recent public transport discussions; confirming that a meeting had been held with Tom Morgan at Trent Barton. The idea at this stage is to develop a similar strategy to EMG Phase 1 with public transport being a key mode, given the surrounding infrastructure and the successes at Phase 1 (EMG Phase 1 currently achieving a circa 25% mode share of travel by public transport).

e. LG confirmed she had attended a recent meeting on the Ratcliffe-on-Soar scheme and queried the patronage that could be available for people travelling to Phase 2 by bus because of the demands to each of the Freeport sites locally.

f. JP confirmed that the key issue for Trent Barton is diverting existing services to key areas where services can be fast and reliable. Hence, the reason a minibus service was introduced at EMG Phase 1 was to transport staff/visitors to the bus interchange at the site entrance, which removes the need for a commercial bus service to have to travel deep into the site.

g. JP shared a figure with all attendees showing four potential options for improving public transport at EMG Phase 2. The options included:

   i. Providing a main stop at the EMG Phase 2 site entrance and diverting existing services to this location. A minibus service would be introduced internally to transport staff/visitors to this location (as per the EMG Phase 1 approach).
   ii. Provide a new bus interchange close to the Pegasus Business Park junction (i.e. at the eastern entrance to EMG Phase 2), with staff/visitors then using a shuttle bus and/or walking / bike hire to the site.
   iii. Provide a connecting shuttle bus to the bus stops on the southern exit from Pegasus Business Park, upgrading the kerb side facilities to provide an interchange between services.
   iv. Introduce a minibus shuttle service from EMG Phase 2 to an enhanced public transport interchange elsewhere where existing bus services currently travel to (for example EMG Phase 1 bus interchange or EMA Interchange).

h. RH suggested that a more strategic plan for bus improvements across all Freeport sites should be considered, rather than each individual site looking at improvements in isolation. This could also consider the possible interaction and movement of people between sites, although acknowledged that this may not be known until end occupiers have been identified.

	i. IS agreed that a wider strategic plan would be beneficial, although confirmed that the tax benefits within the Freeport sites would not necessarily increase inter-site movement compared to other industrial estates. j. RH clarified the above suggesting that there is the potential for the same businesses to occupy multiple Freeport sites (such as Amazon) who could then generate movements between each site. k. RH went on to say that conversations between Developers and Trent Barton have been individual and whilst Trent Barton may be content with diverting existing services to one Freeport site, this then may not be possible for another Freeport site and hence a collaborative strategy would work best. l. JP confirmed that Trent Barton is aware of the bigger picture, but IS confirmed that a meeting will be organised between the Freeport developers and Trent Barton to start these discussions with the view to agreeing a wider strategy.	**IS/JP –** SEGRO has contacted Uniper to request a meeting
3	**Scoping Note** a. PW asked NH whether they had any initial questions having issued their scoping response on 12 July 2022. b. CT confirmed that she will now be leading on the scheme from a NH perspective, with SF remaining involved. CT is catching up on the Scoping Note and confirmed that whilst public transport was clearly key to the scheme, NH are conscious of trips still being generated on the SRN which may travel to the public transport interchanges and hence how any public transport strategy will interact with the development. c. PW provided an overview of the contents of the Scoping Note. In summary, the note focusses on trip rates for B2 and B8 uses and how these compare against EMG Phase 1. Modal split data was considered in various ways; including the 2014 Transport Assessment, 2011 Census data and the current EMG Phase 1 modal split. It also sets out the assessment criteria and modelling scenarios. d. PW provided an overview of NH scoping response; NH confirmed that the B2 trip rates are acceptable, however queried the B8 trip rates. NH also confirmed that the modal split from the 2014 Transport Assessment should be used initially. e. MC confirmed that BWB had revisited the B8 trip rates from TRICS by removing three of the six sites generated from TRICS search, that NH considered incomparable to the proposed development. The revised trip rates were slightly higher in the morning peak hour (circa 0.190) but lower in the evening peak hour (circa 0.11), hence concluding that the rates in the Scoping Note should be acceptable.	

	f. SF confirmed that the revised TRICS search/trip rates therefore address NH concerns, however requested for the impacts of HS2 to be considered. g. TB confirmed that he pushed for HS2 to be considered on the Ratcliffe-on-Soar application and that discussions with the Department for Transport and HS2 were held. However, HS2 is predicted to be completed in the 2040's and hence is hard to factor in, with many unknowns, hence the Ratcliffe-on-Soar application has not included HS2 as a sensitivity test. h. HH asked whether anything had been received from NH on the B8 trip rates. i. PW confirmed that NH has focused on the TRICS rates in their response, however BWB consider these to be suitable, particularly when noting the recent survey results undertaken at EMG Phase 1 and set out in ITP's note issued on 20 July 2022. j. HH confirmed that the ITP note is useful but queried what the purpose of it is and whether it is to show what the EMG Phase 1 trip rates are vs those used in the 2014 Transport Assessment or to understand the impacts of mezzanines and whether a 60% uplift can be built without causing traffic issues. k. PW confirmed that the purpose of the note is both the above; SEGRO were intrigued about how EMG Phase 1 has panned out and what the traffic levels currently are, but also to understand whether the introduction of mezzanines (circa 50% uplift on ground floor space) has had any significant impacts on traffic generation. IS confirmed that this was correct. l. HH asked how the mezzanines were introduced and whether these were included in the Transport Assessments or had planning permission. m. PW confirmed that the EMG Phase 1 Transport Assessment considered circa 500,000sqm of ground floor space but no mezzanines. As Reserved Matters applications came forward, mezzanines were included in the plans but no additional Transport Assessment was provided, hence the project team were intrigued as to the effects of this. n. HH confirmed that LCountyC's preference is for the trip rates from EMG Phase 1 to be retained. RH agreed with this. o. PW confirmed that BWB are happy to retain the trip rates from EMG Phase 1, as whilst they are slightly higher, they are largely comparable to those in BWB's Scoping Note. However PW reiterated that the reason the trip rates were changed was because the EMG Phase 1 rates are 10 years old. However, BWB would not want to adopt higher rates given the recent survey results as the EMG Phase 1 rates should be overly robust. p. SF confirmed that NH are happy with that approach, although need a formal response from BWB. PW confirmed this would be acceptable and asked whether all authorities would agree with this.	

	q. RH confirmed that the joint authorities signed up to the EMG Phase 1 trip rates in 2014 and the follow up survey work shows these were robust. Therefore, LCC would be content with retaining these trip rates although they would need to be presented within a revised note. NH, NCountyC and NCityC confirmed they were content with this approach. r. HH discussed the modal split and that the original percentages within the EMG Phase 1 Transport Assessment should be used, with measures set out in the Travel Plan to reduce car usage. However, the Transport Assessment work should not reduce the number of trips based on future travel planning targets. s. PW confirmed that the trip rates will be taken in full, with no reduction to the traffic generation to account for Travel Plan targets at this stage of the process. HH agreed this was acceptable.	
4	**EMG Phase 1 trip generation comparison note** a. PW confirmed that many of the agenda points for Section 4 had been covered in Section 3. b. RH mentioned that it should not be assumed that the same public transport success for EMG Phase 1 can be applied to EMG Phase 2 as the pool of people travelling from nearby areas in Castle Donington, Diseworth and Kegworth may be more limited. However, the home locations of future staff would not be known until end occupiers have been identified. PW confirmed that this would be considered.	
5	**PRTM Modelling** a. PW provided an initial overview of the discussions held to date with LCC's NDI team regarding the PRTM, confirming discussions had started and that it is understood the base year model has been updated as a result of the neighbouring Isley Woodhouse proposals. However, the PRTM would not be commissioned until agreements have been made with all the authorities. b. RH confirmed that NDI are extending the model to include for more of the network to the north of M1 J24 and also to the west, suggesting that a new version should be available in the coming weeks, however because of the updates, a Local Model Validation Report (LMVR) will be required first of all and agreed with all authorities. c. PW asked about timescales for extending the PRTM and for the authorities to review and confirm acceptance, given the tight timescales with submitting the application to meet the Freeport Tax savings. d. RH confirmed that timescales for updating the model need to be confirmed with the NDI team. LCC require a programme setting out timescales for key submission dates in order for LCC to plan resource and review outputs to meet project deadlines. IS stated that timescales are	**IS/PW**

	governed by the Freeport programme although confirmed this could be provided. e. PW confirmed that once the scoping details have been agreed, a draft proforma would be circulated around the joint authorities for agreement prior to instruction. f. HH asked about the scenarios being tested confirming that 2027 and 2032 future years are acceptable, but these would need to test the 'do minimum' (without development) and 'do something' (with development) scenarios separately. g. HH also confirmed that the PRTM is not validated at turning movement level and therefore new turning counts would be needed at all junction in the study area with the turning flows scaled up using growth factors from the PRTM. PW confirmed this was acceptable. h. CT confirmed that NH are happy with the use of the PRTM but queried whether the model only extended to M1 J24 and hence whether it would accurately assess the impacts on the SRN further afield. i. RH confirmed that once the PRTM model has been extended, it will cover more of the SRN network past M1 J24 and also further west. CT confirmed that this should therefore be acceptable. j. PW asked the authorities what developments would need to be included in a sensitivity test. RH and HH confirmed that the sensitivity tests will need to include all Freeport sites, HS2 and Isley Woodhouse, on the basis that they and NWLDC will be very keen to understand the combined effect of the two proposed developments neighbouring each other in particular. PW confirmed that BWB would liaise with NDI to check what data is already available with regard to HS2 but confirmed the above developments would be considered in the sensitivity tests. SEGRO challenged the proposal to include HS2 in the sensitivity analysis due to the current timescales of the project (2040s) and the uncertainties surrounding its delivery. k. PW also discussed preferences with regards to distributing the development traffic in PRTM. RH suggested we should look to clone EMGP1 from a parent zone perspective. l. LG confirmed that NCityC's main concerns are the impacts along the A453 leading to Clifton, particularly at the Crusader roundabout which is already over capacity. m. PW summarised the tasks that BWB would complete to address comments raised during the meeting: i. Respond with the revised trip rates and traffic generation calculations based on EMG Phase 1. ii. Draft the PRTM proforma and circulate to the joint authorities with BWB's interpretation.	**PW/MC**

	iii. Continue discussions with LCC's NDI team to progress the PRTM and to understand timescales for extending the model and whether HS2 is accounted for. iv. Agree the LMVR with the authorities before instructing the modelling.	
7	**AOB** a. Nothing further was raised. The project team thanked the authorities for their time.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 11 AUGUST 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) & Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Simon White (SW) & Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
George Nock (GN) – Jacobs; NH transport consultant
Imogen Smazanovich (IS) – Segro
Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Tom Boylan (TB) – NCountyC
Lisa Guest -Nottingham City Council
David Green (DG) – Delta Planning
Jon Parker (JP) – ITP

MINUTES:

Agenda item		Action
1	**27/7/22 Meeting Minutes Review** a. GN introduced himself and outlined his involvement in the project having not attended any previous meetings. b. GB raised a comment on the minutes from the meeting held on 27/07/22 about public transport, suggesting whether clarification should be provided that the Willington development is excluded from the wider strategy involving the other Freeport sites, given it is geographically more remote than the others. c. SF asked if because the Willington site is being excluded because its geographical location, then should the Ratcliffe on Soar site be too. d. PW confirmed that as Ratcliffe on Soar is closer to our site it will be included in the public transport strategy. e. IS confirmed that Segro has recently spoken to Uniper who are happy to arrange a meeting to discuss the public transport strategy in further detail. Uniper's traffic modelling, using the Gateway model, includes for our development and so there are benefits in sharing knowledge given we are behind them in this regard.	

2	**Scoping Agreement** a. PW provided an overview of the revised scoping email issued on 27/7/22 containing revised trip generation calculations and modal split information and asked whether any of the authorities had any comments with the details. b. RH confirmed that LCountyC had received the details and that it covers what was discussed on 27/07/22 and hence will confirm this in writing. However, LCountyC are working to standard pre-application timescales in responding to information. c. No other comments were provided hence this element of scoping is agreed.	**LCountyC**
3	**PRTM Modelling** a. PW mentioned that in recent discussions with the NDI team, it is understood the updated PRTM model should not be available for several months and hence the strategy will be to use the current model given the end of year timescales in submitting the planning application. b. RH confirmed that NDI have advised incorrectly and apologised on their behalf. LCountyC had a meeting with NDI last week and the revised model is expected to be available on 27/09/22. c. IS asked whether this affects timescales for completing the Transport Assessment confirming it is critical that we work to the Governments timescales to ensure the Freeport tax benefits are received, hence whether it was necessary to use the revised model. PW confirmed it would. d. RH confirmed that the current PRTM model has been successfully used on other schemes and confirmed that it is more for the neighbouring authorities to confirm their position on the current model because of possible cross boundary validation – the revised model in effect would have an extended coverage within Nottinghamshire and Derbyshire. e. SF confirmed that NH has no preference and would be led by the lead highway authority. f. GN asked what the update to the PRTM involves. g. RH confirmed that the update involves extending the model to cover in detail the areas to the north and northwest of East Midlands Gateway and the Freeport areas. h. SF asked whether the current model covers M1J26 and the A38 in the vicinity of Derby . RH confirmed that it does. i. GB confirmed that DCountyC's preference would be to use the	

	Gateway model then at present, as this provides better coverage overall in the area. j. IS reiterated that the priority is to choose a model that can be used today to meet the objectives and timescales of the Freeport and that we can't be delayed further on this matter. k. PW suggested that the current PRTM model is used and a sensitivity test undertaken at junctions on the Strategic Road Network if needed. l. RH said that we should be mindful that Local Model Validation Reports have not yet been produced and hence the model runs, in whatever guise, can't be instructed until this has been agreed, hence there is a way to go before this point regardless. m. PW confirmed that NDI have proposed a 10-week timescale from start to finish but appreciate that the LMVR need checking and agreeing in between. BWB understand that the Isley Woodhouse scheme has undertaken sensitivity testing and completed further work from a PRTM perspective, which should only help with validating the model in the vicinity of the site. n. GN confirmed that once the LMVR has been received we will know what additional data is required, which should help with reducing exposure and risk. o. PW shared a copy of the PRTM proforma and provided an overview of the details. PW confirmed that NDI could be commissioned to complete the LMVR as quickly as possible based on the current version of PRTM. p. HH said that an option could be to commission the LMVR and identify issues with the model and following that obtain additional data to address concerns (i.e. where additional traffic survey data is needed), although suggested this could take longer than waiting for the extended model to be completed. q. PW suggested whether it would be fair to keep things moving forward with the current PRTM and continue discussions about the current model vs extension. If significant concerns remain, then we can take a view at the appropriate time. However, if authorities are adamant about using the extended model, then because of the potential 6-week timescale, should we consider using the Gateway model? r. RH said that we need to be careful about referencing work undertaken for Ratcliffe on Soar and assuming that work has been agreed with authorities when this may not be the case. Information should be available on the planning portal highlighting LCountyC's concerns with the Gateway model not validating well in Leicestershire. s. SW said that as LCityC is on the periphery, they would want to understand the development impacts on the Leicester ring road and	

	M1 J21 in particular (M1/M69) but would defer to the view of the lead highway authority (LCountyC) on model choice but agreed with RH comments above. t. GN set out what NH's requirements would be for the scenario testing. This involves assessing 100% development at the opening year as well as 10 years after that/end of the Local Plan period. Mitigation would need to be built into the 2027 opening year tests also. u. GN asked whether the sensitivity testing scenarios should include the Willington and Toyota sites. v. PW confirmed that the modelling can look to include relevant developments requested within the sensitivity test, subject to discussions about the ability to do so with NDI. This can be discussed further at the inception meeting, which would be attended by the authorities, where we can discuss all sites including the two above plus possibly HS2. w. GN confirmed that in terms of testing the impacts of the development on the Strategic Road Network, M1J24 would require microsimulation modelling. As PRTM is not validated at turning movement level, new turning counts may be needed to validate the outputs. x. PW confirmed that BWB would obtain counts but will need to wait until September when the neutral period starts. However, BWB can identify a list of junctions that will definitely be included in the study area to commission surveys and can then include others if/when required. However, the key at this stage is to submit the PRTM proforma, as this is holding up starting the modelling process. y. GN confirmed that they are happy with the proforma so long as the details above are included. PW confirmed that the PRTM proforma will be updated with the scenario requirements.	**BWB**
4	**Next Steps & Associated Timescales** a. PW talked about the work programme, which provides timescales for completing key tasks in the lead up to the end of year planning submission. b. PW went through each of the tasks in the programme and confirmed that a copy would be circulated to all attendees. In summary, the programme shows that to meet the end of year deadline, we need to ensure that work is progressed continually and there is little room for slippage. c. PW ended the meeting by summarising the discussions and outcome from the meeting, which in summary included: i. sending the PRTM proforma, updated to include for GN's comments, to NDI for their consideration, referring back to them regarding the	

	model update set out in point 3b above ii. discussing the modelling issue with the Client team to help inform decision making.	
5	**AOB** a. Nothing further was raised. PW thanked the authorities for their time.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8TH SEPTEMBER 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH)– Leicestershire County Council (LCountyC) Highway Development Management team
Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
Lisa Guest – Nottingham City Council
Alex Gray (AG), Laura Good (LG), Tom Baker (TBa) & Sonny Tolofari (ST) – LCountyC Network Data Intelligence
George Nock (GN) – Jacobs; NH transport consultant
Mark Dazeley (MD), Sophie Gage (SG) & Kit Tang (KT) – AECOM; PRTM Model
Imogen Smazanovich (IS) – Segro
Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Introductions** a. PW welcomed everyone to the meeting and mentioned that there are a number of new attendees and asked whether they could introduce themselves and their role in the project: i. AG (NDI) – manages access to the PRTM model via the Framework. ii. LG (NDI) – ETC Framework Officer for LCC. iii. TB (NDI) – Framework Manager working on behalf of AG. iv. MD (AECOM) – Framework Director for PRTM. v. SG (AECOM) – PRTM transport modelling lead. vi. KT (AECOM) – PRTM modeler. b. PW named all other attendees who had been at previous meeting on the project.	
2	**Recap of 11/08/22 Meeting Minutes** a. PW summarised the previous meeting minutes, the key point being that we have agreed to wait for the updated version of the PRTM due on 27/09/22 before commencing the modelling work. b. PW set out the main purpose of the meeting; which was to use it as a PRTM Inception Meeting to understand in further detail the parameters for the modelling work, together with the anticipated programme, to help BWB plan the timescales for the production of the Transport Assessment and hence planning submission date.	

	c. AG said that the 27/09/22 date is when PRTM will be calibrated, with sign off potentially extending into October. d. PW confirmed that we would come back to this as this could affect the planning application programme. e. PW went on to discuss the Ratcliffe on Soar planning application and that BWB have seen LCC's observations so understand previous concerns with validation of the modelling work undertaken for said application, amongst other key items raised. f. PW confirmed that BWB will be obtaining turning count data at local junctions in the short term and have had initial discussions with LCC about what data is readily available (this is set out in further detail below). g. PW asked whether all attendees are happy with the previous meeting minutes. All attendees confirmed this was acceptable and RH confirmed that LCC would provide confirmation on the Scoping Note once the PRTM proforma has been updated with NH previous comments (since received).	**BWB**
3	**PRTM Proforma** a. PW provided a brief overview of the latest PRTM Proforma. In summary: i. Breakdown of development is as agreed. ii. Access arrangements as per latest masterplan. iii. A453 likely to need dualling between the westernmost access and the Finger Farm roundabout. iv. Trip rates and traffic generation are all as per agreed scoping note. v. 300k sqm of development overall, with 80%/20%, B8/B2 split. vi. Assessment scenarios have been updated to include 100% development in both 2027 and 2037 years as per GN's previous comments from 11/08/22. Scenarios to be tested include baseline, baseline + development and baseline + development + sensitivity test (Isley Woodhouse and Ratcliffe Freeport site). b. PW confirmed that HS2 is mentioned in the proforma but whether it is possible to include it in PRTM needs further thought. c. CT confirmed that from a NH perspective HS2 is not expected to be included because of the 2041 timescale and general uncertainty in its delivery. d. IS asked whether HS2 could therefore be struck off for this reason. e. TB confirmed that the Ratcliffe on Soar application looked into whether HS2 could be included but there was no information available	

	and hence it was disregarded.	
	f. RH mentioned that the planning portal for the Ratcliffe on Soar application includes observations and contact information from HS2 and hence recommended that contact is made to understand more about this.	**BWB/Segro**
	g. MD confirmed that HS2 was included in a previous version of PRTM but is not in the current version because of the uncertainties.	
	h. PW confirmed that contact will be made with HS2, however based on the above discussions and lack of information, it is likely that it will be removed from the sensitivity testing.	
	i. RH confirmed that the site access will need coding into the model and therefore a general arrangement drawing will be required to do this.	
	j. IS asked whether the access layout shown on the latest masterplan would suffice.	
	k. RH confirmed that it would need to be demonstrated that a deliverable access layout on the A453 is achievable.	
	l. PW mentioned that work has commenced behind the scenes about the form of access that could be required, although this is based on turning movements at the Finger Farm roundabout contained within the Ratcliffe on Soar Transport Assessment and hence the final junction form/size will be subject to once accurate traffic data has been obtained.	
	m. AG suggested that BWB prepare a number of design options with different size junctions so that the coding of the access can be updated swiftly should capacity problems be identified.	
	n. PW confirmed that BWB would prepare initial access designs based on the existing layout of the A453. RH confirmed that this was acceptable and any need to dual the A453 would be identified off the back of the modelling and would form part of the mitigation.	**BWB**
	o. MC set out the junctions that as an absolute minimum would form the study area: i. A453/Hunter Road roundabout ii. A453/EMA signal-controlled junction iii. A453/Walton Hill Signal-Controlled junction iv. A453/Finger Farm roundabout v. M1J23 vi. M1J24	
	p. MC confirmed in recent discussions with LCC it is understood that survey data is available at Junctions ii and iii above, however this could date back to 2017. RH subsequently confirmed that LCC would	

	only accept data within the last 3 years so long as it was collected at a time LCC were issuing permits, and relevant covid uplift factors are applied.	
	q. MC confirmed that BWB would bear this in mind and if needed commission new surveys at all the above junctions, which will be completed within the next month. RH confirmed that this was acceptable unless NDI raise any concerns when the permits are requested, such as planned roadworks etc.	**BWB**
	r. GN also confirmed that NH may hold data for the junctions on the M1 and hence would be happy to knowledge share. BWB would therefore explore this, to inform what traffic surveys are required.	**BWB**
	s. PW asked what are the key modelling steps that we should be aware of.	
	t. MD confirmed that the programme is for PRTM to be updated by 27/09/22, with reporting to follow several weeks later. However, work can be completed in parallel to this, to ensure that the timescales in completing the model runs does not slip significantly.	
	u. MD provided an overview of the PRTM update. In summary, the old PRTM had a 2014 base, and the current version has a 2019 base. The updated version being worked on specifically relates to the East Midlands Freeport sites and is known as the East Midlands Freeport Model (EMFM), which continues to adopt a 2019 base but with an extension to reflect the Freeport developments/changes, most of which is within Northwest Leicestershire.	
	v. KT displayed a PowerPoint presentation showing information about the EMFM, confirming that a copy would be circulated around all attendees (since provided and issued alongside these minutes).	**AECOM**
	w. GB asked whether the model update is taking into account the planned A38 grade separation junction improvements.	
	x. CT confirmed that DCO applications have been submitted for the schemes but not sure about timescales for their delivery. It was discussed that these should therefore already be included for in PRTM.	
	y. MD confirmed that the benefits of the EMFM are that when the base year is updated from 2019 in the current model, then this will automatically feed into the EMFM too. Currently this is being updated to 2023.	
	z. MD reiterated the point that once the model is finished on 27/09/22, it will need validating and agreeing. However, AECOM will be able to start coding in the site accesses in parallel with this to avoid any major delays.	
	aa. PW confirmed that BWB would prioritse looking at junction designs and	**BWB**

	consider an initial footprint based on the existing layout of the A453. The need for dualling the A453 will then come about following the initial model runs and form part of the mitigation strategy. ab. GN confirmed that he would like to see the pre-modelling outputs specified on Page 10 of the Proforma before any further modelling work is undertaken, which would avoid abortive work being completed further down the line. PW confirmed this would be provided (it is understood GN and TBa have since discussed this). ac. TB confirmed that he would assist with validating any results from the pre-modelling within Nottinghamshire. ad. SG mentioned that at some point AECOM will need to agree the assessment years. ae. PW confirmed that the assessment years in the current proforma (2027 and 2037) have been agreed with the authorities. However, we may wish to include a 2022 year also for the purposes of calibrating/validating the data against turning count information and hence will revert back with any final changes to the proforma.	**PW**
4	**AOB** a. SM asked who the best person is within Leicestershire to talk to about sustainable travel improvements. b. RH confirmed that all initial contact should be made with HDM, who will then pass on queries to the relevant person/team. SM confirmed that she will contact RH about this and continue the strategy for improving sustainable travel. c. PW asked whether there was any further business and following this thanked everyone for their time before concluding the meeting.	**SM**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 13TH OCTOBER 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:

Rebecca Henson (RH) & Harry Horsley (HH)– Leicestershire County Council (LCountyC) Highway Development Management team
Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
Lisa Guest – Nottingham City Council
Alex Gray (AG), Tom Baker (TBa) & Sonny Tolofari (ST) – LCountyC Network Data Intelligence
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Mark Dazeley (MD) & Kit Tang (KT) – AECOM; PRTM Model
Imogen Smazanovich (IS) – Segro
Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Introductions** a. PW welcomed everyone to the meeting; Alain Chandler-Hurst introduced himself, given this his first time attending the EMGP2 Transport Working Group meetings. b. ACH confirmed that he works at Jacobs (NH transport consultant) and would be supporting George Nock in terms of advising NH on transport related matters.	
2	**Review of last months meeting minutes** a. PW thanked RH for her comments on the previous meeting minutes and asked if anyone had any further comments to add. No-one raised any further comments and therefore the Revision 2 meeting minutes are considered agreed and will be circulated. b. PW went through the previous actions and asked GN if Jacobs had managed to liaise with NH to see whether traffic survey data is readily available at Junctions on the M1. GN confirmed that they are in the process of reviewing this and will revert back as soon as possible. c. PW mentioned that HS2 had been considered since the last meeting and was covered in the last update but because of the reasons previously set out will be disregarded from the modelling. d. PW mentioned that initial access designs of a possible roundabout and signal-controlled junction options had been circulated to all attendees on 05/10/22.	**Jacobs**

	e. SM confirmed that ITP have arranged a meeting with LCC for 25/10/22 to discuss sustainable travel opportunities.	
3	**EMFM update from LCC ETC Team and AECOM** a. PW asked for AECOM to provide an overview of the EMFM and summarise the key findings of the model update and any initial gauge as to how well it is validating. b. KT shared a presentation of the EMFM updates. In summary: i. The total number of zones across the model has increased from 412 to 620. ii. EMFM has a 2019 base year. iii. The validation against screenline count data shows that the model is validating well in the PM peak, with a few failings in the AM peak, which are to be rectified. iv. The screenline count data in the local area across Leicestershire has high confidence levels except for at one location so the overall performance is good. v. The link flows are all validating well except for the M1 link between J23A and J24 in northbound direction. vi. Journey times for all links across Leicestershire are passing except for A453 between M1 J23A and A52. vii. AECOM will therefore rectify any issues before sending the validation logs to the authorities. c. GB asked whether anyone has ever undertaken a validation comparison between the EMG model vs PRTM (EMFM). All attendees confirmed that this hasn't been done. d. ST mentioned that if anyone wanted to compare the models then this could be undertaken by checking the performances in the individual LMVR. e. PW confirmed that the EMG model has a 2016 base whereas the EMFM has a 2019 base and therefore should be more update to date. f. KT went through the proposed development details to be modelled; this includes 240,000sqm of B8 use and 60,000sqm of B2 use. KT mentioned that the Proforma currently has the mitigation model scenarios 'ticked'. PW confirmed that following HH's email of 07/10/22, the Proforma will be updated to 'untick' the with mitigation model runs. This will be considered in further detail post the first run. g. PW confirmed that the strategy for the modelling will be to first of all test the network with the initial roundabout access design, with single lane albeit flared entries in place to understand the base position to confirm whether this is sufficient or not. h. KT confirmed that AECOM have not included for any further mitigation	**AECOM**

	in their scope thus far.	
	i. PW confirmed that the Isley Woodhouse development would be included in the modelling as a sensitivity test but acknowledged that BWB aren't sure where ADC are at with agreeing their scoping and the PRTM Proforma but would catch up with them separately on this.	**BWB**
	j. KT went through the forecast assumptions on the EMFM presentation and confirmed that in terms of trip distribution there are two options: i. Use the Pegasus Park as a parent zone. ii. Use the PRTM in-built gravity model.	
	k. GN confirmed that Jacobs would expect both options to be tested and compared and possibly a balance of the two used in the final distribution. All attendees raised no concern against this approach and hence is considered accepted.	**BWB/AECOM**
	l. PW confirmed that the proposed development would be served by two roundabouts (existing A453/Hunter Road roundabout and a new roundabout further west), However the new roundabout would serve the majority of the proposed development. BWB would confirm the amount of traffic to be assigned through both roundabouts.	**BWB**
	m. KT ended the presentation and asked if anyone had any comments.	
	n. PW asked whether TBa has all the data such as the local planning data assumptions, network scheme uncertainty logs etc. which can be shared with the authorities. TBa confirmed that he would look into this (which has since been issued and circulated to the authorities).	**NDI**
	o. RH asked whether using the Pegasus Park as a parent zone would be appropriate or whether it would be better to use EMGP1 as a parent zone. KT said she would look into whether EMGP1 can be used as a parent zone but suggested that the zone EMGP1 is located in may contain other development and hence may not be appropriate but will check and confirm this.	**AECOM**
	p. PW asked the authorities about their timescales in reviewing the output validation logs once they had been shared by AECOM.	
	q. RH confirmed that LCC would aim to complete checks by 24/25th October 2022.	**LCC**
	r. GN confirmed that Jacobs would complete their checks as soon as possible.	**Jacobs**
	s. PW confirmed that BWB would re-send the Proforma (revision 5) without the mitigation run option ticked at this stage.	**BWB**
	t. HH mentioned that normally an Inception Meeting is held before the modelling is commissioned. PW confirmed that these meetings have	

	in effect the Inception Meeting given we are discussing and agreeing the details in the Proforma and general approach for the modelling. This was accepted by all attendees. u. HH mentioned that even though the model validation logs are due to be issued shortly, it doesn't meant the modelling can then commence straight away, as there may be issues that need rectifying beforehand. PW acknowledged and confirmed this is understandable. v. KT asked the authorities about any reporting requirements and confirmed that AECOM can share the slides of the EMFM presentation (which have since been issued). AECOM are also preparing a Base Year Model Review report which can be circulated to all attendees. All attendees confirmed this would be helpful and had no other comments.	
4	**Access design options** a. PW shared the roundabout and signal-controlled access designs to all attendees and provided a general overview to the design approach confirming that in effect they retain the existing layout of the A453 and include for flared entries with two lanes at the give way/stop lines. This would then confirm the base position. b. PW suggested that the modelling could test both access options but suggested that the roundabout is tested first. c. RH suggested that normally only one access option is tested and agreed that the roundabout option is tested first.	
5	**Proforma, including mitigation approach** a. PW re-iterated previous comments in that the Proforma will be updated to remove the 'with mitigation' model runs but keep the possible dualling scenarios should they be required on the back of the baseline model runs. All attendees agreed with this approach.	
6	**Next steps** a. PW summarised the next steps and tasks to be undertaken: i. TBa to release model plots to authorities for them to check validation (completed). ii. BWB to confirm amount of traffic to be assigned to the new roundabout and existing A453/Hunter Road roundabout. iii. KT to update fee proposal and issue to SEGRO. iv. BWB to catch up with ADC re Isley Woodhouse to understand where they are at and their timescales. v. BWB to undertake as much of the Transport Assessment work as possible prior to the modelling commencing. vi. Next meeting booked in for 10/11/22.	**NDI** **BWB** **AECOM** **BWB** **BWB**

	b. IS confirmed that SEGRO require a modelling programme from AECOM so they understand timescales to complete this in order to plan the public consultation, which is due to be held in January, with the application to be submitted in February. KT confirmed this would be provided.	**AECOM**
	c. PW asked how M1J24 should be modelled as during previous meetings there had been discussions about using a VISSIM Model. PW confirmed that BWB can undertake this in house but asked whether there is an existing model that we should use instead.	
	d. GN confirmed that Jacobs would liaise with NH to see whether an existing VISSIM model is available and whether any historic traffic survey data is available.	**Jacobs**
	e. PW thanked all attendees for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 10TH NOVEMBER 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH)– Leicestershire County Council (LCountyC) Highway Development Management team
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
George Nock (GN) – Jacobs; NH transport consultant
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
Lisa Guest – Nottingham City Council
Tom Baker (TBa), Alex Gray (AG) & Sonny Tolofari (ST) – LCountyC Network Data Intelligence
Mark Dazeley (MD) & Kit Tang (KT) – AECOM; PRTM Model
Imogen Smazanovich (IS) – Segro
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Highway Scheme Uncertainty Log and Planning Data Assumptions** a. PW reiterated that the uncertainty log and planning data assumptions had been shared with the Transport Working Group and a few queries raised which had been addressed within the re-issued version sent on 28/10/22. This included changes to the Freeport sites which have been excluded from the base model and are to be considered in a sensitivity test. b. GB asked about the inclusion of the A38 grade separation schemes and whether the updated model includes these. KT confirmed that AECOM have received drawings of the A38 grade separation schemes from NH (via BWB) and that they are waiting for details of the signal timings before coding these into the model. It was agreed that AECOM would liaise internally to obtain the signal timings and any other information needed to code the A38 grade separation schemes into the model. c. KT asked NH what the forecast years are for the schemes and whether they are to be delivered at the same time. CT said that the forecast year may be 2026 (subsequently confirmed that it is actually Spring 2024) and that all three schemes would be delivered together. d. PW went through the other changes to the uncertainty logs, in summary providing clarification on the Western Park Golf Course scheme (LCityC) and confirmed that the Lutterworth East Association scheme had been included (LCountyC). e. TBo raised a query regarding the Rushcliffe planning assumption data which shows slight discrepancies with the data sent through	**AECOM** **TBo/TBa/ AECOM**

	recently by the Planning Manager for Rushcliffe. AECOM confirmed they would liaise with TBo/Rushcliffe and agree what land uses are included in the base model, although there should be no significant changes to the current uncertainty logs. f. RH asked for copies of the uncertainty logs to be circulated once finalised. PW confirmed that BWB would do this, post receipt from AECOM. g. AA discussed the Western Park Golf Couse site and that LCityC's previous comments were in relation to the Ratby Lane/Kirkby Lane roundabout improvements, which is actually within LCountyC's area.	**AECOM/ BWB**
2	**Validation and Base Year Review Update** a. KT confirmed that Base Year Model Review report has been completed and is being reviewed before being circulated. This report will set out the performance of the cordoned model. In addition, journey time route graphs will be included. b. PW thanked Kit and reiterated how AECOMs presentation of 08/09/22 showed that the EMFM model validates well and asked whether this is the same for the cordoned model. KT confirmed that the cordoned model also validates well. c. PW asked about timescales for obtaining the Base Year Model Review Report and agreeing it before the future year model runs are undertaken. In addition, PW suggested a meeting with the Transport Working Group next week could be beneficial so that AECOM can provide a guided tour of the model results so that any issues can be discussed and resolved in the round. d. AG confirmed that the Base Year Model Review would be ready for issue before the end of the week (11/11/22). e. RH agreed that a meeting would be beneficial to go through the details together. PW tried to arrange a meeting for next week, however this wasn't possible availability wise across the Transport Working Group. f. GN suggested, instead, for the Base Year Model Review report to be circulated to the Transport Working Group for review and comments, as from the Strategic Road Network (SRN) perspective the presentation from AECOM highlighted where details need reviewing. Following that, a meeting can be held if required to discuss any specific points of detail before base mode and associated validation l is signed off.	**AECOM**
3	**Information (quantum, land use and trajectory) for Sensitivity Test Sites** a. PW confirmed that in previous Transport Working Group meetings, it was agreed for all Freeport sites to be considered in a sensitivity test	

	but asked LCC NDI how we can deal with each of the Freeport sites from a confidentiality point of view, as we need to agree how we treat each of these sites with the authorities before the modelling commences. b. TBo mentioned that in terms of Ratcliffe on Soar, information about the land uses and traffic forecasts is publicly available and therefore the assumptions can be taken directly from the Transport Assessment. c. GB confirmed that DCountyC have commissioned Systra to update the Gateway model for the Local Plan allocation purposes. What DCountyC have noticed is that the Ratcliffe-on-Soar scheme is emerging as are the East Midlands Airport schemes, however the Willington (Toyota) scheme has less clarity and DCountyC are yet to be approached on this. d. PW asked whether the Toyota Freeport site should be included in the sensitivity test given the above. GB confirmed from a DCountyC point of view, the Toyota Freeport site does not need including for. e. IS mentioned about timescales for the Toyota site, given no consultation has been received to date by any of the authorities. As the Toyota site is part of the Freeport initiative, there are timescales associated with that set by Central Government and hence may not be being followed. *f.* GB confirmed that both Erewash and Amber Valley Borough Council have commissioned Systra to use the Gateway model for the transportation evidence base for their respective local plans. in regard of the Freeport sites the text in the respective modelling reports read that "*The Midlands Freeport proposals include three schemes:* • *Ratcliffe Power Station.* • *The East Midlands Intermodal Park (EMIP) located adjacent to the A50/A38 Toyota junction; and* • *East Midlands Airport Logistics Park expansion.* *Of these schemes Ratcliffe Power Station and the Airport site are included in the Reference Case. Details on their land use and floor space have been obtained from the relevant local authorities and applied to the Reference Case. Where known, infrastructure proposals associated with these sites were included based on information obtained from the Freeport working group.* *EMIP currently does not have firm committed status and sufficient detail to include, Therefore, EMIP has been excluded from the Reference Case".* g. PW asked whether EMIP site should be included in the sensitivity test given the above. GB confirmed from a DCountyC point of view,	

	concur with Systra's approach in that the EMIP site does not need including in the Reference Case. h. IS mentioned about timescales for the EMIP site, given no consultation has been received to date by any of the authorities. As the EMIP site is part of the Freeport initiative, there are timescales associated with that set by Central Government and hence may not be being followed. i. RH suggested however that with regards to Toyota (EMIP), because it is included in the Government Freeport initiative, it should be included in the sensitivity modelling, as whilst no consultation has been received, not all developers engage in pre-application with authorities, so it could still come forward. In terms of Isley Woodhouse, detail is available for this scheme on North West Leicestershire DC's website which can be used to code into the model. j. PW thanked RH for the above and confirmed that BWB would search for these details and revert back if there are any issues. k. PW summarised the discussions on the sensitivity testing confirming that the position on Ratcliffe-on-Soar and Isley Woodhouse is now clearer, however the Toyota site needs exploring further to understand what is being proposed for the purposes of coding it into the model. l. GN confirmed that Jacobs and NH would give further thought to the Toyota site, seeing as it could impact National Highways SRN more than other authorities, and how this can be treated and come back with their thoughts.	**BWB** **Jacobs**
4	**Distribution Pattern Approach** a. PW confirmed that AECOM are currently working on the Base Model and once finalised will consider the proposed distribution pattern next, taking into consideration three methods (using EMGP1 and Pegasus Park as parent zones and using the in-built gravity model). BWB would then review the outputs and provide a recommendation to the Transport Working Group as to which methodology is most appropriate. b. In the meantime, BWB have undertaken a manual distribution using Census 2011 data which was shared on-screen with the Transport Working Group, to provide an initial indication and insight into how the traffic might distribute. This showed the following percentage distribution; circa 30% M1 northbound, 5% on the A453 towards Nottingham City, 17% M1 southbound, 10% on the M42 towards Birmingham, 14% on the A453 to the west of the site and 18% on the A50 towards Derby City. c. GN asked about the above distribution and whether it was a proxy	**AECOM/ BWB**

	model to give initial thoughts rather than a model to be adopted. PW confirmed that this is correct, and the purpose is to simply provide an initial indication, hence there is no need for authorities to check said data. These percentages can however be compared against those from the EMFM methodology at the appropriate time to help inform the recommended approach.	
5	**Traffic Surveys** a. PW confirmed that traffic surveys for the six off-site junctions detailed in the PRTM Proforma have been commissioned with permits approved with LCountyC and asked whether NH had concluded whether they hold any historic traffic data. b. GN confirmed that there is not as much data available as initially first thought but the strategy being taken with getting new data is acceptable. c. PW confirmed that in terms of M1J24, BWB hold the VISSIM model that was used as part of EMGP1, which is coded exactly how it the junction is laid out on the ground. The VISSIM model is quite considerable and includes the network between M1J23 up to A50J1 because there was a significant amount of highway works implemented as part of EMGP1, which should not be the case for EMGP2. Therefore, BWB's recommendation is to cordon the VISSIM model to M1J24 only and use that along with the forecast flows from SATURN (with furnessing against observed counts) and import the data into the VISSIM model to test the development impacts. d. GN confirmed that the base would be different and asked for a succinct summary setting out the status of the model, what we propose to do and the methodology for the modelling which can be agreed with NH. PW confirmed that BWB would produce a short note setting this out.	**BWB**
6	**Timescales** a. PW summarised AECOMs programme and confirming that they proposed 10-12 weeks to complete the process with work starting at the end of October. b. IS confirmed that SEGRO are looking to book the public consultation event for the New Year so need to have confidence that sufficient information will be available to consult locals and other stakeholders. c. KT confirmed that whilst AECOM understand the timescales pressures the Base Model will need agreeing with the authorities so they are comfortable with it before running the next stages of modelling. KT confirmed that AECOM could prioritise supplying certain parts of the output data if this would help move the project forward to meet the public consultation timescales.	

	d. IS suggested that if SEGRO decide to plan the public consultation for February would this give AECOM comfort that the results will be available. SEGRO need to balance booking the consultation in line with the Government's Freeport timescales against having enough information to properly consult. e. PW mentioned that for the public consultation we may not necessarily need all the details but instead a sufficient level of detail showing what the impacts of the development would be, with potential mitigation options to inform consulting the public as to their thoughts. f. RH suggested that as part of the public consultation we should want to be in a position to have an understanding as to where the impacts are and how they are going to be mitigated. Therefore, we may not be in a position before February where we have schemes of mitigation designed that have been ran in the model. g. PW acknowledged the above and agreed that we wouldn't understand the final position with the approach suggested above, however should be in a position where we have enough information to know where we're heading, to inform local residents of what is likely required to mitigate the development impacts. If the results of the with development runs are received before Christmas, then in January BWB can start considering mitigation requirements ahead of the public consultation; whilst they may not be agreed by the authorities it would at least provide an idea as to what could be required. As part of the final mitigation schemes, the designs can take into consideration comments from the public consultation. h. HH acknowledged the above but highlighted a risk that in February we would not have local authority support, which may not be ideal going into a public consultation. i. PW thanked RH and HH for their thoughts which would be taken into account but confirmed that there is a clear path of what needs doing in the short term so can look into this once the Base Year Model Review report is received against the programme AECOM set out.	**BWB/ AECOM**
7	**Masterplan/Public Consultation** a. SM ran through the sustainable transport initiatives confirming that an initial meeting had been held with LCountyC and the wider team to talk through EMGP1, such as how this site operates and what can be brought across to EMGP2. A second meeting has been scheduled for later this month, alongside Uniper. b. SM shared a plan showing the existing bus services and where the route in the local area and confirmed that the initial thoughts are to provide a bus interchange close to Pegasus Business Park within	

	eastern part of the site. Staff would be transferred to the main part of the site via a free electric shuttle bus which would drop off employees close to each unit. SM confirmed that Uniper are adopting a similar model.	
	c. SM presented a graph showing how bus patronage has increased at EMGP1 year on year. Therefore, ITP are confident that by adopting a similar model, similar results can be achieved in terms of modal shift to car sharing/public transport usage at EMGP2.	
	d. SM also presented a figure of the masterplan showing the location of the bus interchange and the route the shuttle buses would take within the main part of the site. In addition, it was confirmed that the existing bridleway would be retained for people to walk/cycle to the site as an alternative approach. Free cycle hire would be available to encourage this.	
	e. IS mentioned that retaining Hyam's Lane has wider benefits to local people living in Diseworth who would have continued access to the service station.	
	f. RH said that LCountyC has two concerns with the masterplan. Firstly, the PRTM Proforma does not specify a second point of access, which therefore needs updating. Secondly, LCountyC are of the opinion that the bus interchange is remote from the site and should be integrated within the main part of the site. The connection from Hyam's Lane may not be attractive for people working on shift patterns travelling during nighttime hours. PW confirmed the Proforma would be updated accordingly.	**BWB**
	g. SM confirmed that in terms of the bus interchange location, the operators would not be willing to travel into the development to serve each unit because of impacts on journey times. If additional vehicles are added to the route, then this may not work financially. Therefore, the strategy is to continue to get more people using the service without impacting existing users. The services currently operate at high frequencies and the shuttle bus would complete the 'last mile' part of the journey to each unit.	
	h. GN thanked SM and agreed that a detailed strategy is being worked up that looks positive. However, GN suggested that it would be critical to get authority support on the public transport strategy to make best use of this as achieving modal shift away from private car use to public transport is a much better way of reducing impacts on the SRN, rather than proposing major highway works such as more lanes etc.	
	i. PW asked if SM could circulate the public transport presentation to the Transport Working Group.	**ITP**

8	**AOB** a. PW summarised the meeting confirming that BWB would prepare meeting minutes and circulate them along with ITP's public transport presentation. In the meantime, AECOM will finish the Base Year Model Review this week so that it can be circulated and agreed with the authorities. PW asked if there was any other business. b. CT confirmed that the timing of the A38 grade separation schemes is Spring 2024 but likely to be a delayed because the DCO has not been approved (as set out in 1c above).	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8TH DECEMBER 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC) Highway Development Management team
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
George Nock (GN) – Jacobs; NH transport consultant
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
Tom Baker (TBa), Alex Gray (AG) & Sonny Tolofari (ST) – LCountyC Network Data Intelligence
Kit Tang (KT) – AECOM; PRTM Model
Imogen Smazanovich (IS) & Martin Eckersall (MK) – Segro
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Tom Boylan (TBo) – NCountyC
Lisa Guest – Nottingham City Council
Simon White - LCityC
Mark Dazeley – AECOM; PRTM Model

MINUTES:

Agenda item		Action
1	**Review of Previous Actions** a. PW started the meeting by reviewing the previous actions, confirming that the A38 grade separation junction improvements have been circulated to AECOM for coding into the EMFM. b. KT confirmed AECOM have received the improvement schemes and asked NH whether the signal-controlled Toucan crossings require including in the model or whether demand is expected to be low and hence they may not be required. c. CT confirmed that she would need to defer to other colleagues before confirming this. d. PW suggested that it is unlikely that the Toucan crossing would affect vehicle capacity significantly because they will most likely operate alongside traffic phases rather than under an all red stage. e. KT agreed with the above confirming that either way it is unlikely that the crossings will have a major impact on the modelling, although would defer to NH on this. f. PW went through the remaining actions from the 10/11/22 meeting minutes summarising the work that had been completed since this time. This includes:	**CT**

	1. Base year model review issued to the Transport Working Group. 2. BWB issued information on the interpretation of the sensitivity testing sites (Ratcliffe on Soar and Isley Woodhouse). PW confirmed that GN and CT had also referred back on the EMIP site. 3. In terms of development distribution there are other stages that need bottoming out before we move onto this, but this is being undertaken using three methodologies. 4. The methodology for the VISSIM modelling will be covered in this meeting. 5. EMFM Proforma was updated and reissued. 6. Further discussion has been held on public transport which are covered in this meeting. g. PW confirmed that BWB would update the previous meeting minutes from 10/11/22 to include GB's comments. These have since been updated and circulated.	
2	**Planning and network uncertainty log information** a. PW confirmed that TBo had recently confirmed by email that the Rushcliffe planning data should now be finalised for inclusion within the uncertainty logs and includes the Toton link road scheme. PW asked KT if this is indeed the case. b. KT confirmed that AECOM are still in discussions with Phil Marshall at Rushcliffe Borough Council who sent through information for the 2022-2030 period but as the model base year is 2019, AECOM will need data for the 2019-2022 period. AECOM have received all housing planning data but are still finalising the employment planning data. Phil Marshall confirmed he would come back to KT this week, but KT would chase if nothing is received. c. KT confirmed she has spoken to TBo about the HS2 Innovation Hub and this information is now included in the uncertainty logs, which will be circulated to the Transport Working Group once complete with the final Rushcliffe planning data. d. KT confirmed that AECOM have received a drawing of the Toton link road scheme and have coded two signal junctions into the model. However, AECOM require further information on the phasing so that this can be included in the model. e. DS confirmed that he would speak to TBo about this and provide the signal data for the two junctions on the Toton link road. f. KT confirmed that AECOM are progressing with updating the uncertainty log information and once finalised will be able to issue the latest version (Rev 3) to the Transport Working Group. g. PW thanked AECOM and NCountyC in particular for trying to move	**KT** **NCountyC**

	this forward but raised concern with timescales and that agreeing the planning data is taking longer than expected, which is causing us to deviate from the programme and hence holding back the rest of the modelling. PW asked whether Phil Marshall is aware of the timescale pressures on the project. h. KT confirmed that Phill Marshall is responding swiftly to emails but will follow up with him if nothing is received this week. i. CT asked KT what assumptions have been made for the Toton link road scheme as the new junctions are on the A52 which are under the remit of NH. j. KT confirmed that TBo had issued drawings showing two signal junctions and shared the drawing to all attendees on screen. k. CT confirmed that she was aware of the drawing but highlighted that the junction layouts are not agreed and hence asked whether two scenarios could be tested that look at with and without the Toton link road scheme. l. KT confirmed that this would involve an additional scenario and additional work above that currently being undertaken. m. PW suggested whether this would be necessary given the distance the scheme is from the site and whether the principles of the two junctions have been agreed that can be moved forward with for the purposes of modelling. n. CT confirmed that the current position is that NH are not content with signal junctions because they impact the A52 and would prefer roundabouts but would liaise with colleagues on the type of junction that will most likely come forward and refer back to KT with how the modelling should be undertaken. o. PW asked what KT's 'gut feel' is with regard to the difference between signals and roundabouts on the junction modelling/performance. p. KT suggested that the either the signals or roundabout options should not have a significant impacts/change on the wider strategic modelling. q. AA asked what the housing and employment planning data is based on in Leicester. RH confirmed that it is based on the Leicestershire's latest dataset included in the model and should also include all of the sites within LCityC. AA confirmed this was acceptable and thanked RH.	**KT** **CT**
3	**Base model validation** a. PW confirmed that to date, BWB have received confirmation from	

	NH, LCountyC and LCityC that the base model is acceptable and asked whether DS and GB are happy from a NCountyC and DCountyC respectively. b. DS confirmed that he has seen the recent emails being circulated from other authorities and that NCountyC are satisfied that the model is suitable if others are happy. c. GB confirmed that DCountyC would take the lead of NH who have confirmed they are content with the base model. d. PW concluded that all authorities are now in agreement that the base model is accepted and hence no further work is required on this.	
4	**Next steps/programme – EMFM modelling** a. PW summarised the next set of actions that need completing to allow AECOM to undertake the next stage of modelling which is the 'without development' runs. 1. Rushcliffe planning data needs finalising and agreeing. 2. NH to confirm the approach to coding the Toton link road scheme. b. KT confirmed that the above is required but before modelling can be undertaken AECOM will need to process the data, update the uncertainty logs and issue the final data to the Transport Working Group. c. PW asked KT what her thoughts are timescales wise in completing the without development model runs and providing the outputs of the results for BWB to start furnessing the traffic flows. d. KT confirmed that if the planning data can be agreed early next week (w/c 12 December 2022) then it should take another week to complete the without development runs. The aim is to complete the without development runs and provide development distribution plots before the Christmas break. e. PW confirmed the above information would be useful to receive before Christmas to allow BWB to start progressing the traffic flow furnessing/individual junction modelling, albeit focusing on the distribution information in the first instance. In terms of the wider programme the public consultation is being held at the end of February/March 2023 with the planning submission date set for April 2023.	**NCountyC** **NH** **KT**
5	**Sensitivity modelling** a. PW set out the assumptions that have been made on the Ratcliffe on Soar (Uniper) and Isley Woodhouse sites, as set out in his email of	

	23/11/22. PW also confirmed that CT and GN have provided information on the EMIP site. In summary this includes: 1. Ratcliffe on Soar information has been extracted from the associated Transport Assessment and hence should be accurate. 2. Isley Woodhouse assumptions are less clear but information has been found on headline development details which AECOM are able to use for modelling purposes. b. IS confirmed that SEGRO have met with NWLDC who can provide high level input on the assumptions for the Isley Woodhouse scheme. c. RH agreed that the info from NWLDC is needed to ensure accuracy. IS confirmed that she would continue liaising with them and refer back. d. DS mentioned that concerns have been raised with the Ratcliffe on Soar site because the development is intended on being delivered in phases. In summary, Phases 1 and 2 would have little impact on the network but Phase 3 would have a larger impact. Hence, NCountyC are uncomfortable providing a condition for mitigation to be provided as it may not be deliverable. DS did however confirm that the proposed development floor areas would not change e. PW confirmed that BWB would be testing the Ratcliffe on Soar site in its entirety and hence the development phasing would not have any impacts on the modelling, which would assess worst-case. DS therefore confirmed that the information BWB have shared on 23/11/22 would assess the worst-case impacts and confirmed that was agreed. f. PW shared an email from CT regarding the EMIP site confirming that the general consensus across the authorities is that this site does need considering in the sensitivity testing (notwithstanding that DCountyC are of the opinion it does not). g. PW asked KT if she is aware of the planning data assumptions for EMIP that had been made from colleagues at AECOM within the associated transport modelling. h. KT confirmed that she is aware of the planning data assumptions available for the EMIP site although acknowledged the information is only high level. i. PW confirmed that this is the only data currently available and DCountyC and NH have nothing more detailed to provide at this stage. Therefore, advised KT to proceed using this. j. PW confirmed that the sensitivity testing would include two model runs, one that includes the proposed development and another	**IS**

	that excludes the proposed development so that the difference/impacts can be considered.	
6	**VISSIM modelling** a. PW referred back to previous discussions confirming that GN advised for a VISSIM model to be used to assess the impacts at M1 Junction 24. b. PW confirmed that BWB already hold the VISSIM model at M1J24 from work undertaken for EMGP1, which extends from A50 J1 to the north to M1 J23A to the south, but the intention is to cordon the model to include M1 J24, EMGP1 signal gyratory, Finger Farm roundabout, M1J23A and the site access roundabouts on the A453. The model is several years old and hence work will be required to update the model to a suitable base year and go through the validation process, however this will be undertaken in parallel with building individual Linsig and Junctions 10 models for comparison and to give us an earlier indication of performance levels. c. GN acknowledged the commitment to running with the VISSIM model and agreed with the approach. GN asked for BWB to send through details of the current model and methodology for updating/validating it so that this can be agreed upfront. PW issued the VISSIM modelling methodology to GN on 09/12/22.	**BWB/GN**
7	**Public Transport** a. PW mentioned that a meeting had been held with ITP, LCountyC and Trent Barton and LCountyC were intending on following that up with a further meeting to discuss public transport improvements. b. RH confirmed that LCountyC have spoken to Trent Barton and have a meeting arranged for 12/12/22. However, LCountyC still have concerns with the location of the bus interchange. c. SM asked whether LCountyC would provide an update on the outcome of the discussions with Trent Barton next week. RH confirmed that she would send an update to the Transport Working Group following the meeting. d. IS confirmed that a separate meeting had recently been held with NWLDC planners who didn't raise any concerns with the location of the bus terminal and understand it's on the location of all the main bus routes in the local area. RH confirmed that to date no discussion has taken place between LCountyC and NWLDC. e. PW asked whether IS should co-ordinate a meeting with NWLDC and LCountyC after their meeting with Trent Barton on 12/12/22. RH mentioned that the reason no discussions have taken place so far is because the pre-app came through to LCountyC directly but if IS is happy for LCountyC to share the information with NWLDC then they	**RH** **RH**

	would be happy to discuss public transport with them. IS confirmed she is happy with this and therefore RH will have a discussion with both Trent Barton and NWLDC and revert back to the Transport Working Group.	
	f. AA asked whether there is intention to liaise with other bus operators to the south of the site to connect people to the site from Leicester City.	
	g. SM asked AA whether there are any operators in mind as Trent Barton are the main operators in the area. Midlands Classic do travel out to Burton upon Trent but not directly to the site. AA confirmed she would come back to SM on this.	**AA**
8	**Next steps/programme - general**	
	a. PW summarised the next steps/actions to be completed:	
	1. NCountyC and AECOM to finalise the Rushcliffe planning data assumptions. 2. AECOM to provide the development distribution plots. 3. AECOM to complete the without development model runs and provide outputs for BWB to start furnessing the traffic flows. 4. AECOM to complete the with development and sensitivity model runs in the new year following further agreements on the planning assumptions.	**NCountyC /AECOM**
9	**AOB**	
	a. PW confirmed that scoping responses have been received from NWLDC who have listed a number of committed developments that need including for in the modelling and asked KT to check whether they are included in the planning data assumptions. This information has since been issued to KT.	**KT**
	b. PW confirmed that in terms of noise and air quality, BWB need to go back to the team on a programme. There are a couple of items for KT to consider and confirm what information can be provided and hence PW confirmed he would liaise with KT separately.	**PW**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 12TH JANUARY 2022 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC) Highway Development Management team
George Nock (GN) – Jacobs; NH transport consultant
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
Lisa Guest – Nottingham City Council
Kit Tang (KT) – AECOM; PRTM Model
Imogen Smazanovich (IS)– Segro
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
Tom Baker (TBa), Alex Gray (AG) & Sonny Tolofari (ST) – LCountyC Network Data Intelligence
Tom Boylan (TBo)– NCountyC
Simon White - LCityC
Mark Dazeley – AECOM; PRTM Model

MINUTES:

Agenda item		Action
1	**Review of Previous Actions** a. PW started the meeting by reviewing the actions from the previous meeting on the 8 December 2022: i. A38 grade separation schemes now included in base model. ii. Rushcliffe planning data now agreed and included in base model. iii. Toton link road to be included in the sensitivity test and not base model. iv. The base model is therefore now agreed and whilst it has taken a little longer than expected, it was crucial that all parties were comfortable with this as it underpins the rest of the modelling. v. BWB have prepared a Technical Note building on the email issued previously by PW setting out the VISSIM methodology. This note was issued to the TWG on 12 January 2023. b. PW asked AA whether there are any updates on public transport from LCityC. AA confirmed that there are no updates at this moment and happy with the progress made so far but will keep everyone informed. c. PW asked if anyone had any further comments on the meeting minutes from 8 December 2022. No further comments were received, hence the minutes are agreed.	

2	**Programme update** a. IS confirmed that the public consultation was planned in line with the modelling timescales. A virtual event is booked for 27 February 2023, with in person events booked at Radisson Blu Hotel (East Midlands Airport) for 14/15 March 2022. Hence the traffic modelling work needs accelerating in order to have meaningful conversations. b. IS confirmed that the next Freeport board meeting is taking place on 12 January 2022 and one of the biggest risks is the progress on traffic modelling. The planning application is due to be submitted during the first week of April 2023. This is a requirement in line with the timescales issued to Central Government and to meet the planning deadline of September 2023. The tax incentives available to businesses end in September 2026 and business rates relief need to have started to be claimed by businesses before 30 September 2026, hence timescales are crucial.	
3	**Planning and network uncertainty log** a. PW confirmed that the uncertainty log data should now be signed off from a base modelling perspective. The most recent version of the model is being used (EMFM) which has been updated and validated. Planning data has now been received from NWLDC and included. b. PW asked whether anyone has any further comments on the uncertainty log/planning data assumptions. No further comments were received and hence the base model assumptions are agreed. AECOM now have the ability to undertake the base model runs. c. PW confirmed that given the timescales set out by IS in 2b, BWB may need to take a professional judgment on certain aspects of the modelling to move things forward in line with these timescales. However BWB will share all information with the TWG and understand that this does result in an element of risk but will be moving with what professionally is considered most appropriate.	**KT**
4	**Modelling update** a. PW mentioned that development distribution patterns are now on the critical path and will be shared with the TWG on w/c 23 January 2023. The with development outputs will then be issued once the scenarios have been ran which will provide an understanding of the impacts/study area. b. KT confirmed that the base model has been ran over Christmas with the planning data and uncertainty log information included in Version 3, which includes the Rushcliffe and NWLDC data. This also included for the Toton link road scheme. c. KT confirmed that AECOM are now feeding the demand growth	**KT**

	into the model which is being completed this week with the model run being undertaken over the weekend. Development plot distribution and routing will be provided next week (middle of next week at the earliest). d. KT confirmed that the development distribution will be undertaken in three ways: i. Pegasus business park as a parent zone ii. EMGP1 as a parent zone iii. In-built gravity model in EMFM e. KT confirmed that once the distribution methodology has been reviewed and agreed, AECOM can start extracting the outputs. The plan for the next TWG is to provide a presentation on the forecast modelling. f. PW asked for clarification that the modelling outputs will be issued to BWB initially for review before being circulated to the TWG. This will allow BWB to review the information and provide thoughts and interpretation to the TWG to hopefully make things more straight forward for others to review. KT agreed with this. g. RH pointed out that in terms of distribution, LCountyC do not consider Pegasus Business Park to be representative and instead EMGP1 would be better. h. PW acknowledged RH comment on Pegasus Business Park as a parent zone and confirmed that BWB would review al three options but take into consideration LCountyC position on this. It is more likely that the other two options will be taken forward. i. PW asked the TWG their timescales for reviewing the development distribution plots. j. RH confirmed that from an LCountyC perspective it depends when the information lands and in what format because of other deadlines. PW confirmed that BWB would provide the data in the most efficient way possible to help with the authorities reviewing the details. k. RH thanked PW for this but highlighted that LCountyC would not recommend any assumptions/risks are taken on development distribution and suggested that the modelling is held off until this is agreed. l. PW acknowledged RH comment and that BWB will aim to get all key aspects agreed where possible but noting IS timescales. m. IS asked whether it would be worthwhile BWB providing some certainty on timescales for issuing the development distribution plots so that LCountyC can plan time in their diary to review.	**KT**

	n. PW said that if AECOM can provide the information by the end of next week (20 January 2023), then BWB would jump onto the outputs and present the details in the best way for the authorities to review. Should the data land by 20 January 2023, then BWB would aim to issue the information by 25 January 2023. o. GN asked whether it would be better for AECOM to simply circulate the base model and development distribution information to all attendees once the model has been ran. p. PW suggested that it would be better for AECOM to issue the information to BWB first off, for BWB to review and summarise with recommendations and an interpretation of the results based on our professional experience. This would save everyone from having to review all the raw data. q. GN agreed with the above and confirmed that the gravity model is something NH are familiar with. In terms of localised knowledge with EMGP1 and Pegasus Business Park this can be provided by LCountyC. GN confirmed that he looks forward to receiving the outputs. r. GB said that DCountyC are happy to defer to LCountyC and NH on the development distribution but would still welcome being kept in the loop when information is issued. s. PW thanked GB and asked whether LG from a NCityC perspective is happy for LCountyC and NH to take the lead. LG said that NCityC main concerns are on the A453 and through Clifton into Nottingham. However, the main concerns are on public transport and getting people from Nottingham City to the site. Apart from that NCityC are quite peripheral. t. PW asked AA whether this is also the case for LCityC. AA confirmed that she would want to look at the impacts on the ring road and radial routes from the SRN. PW acknowledged this and agreed it would be considered and confirmed that all information would be shared with everyone in any case. u. PW asked if anyone had any further comments on the modelling. No further comments were received.	**BWB**
5	**VISSIM modelling** a. PW confirmed that BWB have prepared a note on the VISSIM modeling methodology, which is ready to issue and will circulate a copy to everyone after the meeting. This note was issued on 12 January 2023. b. PW reminded the TWG of the VISSIM network, which involves cordoning the existing model to include M1J24, EMGP1 gyratory	

	M1J23a (including Finger Farm roundabout and M1/A42 slips), A453/Hunter Road roundabout and new site access roundabout on the A453. c. PW mentioned that BWB have received turning count survey results at 10 junctions from November 2022 (including those listed in 5b) which are being summarised for inclusion in the VISSIM model. d. MC provided an overview of the furnessing procedure to derive future forecast flows. Once BWB receive the modelling outputs from AECOM there will be a furnessing process that needs undertaking and there are four options being considered, which were summarised: i. Option 1 – take traffic flows directly from the EMFM. ii. Option 2 – work out the % difference between the base and future SATURN flows and apply the % growth to the 2022 observed counts. iii. Option 3 – Take the absolute increases in turning movements between the base and future SATURN flows and apply the growth to the 2022 observed counts. iv. Take absolute increase in link flows between the base and future SATURN flows and apply proportionately to the 2022 observed counts. e. RH suggested we agree the furnessing process before it is carried out and also that Option 1 will not be acceptable to Leicestershire. RH asked for the turning counts to be provided beforehand. f. RH suggested that BWB prepare a note setting out the furnessing process and including the raw observed turning count data, which can be signed off to help speed up the process. BWB agreed that it would be worthwhile doing this and will provide a note to all attendees g. GN asked whether BWB are intending on issuing a note setting out the VISSIM methodology. PW confirmed this and issued the note on 12 January 2023. h. PW acknowledged RH comments above regarding the furnessing options and whilst will take on board LCountyC preference for not going with Option 1, wanted to set out all options at this early stage. i. GN asked about the base model construction for VISSIM and whether this has started. PW confirmed this has been started, BWB are also building individual junction models too, some of which will inform the VISSIM model. j. GN asked whether the base VISSIM model would be signed off before any future year assessments are undertaken. This will give stability on forecasts before it is tested. PW confrmed that the base VISSIM model would be agreed before being progressed further.	**BWB**

	GN confirmed that he would await on the VISSIM note. k. PW confirmed that BWB will share all models, results, outputs etc but to meet the Freeport timescales may need to move on the front foot with certain tasks but acknowledge this is at BWBs risk. l. RH asked about timescales and whether the individual junction models could be shared with the authorities to get them signed off before the traffic flows are inputted. m. PW confirmed that BWB have models available and can share these with the authorities. MC confirmed that BWB have 10 junction models built for junction along the A453 up to M1J24.	**BWB**
6	**Public Transport** a. SM provided an update on public transport: i. RH recently attended a meeting with Trent Barton and provided actions which SM following up with by email. ii. SM mentioned that ITP are to liaise with Trent Barton on passenger numbers and whether there are any issues with capacity at present. iii. In terms of junction priority and shift timings, ITP will liaise with BWB to understand what is happening with access. iv. ITP are to share detailed drawings with Trent Barton once available. b. SM mentioned that RH had picked up that some permissive paths were missing off the plans. RH asked for ITP to share the plans they hold for LCountyC to add to if need be. c. SM asked whether there are any changes to the emergency access to Diseworth via Long Holden and whether this is outside the site boundary. IS confirmed Long Holden is outside the site boundary. d. IS mentioned that there are aspirations for people to have walking routes between Long Whatton and Diseworth and whether there is anyone at the council who SEGRO can liaise with about improvements. e. IS mentioned that Hyam's Lane is currently a muddy track that gets waterlogged in the winter and the intention is to do something to improve the conditions, such as resurfacing, low level lighting to make it a more useable path. There could be scope to bring the private shuttle bus along Hyam's Lane but this needs to be considered further. Hence there are a few things to explore. f. RH said that it is LCountyC's understanding that Long Holden provides emergency access to the M1 but aren't certain so recommended NH to check their records before we start agreeing any changes. GN confirmed that he would liaise with NH on this. g. IS confirmed that there is definitely a pedestrian gate that exists	**ITP/BWB** **ITP** **GN** **IS**

	rather than a vehicular gate but will investigate further.	
7	**Next steps** a. PW confirmed that the timescales would be included in the minutes as IS set out. This is included at 2b.	
8	**AOB** a. IS asked whether LCountyC have a net zero strategy and how it is being progressed and fits into the NWLDC proposal. SEGRO have received the climate chapter which RPS are working on and want to make sure they are on the right track to meet net zero from a LCountyC perspective. b. RH confirmed that there is a strategy available on the LCountyC website but the best contact is Luke Radden Jackson who can provide further information. At the moment, the net zero strategy is council wide but LCountyC are in the process of developing LTP4 but it is not completed yet. c. PW thanked all attendees for their time and ended the meeting.	**IS**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 9 FEBRUARY 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Simon White (SW) & Anthea Anderson (AA) – Leicester City Council (LCityC)
Geoff Blissett (GB) – Derbyshire County Council
George Nock (GN) – Jacobs; NH transport consultant
Sonny Tolofari (ST) – LCountyC Network Data Intelligence
Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Lisa Guest -Nottingham City Council
David Green (DG) – Delta Planning
Jon Parker (JP) – ITP
Imogen Smazanovich (IS) – Segro

MINUTES:

Agenda item		Action
1	**Review of previous actions** a. PW/MC went through the meeting minutes from 12 January 2023 discussing each of the previous actions. b. PW asked if anyone from the TWG has any comments on the previous meeting minutes. No comments were received from the TWG.	
2	**Recently consented Castle Donington industrial park St Mowden development** a. PW summarised an email received from AA on 30 January 2023 regarding a scheme at Castle Donington Industrial Park to the south of A50 J1 that was recently overturned at committee and now has outline planning permission. This therefore hasn't been included in the uncertainty log information and base model runs. b. PW confirmed that AECOM have already ran the base model and hence suggested that the Castle Donington scheme is included in the sensitivity test as there is a risk that schemes will continuously come forward once agreements have been made and hence a line need to be drawn somewhere. c. GN mentioned that whilst he acknowledges the unfortunate timing of this, it is a committed scheme and hence would normally be included in the reference case. GN asked whether BWB know the trip generation associated with the scheme. PW confirmed that he wasn't aware of the trip generation at this stage.	

	d. GN confirmed that he had reviewed the Transport Assessment and the Castle Donington development is expected to generate circa 230 two-way trips in each peak hour of which circa 100 trips would route towards the M1 J24a, which isn't insignificant. e. GN also highlighted that from the distribution plots submitted in relation to EMGP2, it is clear that there is re-distribution away from M1J24 and hence there are wider effects that need to be considered. f. PW understood GN's comments and confirmed that further discussion on distribution and the effects of congestion/re-distribution away from M1 J24 would take place later in the meeting. g. RH highlighted that the EMG application will be determined by NWLDC members who refused the Castle Donington development and a question that is likely to be asked at committee is whether the EMG assessment took into account this scheme. LCountyC would like to be in a position to say yes and hence advised that SEGRO weigh up the risks against updating the log and re-running the base model. h. PW suggested that if BWB/AECOM do go back and update the logs and include the Castle Donington scheme then could we agree to draw a line on this matter else there is a risk that this may continue happening. i. RH acknowledged that a line needs to be drawn somewhere but because of the location, impacts and sensitivity of the Castle Donington scheme, LCountyC feel that it should be considered. GN agreed with RH stating this scheme is highly relevant to the assessment and EMG application. j. PW confirmed that BWB would liaise with SEGRO on this matter and revert back. k. GN asked whether he could take an action away to quantify the impacts of the Castle Donington scheme and issue the details to BWB. PW confirmed this would be useful.	**PW** **GN**
3	**Traffic Flow Technical Note** a. PW confirmed that BWB issued the Traffic Flow Technical Note on the 19 January 2023. BWB are now in the throes of working through the note and are adopting the methodology set out within it to validate and furness the traffic flows, as it is considered to be a sound approach. b. PW asked if there are any comments on the Technical Note. c. GN confirmed that he would come back to BWB on the Technical Note but is prioritising other matters at the moment, such as the development distribution pattern, which PW agreed was a priority.	

	d. RH mentioned that it would be helpful for the TWG to have a project programme for when certain items are likely to be issued and timescales for when these need to be reviewed by. This should set out how everything is intended on being complete in line with the planning submission deadline. e. PW confirmed that BWB would prepare a project programme.	**BWB**
4	**VISSIM Model Technical Note** a. PW thanked GN for the meeting on 25 January 2023 which was followed by a revised Technical note issued on 27 January 2023. b. GN thanked PW for the revised Technical Note and confirmed that it is being reviewed internally on behalf of NH. However, GN is unclear on the journey time routes that are being proposed for validation. However, Jacobs are currently reviewing everything in detail and hence will confirm everything with the TWG and ask for further information if required. c. GN mentioned that in terms of the Area of Interest (AoI), this normally comes from the model but this is a piece of work that hasn't been received yet. Normally this is defined as a 5% increase or 30 additional trips. d. PW confirmed that there is still an exercise that needs to be undertaken to agree the study area for the Transport Assessment, post agreement of the distribution pattern. However, BWB have offered the VISSIM model to cover a study area that includes key junctions in the area but do not intend to extend this any further. The plan is to then assess other junctions individually (Junctions 10, Linsig) and will agree the AoI/study area with the TWG at the appropriate time. e. GN asked whether he should respond on this point to close it out. PW agreed that this would be useful. f. PW asked RH/HH from a LCountyC perspective whether BWB should expect comments on the VISSIM Technical Note or whether they would defer to GN on this. g. HH confirmed that LCountyC were keen to attend the meeting on 25 January 2023 but would mirror GN comments on the AoI. LCountyC are happy with GN reviewing the technical details of the VISSIM model but would want to be kept informed on matters. h. TB confirmed that from a NCountyC perspective he is happy to be kept in the loop but won't be providing much feedback.	**GN** **GN**
5	**Development Distribution**	

	a. PW confirmed that BWB issued the distribution information on 27 January 2023 and received comments from GN and TB this week. b. GB suggested that there are sensitivities about small traffic increases across the Swarkestone Causeway and that this should be considered in the Transport Assessment. c. PW thanked GB for pointing this out and confirmed that the distribution information was sent at face value which included the gravity model and EMGP1 parent zone approaches and recommended that EMGP1 parent zone is the most appropriate option to move forward with, although there are no significant differences particularly for car distribution, although there are local route choices avoiding M1J24 which were set out in the email issued to the TWG. d. RH confirmed that LCountyC will go through GN's email of 7 February 2023 but added that the traffic routing through Castle Donington is predicted to travel through the village and not the new bypass, which is a concern and also traffic is diverting away from the M1 and through Kegworth which needs further understanding. e. PW asked if any other authorities had comments on the distribution. No further comments were received. f. KT picked up on GN comments of 7 February 2023 and reiterated that traffic is avoiding M1J24 because of local congestion and instead choosing to route around local villages. KT shared a presentation about the journey time routes in draft to check with GN that this is what he is after. GN confirmed that the information looked suitable. KT confirmed she will finish the presentation and issue the journey time/distance details to the TWG, which would also include M1J25 as requested by GN. g. KT confirmed that AECOM would also include this information for local routes through Castle Donington (new bypass vs High Street) for LCountyC purposes. h. PW thanked KT and summarised the actions for the modelling: i. BWB to liaise with Imogen regarding the St Mowden scheme. ii. KT will come back with the distribution pattern and journey time data. iii. BWB will wait to hear back from the TWG on the VISSIM Technical Note and junction models. i. PW confirmed that BWB have issued base models to LCountyC and welcome any comments on those ahead of receiving the traffic flows, but wouldn't chase them for feedback.	**BWB** **KT** **BWB** **KT** **TWG** **LCountyC**
6	**Sustainable Transport Improvements**	

	a. PW confirmed that he was aware of Transforming Cities funding being available in the past, that was planned to be used to deliver footway/cycleway improvements along the A453. PW asked whether anyone was aware of any planned infrastructure improvements, particularly on the A453 between the EMG sites. b. TB stated that he could provide contact details of someone involved in the Transforming Cities Fund at NCountyC who can provide up to date information on what is being planned. c. PW thanked TB and mentioned that whilst the distribution pattern doesn't suggest HGVs will route through Diseworth, whether BWB should be considering banning HGVs through the village. d. RH asked whether BWB have reviewed HGV restrictions in the local area. PW confirmed that BWB had started to undertake this as part of reviewing the distribution pattern. e. RH asked BWB to undertake a review of the current restrictions and then liaise with LCountyC for their opinion. RH also mentioned that there are lots of schemes being ran by Parish Council's and not the highway authority but if BWB revert back with a plan then LCountyC can provide further comments.	**TB** **BWB**
	AOB a. GN mentioned that there is also another local scheme referred to as EM Point from 2018 located next to Finger Farm and asked whether this is included in the base model. b. PW confirmed that this should be picked up already but would check and revert back. c. GN highlighted the importance of getting the parameters agreed with the authorities at each stage and recommended that this is obtained before moving forward with the modelling. d. PW thanked GN for the above and confirmed that the authorities would continue to be taken through each step. GN also reiterated that it would be useful to have a project programme that can brought in as an agenda item at subsequent meetings. e. GB confirmed that he is leaving DCountyC at the end of the month and it is likely that Steve Hawley will be taking over as DCountyC's representative on this scheme, although this is to be confirmed (Nigel Atkinson is another contact at DCountyC). f. The TWG thanked GB for his contribution and wished him well for the future.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 9 MARCH 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Simon White (SW) – Leicester City Council (LCityC)
Tim Bellinger (TBe) – Nottingham City Council (NCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Alex Gray (AG) - LCountyC Network Data Intelligence
Imogen Smazanovich (IS) – Segro
Kit Tang (KT) – AECOM
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Laura Good, Tom Baker and Sonny Tolofari – LcountyC
Anthea Anderson (AA) – Leicester City Council (LCityC)
Lisa Guest - NCityC
Steph Meyers and Jon Parker – ITP
Stefan Stojsavljevic and David Green – Delta Planning

MINUTES:

Agenda item		Action
1	**Introduction** a. TBe introduced himself confirming he is the Transport Strategy Manager at NCityC and joined the authority in October 2022. b. PW confirmed that GB won't be joining now that he is retired but hasn't heard from anyone at DCountyC since, so will enquire to see who else will be picking up this project. c. PW confirmed that the previous meeting minutes will be amended to include AA as an attendee.	**BWB**
2	**Review of previous actions** a. PW went through the actions from the previous meeting: i. The Castle Donington scheme is now included in the base model and listed within V4.0 of the Uncertainty Log information. ii. The traffic flow Technical Note was issued to the TWG and will be discussed in more detail during the meeting. iii. A programme has been prepared and will be discussed at the meeting. iv. The VISSIM Technical Note has been revised with GN comments and has been re-issued. v. GB comment regarding the Swarkestone Causeway has been noted and will be considered in the TA. vi. Information has been issued on development distribution which will	

	be a focus of this meeting. vii. Base junction models have been issued to LCountyC, although BWB will not chase for comments but would welcome them if possible. viii. A plan was circulated showing the current weight restrictions in the local area. b. PW asked if anyone had any further comments on the meeting minutes, in addition to including AA as an attendee. No further comments were received.	
3	**Uncertainty Log V4.0** a. PW confirmed that the uncertainty log information has been updated to include the Castle Donington scheme close to A50J1 that was recently granted permission at Appeal. b. KT confirmed that in light of the above AECOM will re-run the forecast year without development scenarios. PW confirmed that all instructions have now been issued for AECOM to proceed with this. c. PW asked if anyone has any further comments on the uncertainty log V4.0 information. No further comments were received and hence this is now agreed.	**AECOM**
4	**Development distribution pattern** a. PW confirmed that BWB had sent through three lots of information: i. Expanded screenshot information was sent with the previous meeting minutes. ii. On 17/02/23, BWB provided the journey time analysis and a PDF document prepared by AECOM. iii. On 24/02/23, BWB provided further distribution information showing origin/destinations for where development traffic is travelling to from. b. PW suggested that based on the information received, and whilst both the gravity and parent zone approaches show similarities, BWB's preference is to run with EMGP1 parent zone approach. c. GN confirmed that AECOM's information was useful and exactly what NH were looking for. NH will write to confirm the preferred distribution approach. However, key things to consider is traffic using the High Street in Castle Donington rather than the new relief road. Similarly, traffic is traveling through Kegworth rather than using the link road. This should be considered in the TA. d. GN expanded on the above to say that the above is due to congestion around M1J24 and hence mitigation is likely to be needed to bring traffic back onto the SRN. However, in terms of distribution, whilst normally the preference is towards the gravity model, NH has no real position given the similarities.	

	e. RH confirmed that LCountyC will respond after NH, however, have the same concerns with regard to traffic travelling through Castle Donington and Kegworth villages. Politically this will be a 'hot potato' as residents of Castle Donington were asking for the relief road for some years. f. PW suggested whether the lack of traffic calming through the villages could be a reason why development traffic is routing this way? g. KT confirmed that the EMFM is a mathematical model and interpretation is required on some of the results. h. RH acknowledged the above and suggested that how the data/information is presented will be key as there isn't a significant amount of traffic using the routes and so the details in the TA should be clear. i. GN agreed that the EMFM has been coded correctly, however an iterative process is recommended to agree each stage of the modelling to ensure all key issues are covered and signed off by all parties, in particular any mitigation. j. PW asked GN when he will likely confirm the development distribution approach. GN confirmed that he would revert back this week and that the response will align with discussions during the meeting, with LCountyC to follow suit. k. HH agreed with GN and suggested that the traffic flows should be agreed before detailed modelling starts so that any mitigation is based on agreed traffic flows. l. PW mentioned that it appears there is no major preference to either distribution approach and hence are close to closing this item out subject to confirmation from LCountyC. Once the with development scenarios have been ran, BWB will be interested to see what the model outputs are and this will be assessed at face value to understand mitigation requirements and once mitigation has been set out then there is an iterative process to understand what benefits this will have. m. GN confirmed that the iterative process he is suggesting relates to the evaluation and discussion of results, modelling outputs etc. to make sure everyone is on the same page at all stages. n. SF asked whether there are already weight restrictions in the villages. RH confirmed that Castle Donington and Kegworth both have weight restrictions. MC confirmed that this is shown on the plan issued on 24/02/23. o. HH mentioned that with regard to HGV distribution, do the model outputs show traffic going through the villages? PW confirmed that they did initially but this was flagged by BWB and amended in the	**NH/LCountyC**

	EMFM. All HGVs now use the SRN as expected. p. GN confirmed the above and that the plots show HGV traffic using the SRN and avoiding weight restricted areas. q. DS confirmed that NCountyC's main concern is traffic routing through Ratcliffe on Soar village. The main routes leading to the County are strategic roads up until Rushcliffe, so this is the main area that should be considered within the iterative process. r. TBe confirmed that most of the impacts will probably be on the SRN. It is unlikely that there will be a major impact of NCityC network. s. SW confirmed that LCityC will defer to the lead local authority on development distribution, however, confirmed that freight traffic does travel far distances and therefore would like to see how these impact the strategic roads in the authority area. t. PW summarised the discussion on development distribution: i. BWB has provided information on development distribution including the additional outputs from AECOM. ii. BWB will wait to hear from NH and LCountyC to confirm distribution approach. iii. BWB will note the key areas that need focusing on for the TA mentioned by the TWG.	**NH/LCountyC** **BWB**
5	**Traffic flow Technical Note** a. PW confirmed that the Technical Note was issued on 19/01/23 to set out the methodology for calculating future forecast traffic flows. BWB are currently preparing a spreadsheet to initially compare the 2022 data from the EMFM and surveys to determine which furnessing methodology is most suitable. b. MC confirmed that 2022 data has been received from the EMFM and has been compared against the 2022 survey data to understand the statistical difference between the two. This has been carried out for 10 junctions across the network. c. MC confirmed that the two datasets aren't showing complete correlation for all turning movements and some movements show a statistical difference of +5, which means we can disregard Option 1 (as originally discussed) which is taking the flows directly from the model and hence will now consider Options 2, 3 and 4. d. MC confirmed that once the model outputs have been received a second Technical Note will be prepared to set out the methodology BWB recommend to adopt in calculating future forecast traffic flows. e. HH confirmed that LCountyC would be prioritising the distribution pattern information before reviewing the traffic flow Technical Note.	

	HH recommended that the furnessing approach is agreed with the authorities beforehand and if Option 4 is progressed there would be other information such as convergence criteria etc. which LCountyC would like to see before any modelling starts. If there is some unusual assignment in the area, then there may be a need to consider an engineering judgement but would welcome being consulted initially for sign off. f. MC confirmed that if Option 4 is progressed then further information on convergence criteria would be provided to the authorities but either way a Technical Note will be prepared setting out the methodology to be adopted. g. PW confirmed that BWB will continue to share relevant information and meetings are continually booked for the future to keep regular dialogue with everyone. However, an application will need to be submitted at some point, likely in June at present. h. KT mentioned that with the inclusion of the Castle Donington scheme an additional zone was created which has slightly changed the 2022 base year flow outputs, but this is within 10 pcus and hence should have no material change on the analysis BWB has undertaken on the original information issued.. i. MC thanked KT for notifying the above and that BWB would undertake spot checks to understand the difference, but this is unlikely to change the outcome of the statistical comparison being undertaken. KT agreed that the differences would not be material.	
6	**VISSIM Modelling Technical Note** a. PW asked GN whether BWB will be receiving formal comments from NH on the report. b. GN shared his screen with all attendees showing various route choices and highlighted that Routes 9 and 10 between the A42 and Castle Donington would take the nearside slip instead of the far side, as is currently shown on the plan. c. PW asked GN whether he would write to confirm this. GN confirmed he would raise this in an email so that it is logged. d. GN asked when the VISSIM base model is due to be issued. PW confirmed that the base VISSIM model is largely finished and should be issued next week. e. PW mentioned that from an AECOM point of view, BWB will wait to hear from NH and LCountyC on the distribution methodology before instructing the with development scenario runs. f. KT confirmed that the future baseline will be commenced based on uncertainty log V4.0. Once the distribution approach has been agreed,	**GN**

	AECOM would then run the with development scenarios. g. PW asked KT how long it would take to run the with development scenarios once the agreements have been received on the distribution pattern. KT confirmed that the model would take 1 week to run and then a further week would be needed to check the outputs and provide forecast flow changes etc. before they are issued.	
7	**Next steps** a. PW shared the project programme with everyone and provided an overview of how it has been produced/presented. In summary, it provides a chronological list of key milestones and dates for when information was issued and timescales for when responses are needed by from authorities. The colour coding system highlights green for where responses have been received, orange for where no response is needed/an authority is deferring to another authority and red where responses are still required. b. GN asked that when the VISSIM model is issued can the input files, associated spreadsheets and the LMVR be provided. PW confirmed that all this information would be shared with all authorities. c. GN confirmed that the programme should include sufficient for statutory consultation responses. In addition, the modeling is unlikely to be completely correct first time and so some scope for iterations should also be included. d. PW confirmed that the items on the critical path are agreeing the distribution and instructing the with development model runs and then to then agree the Area of Influence for the TA. e. PW confirmed that a WCHAR assessment is being prepared and should be completed soon, although understands there is no requirement for this to be shared at this stage of the process. f. RH highlighted that the WCHAR will be assessing access by all modes however the authorities have not had sight of the access designs which are fundamental to this work. PW confirmed that the access designs will be shared however have not so far because BWB are awaiting the modelling to be undertaken to know what is required from a capacity perspective. RH acknowledged this but asked for the access designs to be included on the programme with time also included for comments/iterations, and that Road Safety Audits will need to be undertaken for the avoidance of doubt . PW confirmed that the programme can be continually updated and will be amended to include the key tasks. g. PW highlighted that the public consultations are now scheduled for May after the local elections and BWB will be continuing with the TA work as expediently as possible and will continue sharing information with the authorities, as the process so far has been really useful. However, at	**BWB** **BWB**

	some point BWB will be asked to gear up to submit a planning application and therefore some assumptions may need to be taken but the aim is to minimise these as much as possible. h. RH acknowledged PW comments but ultimately confirmed that the work will need to be done either pre-application or as post submission work. PW understood RH but confirmed that the right balance needs to be struck to meet the client's needs. i. PW asked if anyone has any further business to raise. SF asked if there has been any mitigation suggested for the SRN. PW confirmed that this is premature, and that AECOM still need to complete the modeling work first of all before mitigation is considered. j. PW thanked all attendees for their time and concluded the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 13 APRIL 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) – National Highways (NH)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) & Simon White (SW) – Leicester City Council (LCityC)
Tim Bellenger (TBe) & Lisa Guest (LG) – Nottingham City Council (NCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Alex Gray (AG) and Patrick Brooks (PB) - LCountyC Network Data Intelligence
Kit Tang (KT) & Clare Norris (CN) – AECOM
tefan Stojsavljevic – Delta Planning
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Catherine Townend (CT) – National Highways
Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Laura Good, Tom Baker and Sonny Tolofari – LCountyC
Steph Meyers and Jon Parker – ITP
David Green – Delta Planning
Imogen Smazanovich (IS) – Segro

MINUTES:

Agenda item		Action
1	**Review of previous actions** a. PW confirmed that BWB are still liaising with DCountyC to see who is best placed to take over from Geoff Blissett on the TWG. TBe mentioned that he is on another Local Transport Working Group where there is a contact from DCountyC attending and so will come back and advise who that is. TBe has since confirmed that this is Alan Marsden and therefore BWB will liaise with him to see if he is best placed to join the TWG moving forward. b. PW went through the actions from the previous meeting minutes (March): i. Forecast with and without development flows received from AECOM. ii. Distribution has been agreed with the authorities (gravity model). iii. BWB have prepared a list as a reminder for specific things to cover in the TA raised by certain authorities over the course of the pre-application discussions. iv. The VISSIM base model and LMVR has been issued to the authorities. v. Access designs and programme to be discussed in this meeting and sent separately. c. PW asked if anyone had any comments on the previous minutes. No comments were received hence they are agreed.	**BWB**

2	**VISSIM base model & Local Model Validation Report** a. PW confirmed that the VISSIM base model and LMVR were issued at the end of March. b. GN thanked PW for engaging and appreciated the complexity of the model and will aim to provide a response by 5th May 2023. c. GN highlighted how it is important to have the base VISSIM model agreed with forecasting then built from this to avoid abortive work. d. PW thanked GN and confirmed that there are other things to do before running the VISSIM model (traffic flow furnessing etc.) and so will welcome GN's comments.	**GN**
3	**With development model outputs and AoI** a. KT shared a presentation of the EMFM 2025 and 2035 forecast results and provided a summary: i. The results build on the previous SATURN plots, although these were in % and the forecast report results are now in pcus (with a pcu factor of 2 for HGVs). ii. The forecast report considered the 2022 (without development) and 2025 and 2035 (with and without development) scenarios. The sensitivity test including the Freeport and Isley Walton schemes will be run shortly. iii. The are two access points; the first being a new 3-arm roundabout and the second being a fourth arm off the existing Hunter Road roundabout. The agreed development trip generation has been split with 98% from the 3-arm roundabout and 2% from the Hunter Road roundabout as per the masterplan. iv. The gravity model approach has been used to distribute the development traffic. v. Plots were displayed showing the routing of car and HGV traffic, in pcus rather than %. This reiterates the findings from before in that there is some 'rat running' through local villages (Kegworth, Castle Donington and Diseworth in particular). vi. There is a greater amount of rat running in the PM peak than the AM peak. However, HGVs largely stick to the Strategic Road Network (SRN). vii. Some non-development trips change their route choice towards Derby from A50J1 and J2 to A52 via M1J25 (circa 100 pcus). viii. AoI has been determined by links with a forecast flow change of +/-5% or 30 additional pcus. ix. There is quite a high change in delay in 2035 around Toton but this is where there is already high delay without the development and so is sensitive to change. x. VoC ratio plots are presented by two semi circles; the left half showing without development and right half showing with development. xi. VoC plots are shown as nodes and those that are expected to	

	experience a maximum VoC of 85% or above. Any nodes with a VoC of less than 85% are not shown (except for site accesses). xii. VoC increases at Finger Farm with the development. The M1J24 and EMGP1 gyratory are already congested without development, although some nodes do jump into the next band criteria with the development, hence possible impacts.	
	b. PW thanked KT and suggested that the study area will include junctions with a VoC above 85% and where the development may be having an impact, although it is for BWB (with AECOM's support) to lead on and present in a format that is helpful for the authorities to review. Once the study area is agreed, BWB will commission new surveys at those junctions where data is not already obtained. The junctions on the A453 to Diseworth will be modelled regardless given the possible sensitivities.	**BWB**
	c. SF mentioned that Page 18 shows all junctions that are expected to experience increases in delays and whether we know the actual delay changes there. PW confirmed that BWB can delve into the details further and come back to the authorities with additional information.	
	d. GN confirmed that the AoI looks right and asked whether a copy of the presentation can be shared. PW confirmed that BWB would issue the presentation after the meeting, which has now been sent.	**BWB**
	e. RH thanked PW for agreeing to share the presentation and asked when the full report is expected to be produced with the sensitivity assessment results. KT confirmed that the report has been drafted but only includes the with and without development scenarios. This should be ready in the next 2 weeks. The forecast results for the sensitivity test will be appended to the Forecasting Report or provided in a separate TN, once the planning assumptions have been confirmed and the model has been run.	**AECOM**
	f. RH first thoughts are that the model shows routing through local villages and therefore will be interested to see the proposed mitigation and how traffic can be moved back onto the SRN and how the impacts can be resolved at the junctions on the SRN.	
	g. PW confirmed that BWB would consider this and will be focusing on the 'with' and 'without' development traffic scenarios first before looking at the sensitivity test.	
	h. RH acknowledged that the focus is on with and without development, however the Freeport schemes are committed and Isley Walton is a Local Plan promotion and therefore LCountyC are interested in seeing the sensitivity test results.	
	i. PW confirmed that this information will be provided, however the study area would not be increasing as a result of the sensitivity test over and above that to be agreed in the TA, but rather the junctions within the study area will be tested with the sensitivity traffic flows to understand	

	the end position. j. GN confirmed that in terms of mitigation, an iterative process is needed and reciprocated back through the model as a result. PW agreed with GN and that this will be needed; if we remove traffic from the villages then we will need to understand how this affects the SRN further.	
4	**Traffic flow furnessing note** a. PW mentioned that comments have not been received on the traffic flow furnessing note, although it is for BWB to build upon the process set out in that note once traffic flows are received from the EMFM. However, PW asked if anyone had any further comments at this stage of the process. No comments were received. b. PW confirmed that there will be more to come on this exercise at the appropriate time.	
5	**Sensitivity assessment** a. PW reiterated that in November 2022, BWB set out the planning assumptions for the Freeport and Isley Woodhouse sites from a sensitivity testing point of view. Uniper was more straight forward as the TA is on the panning portal. However, EMIP has less information, but it was agreed that this scheme should still be included and AECOM have retained it in the uncertainty log and have likely job numbers for this scheme. b. PW asked if anyone had any comments on the above. GN asked whether BWB would like comments on the planning assumptions. PW confirmed that BWB would summarise the details building on the information AECOM have for the authorities to then comment. c. SF confirmed that NH have not received any further details on the EMIP Freeport scheme either. d. PW thanked SF and confirmed that the planning data assumptions will need to be based on the best information available. e. PB asked whether the uncertainty log data includes the other EMAGIC cluster sites. PW shared the uncertainty log information which confirmed that this includes the EMA aviation expansion site within the EMAGIC cluster. f. KT confirmed that the EMA aviation expansion will be included as it is within the Freeport and so this will be included in the sensitivity test. PB agreed with KT. g. PW asked whether AECOM have enough information to run the sensitivity assessment or whether any other planning data details are needed.	**BWB**

	h. KT confirmed that planning data is already within the EMFM but these schemes are toggled off at present and can be toggled on for the sensitivity tests. If there are any changes to the planning data assumptions, AECOM can update if required. KT confirmed that the job numbers are taken from the business case or Freeport websites. i. PW shared an email sent by BWB to all in November 2022 which showed the breakdown of the Freeport and Isley Walton schemes and the Transport Assessment details for the Uniper scheme that are available (trip generation, GFA). j. KT confirmed that job numbers is the standard data requirements for modelling schemes in EMFM; however, a sense check can be undertaken to compare this against the trip generation figures in the TA if required. k. PW confirmed that BWB would collate and issue the trip generation for Uniper and work with the job numbers for the other sites. No comments were received against this approach. l. PW set out that in terms of Isley Walton, BWB and Delta Planning have been liaising with NWLDC and confirmed that overall, there are understood to be plans to develop 4,000-5,000 houses plus commercial development at Isley Walton. However, SS has picked up that, from a Local Plan allocation perspective, the are expected to be 1,785 dwellings delivered by 2040, but by 2035 (TA assessment period) only 1,000 houses are expected to be built out. The difference being that the 4,000-5,000 homes are planned for post 2040 in the next Local Plan. Hence, the strategy for the TA is to look at 1,000 homes as part of the sensitivity assessment to strike the right balance with what will give us meaningful information. m. RH asked if BWB could send the correspondence with NWLDC and LCountyC will review and comment. PW confirmed that was fine and that BWB can assess whatever is needed but recommended that it should be meaningful. n. SS added that the Isley Walton site does not currently hold any planning weight but for context the 5,000 dwelling figure has been ruled out by NWLDC until post 2040 and a realistic figure is 1,785 dwellings. Ian Nelson at NWLDC, who is leading on Local Plan allocations, suggested that 1,785 dwellings is what will carry them through the next Local Plan period and by 2035 approximately 1,000 of these can be expected to be built. NWLDC haven't had much engagement with Isley Walton and aren't expecting any construction until 2027/28. SS is happy to send across the correspondence for LCountyC to pick it up with NWLDC.	**AECOM** **BWB** **BWB**
6	**Next steps/programme** a. PW shared the project programme on screen. The planning submission	

	date is set for this summer, with public consultation just before in June, after the May elections. The items in the programme include for receiving comments from the authorities and iterations of certain tasks but there is a lot of work that needs doing up to the planning submission date but thank the authorities for their continued input. b. PW confirmed that the programme will be issued alongside the meeting minutes.	**BWB**
7	**AoB** a. PW mentioned that improvements for Hyam's Lane will be discussed with LCountyC in the coming weeks. b. KT confirmed that the EMFM presentation has been updated with some minor changes and so will be re-issued. This has since been received and circulated to the authorities. c. PW thanked everyone for attending and concluded the meeting.	**BWB/Segro**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 11 MAY 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) & Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) – Nottingham City Council (NCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Alex Gray (AG) – LCountyC Network Data Intelligence
Kit Tang (KT) & Clare Norris (CN) – AECOM
Imogen Smazanovich (IS) – Segro
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Simon White (SW) – Leicester City Council (LCityC)
Lisa Guest (LG) – Nottingham City Council (NCityC)
Laura Good, Tom Baker and Sonny Tolofari – LCountyC
Jon Parker – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of previous actions** a. PW reviewed the previous meeting actions: i. BWB had a meeting last week with Nigel Atkinson of DCountyC who is the interim highways lead at the authority and confirmed that following initial discussions is happy to be merely kept informed of key updates but doesn't intend on joining the TWG meetings. Similarly, the Forecasting Report has been shared with Andy Gibbard of DCityC who is also happy to be kept updated with key information only. ii. BWB have received comments from GN on the base VISISM model and that these are being discussed in detail in a separate meeting at 12pm on 11/05/23. iii. AECOM's presentation has been shared, along with the Forecasting Report, which is to be discussed in further detail at today's meeting. iv. RH has liaised with NWLDC with regard to the Isley Walton scheme and what land use assumptions are to be tested in the sensitivity assessment. b. PW asked if there are any further comments on the previous meeting minutes other than those received from KT. No further comments were received.	

2	**AECOM forecasting report and study area** a. PW reiterated that MC issued an email on 28/04/23 setting out BWB's suggestions for the study area. This was followed by the Forecasting Report issued on 03/05/23. b. PW mentioned that the AoI in the Forecasting Report includes 23 junctions based on those expected to operate with a VoC above 85% and BWB have reviewed the information in further detail and proposed 15 of these junctions to be included in the study area. This is based on the difference in VoC and the absolute difference in traffic flows between the with and without development scenarios. c. PW suggested that based on the proposed study area, some authorities may choose to follow DCityC and DCountyC in merely being kept updated of key matters rather than being included in all meetings/correspondence moving forward, but this is up to each authority and what they are comfortable with. d. RH asked whether the junctions in the table could be plotted on a plan and following that it may be that other junctions should be included. For example, two junctions are included at either side of Castle Donington but not one in the middle. e. MC highlighted that the table only includes junctions with a VoC above 85%. f. RH confirmed that the High Street/Park Lane junction is in the table but not proposed to be included in the study area and questioned why there is a reduction in traffic at this junction but not at the other junctions at either end of Castle Donington. g. KT mentioned that some traffic is being displaced along other routes with the inclusion of additional development traffic and hence why there may be a decrease at certain junctions. h. RH suggested that a plan is prepared plotting the junctions before finalising the study area. In addition, other junctions that have been excluded from the study area are expected to operate with a VoC of 85-95% but have been disregarded because the change in traffic is expected to be low, but may need modelling to understand the impacts on delays, queues etc. i. GN suggested that the table is a useful starting point and would welcome a plan. It is noted that M1J25 is included in the proposed study area, so BWB need to make sure the traffic flows are obtained from the EMFM. j. GN also suggested that A42 Junction 14 should be reviewed and whether it is worth modeling this junction. However overall, the main junctions have been included in the study area from a NH perspective.	

	k. TB mentioned that NCountyC's normal stance is for all junctions expected to see any increase of 30 movements to be included in the study area. However, NCountyC would review the details and respond shortly. l. TBe agreed that the impacts within Nottingham are minimal and hence no further assessment is required from NCityC's perspective. m. PW asked whether TBe would like to step aside from future TWG meetings. TBe suggested that it would be better if he is kept in the loop and if able to attend in the future would do so. n. AA also confirmed that LCityC have no major concerns but to be kept updated with any key pieces of information, particularly once mitigation is being considered, to see if there are any knock on effects in Leicester.	**NCountyC**
3	**Sensitivity test assumptions** a. PW suggested that agreements have now been made regarding the land use assumptions for the Freeport and Isley Walton sites being considered in the sensitivity assessment. b. PW mentioned that RH had responded on the Isley Walton scheme following discussions with NWLDC and asked for the assessment to include 1,000 dwellings plus 24,000sqm of employment development, 1x secondary school, 1x primary school, 1x nursery and 1x local centre. c. PW agreed that the above would be taken into account and asked whether KT has enough information to run this scenario. d. KT confirmed that AECOM have all the information needed and shared a presentation showing details of the 2035 sensitivity assessment scenario to check the trip ends in the model. In effect, the Uniper site has been split into north and south zones. Similarly, Isley Walton has been split into east and west zones with two access points, the first from the EMA roundabout and the second via a new priority junction from the A453. Traffic from Isley Walton has been split evenly between the two junctions. e. KT asked whether this approach is considered suitable. No responses were received. KT confirmed she would share the information presented at the meeting for the avoidance of doubt. f. SF asked why 1,000 houses are being considered for the Isley Walton scheme. PW confirmed that this is because of timescales and the number of houses expected to be delivered by 2035, which is the future year being assessed in the modelling. g. GN asked whether the details in AECOM's presentation reflect the Uniper and Isley Walton sites only and that the EMIP and EMA aviation expansion sites are also included in the sensitivity assessment. PW confirmed that all Freeport sites are included with the latter two based	**KT**

	on job numbers only because that is the data available.	
4	**Traffic flow furnessing and future forecast traffic flows** a. PW shared an email sent on 02/05/23 setting out the future forecast flows highlighting that there is a discrepancy between the traffic flow data extracted from the EMFM model. b. VD mentioned that the key question is what dataset is to be used for the traffic flow furnessing ('demand' or 'actual' flows). Demand flows include traffic from the model assignment independent of when the flow arrives, whereas actual flows include traffic that reaches a particular link during that time period. Typically, AECOM provide actual flows to consultants but nevertheless they should largely be similar, unless there is high levels of congestion where demand flows could be higher. c. VD confirmed that the strategy for furnessing the traffic flows is to look at the difference in link flows between the base and future year SATURN flows and apply the difference proportionately to the surveyed turning movements. d. VD mentioned that for certain junctions the volume of traffic entering a is different to the volume of traffic exiting and hence this is causing problems with convergence. e. GN confirmed that he will review the details within the email of 02/05/23 and confirm his preference on dealing with this issue but is focusing on the base VISSIM model first of all. f. RH confirmed that LCountyC will review the information and respond accordingly. g. KT highlighted that in terms of the traffic flow data, the destination flows on A453N is also the approach arm to M1J24 so the queuing flows are picked up on approach to M1J24 as well, so to be careful when reviewing the information.	**GN** **LCountyC**
5	**VISSIM base model** a. PW confirmed that BWB have a meeting with GN and his colleagues at 12pm on 11/05/23 to discuss the comments received on the base VISSIM model and asked whether any other authorities are expecting to provide further comments. b. RH suggested that LCountyC will wait GN's comments and respond then as they see fit.	
6	**Next steps/AoB** a. PW confirmed that BWB will take on board comments received at today's meeting, particularly on the study area and base VISSIM model	

	to keep things moving in the right direction. b. GN asked whether everyone received a copy of NH's audit note on the base VISSIM model but is conscious that this was not issued to DCityC and DCountyC. c. PW confirmed that DCityC and DCountyC are happy to be kept abreast of the VISSIM model information. d. GN asked for the names of the officers at DCityC and DCountyC. PW confirmed that this is Andy Gibbard and Nigel Atkinson respectively. GN confirmed he would copy them into future correspondence. e. PW thanked everyone for attending and concluded the meeting.	**GN**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8 JUNE 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Steve Freek (SF) & Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) & Lisa Guest (LG) – Nottingham City Council (NCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Alex Gray (AG) – LCountyC Network Data Intelligence
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Simon White (SW) – Leicester City Council (LCityC)
Laura Good, Tom Baker and Sonny Tolofari – LCountyC
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM
Imogen Smazanovich (IS) – Segro

MINUTES:

Agenda item		Action
1	**Review of previous actions** a. PW reviewed the previous meeting actions: i. A plan showing the junction locations for the proposed study area was issued on 16.05.23. ii. Further information was issued to GN with regard to A42 Junction 14. iii. Further information was issued with regard to junctions on the A453 leading to Nottingham in NCountyC's jurisdiction. iv. Discussions have been held with NH and Jacobs with regard to traffic flow furnessing. v. Discussions have been held with NH and Jacobs on the base VISSIM model. b. PW asked if there are any further comments on the previous meeting minutes. No further comments were received hence they are agreed.	
2	**AECOM forecasting report and proposed study area** a. PW confirmed that the forecasting report has been issued and shared a plan on screen showing the junction locations for the proposed study area (green showing those proposed to be included in the study area and red showing those proposed to be excluded from the study area). b. PW thanked TB and DS for their off-line conversations regarding Junctions 21/22 located on the A453 towards Nottingham and whether they agree with our justification/position for removing these from the study area.	

	c. TB confirmed that the 30 two-way threshold is set by NCountyC and therefore these junctions do need including in the study area. However, the Ratcliffe on Soar Freeport site has modelled these junctions, which showed that there was plenty of capacity available. NCountyC would be happy for BWB to use the same input files for efficiency. d. PW thanked TB however confirmed that the majority of time incurred is through commissioning the traffic surveys and furnessing the traffic flows rather than building the models themselves. e. TB confirmed he is happy to see whether any traffic survey data is available to send to BWB. However, the 30 movement threshold is set by NCountyC and hence modelling is needed. f. PW appreciated TB's position and understood why certain junctions need assessing for political reasons, even if there is not expected to be any capacity problems. He set out that whilst the 30-movement threshold is frustrating, seeing as such an increase should never result a 'severe' impact, and comes from the former Guidance on Transport Assessment, it is understood that there is a wider picture with satisfying members at committee. Therefore, BWB will include these two junctions in the study area. g. PW asked TB whether the models and assessment undertaken by Arup has been agreed. TB confirmed that Arup tested different phases of development and for the initial phases the results showed that there are not any impacts at either junction. There is nervousness about the Freeport sites in NCountyC and potential rat running through local villages and therefore if members ask questions on this it is important to demonstrate how there are not expected to be any impacts. h. PW asked LCountyC what their thoughts are on the study area and if they have come to a conclusion as to whether they agree with our position. i. HH mentioned that there are reservations about the approach being taken, particularly on the willingness to agree a study area without further understanding of the impacts of the wider Freeport designation. The strategic modelling for the sensitivity test is still being undertaken and so LCountyC would want to see those results before agreeing to an Area of Interest (AoI) and study area. Whilst BWB have disregarded junctions towards Charnwood Forest, the outputs suggest that mitigation could be needed on the Strategic Road Network to bring traffic back onto those routes, hence the iterative process discussed at previous TWG meetings. However, in terms of the study area, LCountyC would suggest that the strategic modelling is looked at and interventions are proposed to make the best use of the available network, recalling discussions in the past about the potential for dualling on the A453. j. PW mentioned that the possibility of dualling the A453 was raised initially as a potential option but the modelling undertaken by AECOM shows	**NCountyC**

	there are no link capacity issues on the A453, hence dualling is not required to support EMGP2 (albeit the Finger Farm roundabout and the signal junction to the airport will need looking at). Hence whilst the sensitivity testing will be run using the agreed parameters/traffic flow data, BWB do not propose to increase the study area of the EMGP2 TA on the back of this, as it is not SEGRO's responsibility to deal with impacts generated by the other Freeport sites together with Isley Walton. Instead, BWB can test the impacts of the wider Freeport and Isley Walton schemes within a suitable study area triggered by the EMGP2 development and consider mitigation at any junction where significant impacts are identified. k. HH highlighted that the sensitivity assessment is not just for study area purposes but also infrastructure requirements to support all the developments in the local area. Therefore, traffic flows for the sensitivity assessment sites need considering before the study area is determined. l. RH mentioned that the NPPF asks for a cumulative assessment and therefore LCountyC cannot agree the AoI until they see the outputs from the sensitivity test. m. PW confirmed that instructions will therefore be sent to AECOM to proceed with the sensitivity test, seeing as the inputs are agreed, and BWB can then share the outputs before having a discussion further on the study area. Hopefully this information will be available ahead of the next TWG meeting where we can discuss things in more detail, with a view to finally agreeing the study area.	**BWB**
3	**Traffic flow furnessing and future forecast traffic flows** a. PW mentioned that BWB have been in discussions with GN and Jacobs to agree the approach to furnessing the traffic flows following GN's email of 26.05.23. b. VD mentioned that there were discrepancies between the flows entering and exiting certain junctions meaning there are difficulties in carrying out the furnessing process. GN has therefore suggested we take a cordon of the SATURN model to match the VISSIM and use the flows from the cordoned data which should get rid of the extra demand that is stuck in the network elsewhere. c. BWB are happy to consider this approach for testing the network of junctions in VISSIM but it would not work for the other individual junctions. For these, BWB propose to look at the difference in SATURN flows (actual and demand, taking the worst-case, noting that AECOM have a preference for actual flows to be used) and furness those to provide a forecast scenario. d. In terms of furnessing, the observed counts do not calibrate against SATURN flows and hence BWB propose to take the absolute difference in flows from SATURN and add them to the observed link flows. This will allow the matrices to be converged to calculate the revised turning	

	movements. The initial furnessing exercise has shown that the matrices are converging well. e. HH asked whether this information will be issued within a revised note. PW confirmed that this information will be provided in a note and circulated to the TWG. f. HH mentioned that LCountyC have reviewed the initial TN on the traffic flow furnessing methodology but thought it was better to wait until an approach has been decided upon so that everything can be reviewed in the round.	**BWB**
4	**VISSIM base model** a. VD mentioned that BWB have updated the VISSIM model to reflect GN comments and are now tweaking the flows to converge the model and following that the model can be resubmitted to the TWG before looking at the forecast scenario flows. b. PW asked LCountyC if they are comfortable for BWB to continue liaising with GN and update them. HH confirmed LCountyC are happy with this, but asked to be kept in the loop on key updates and emails. PW confirmed that BWB would continue to do this and confirmed that GN is reviewing things in detail, which should hopefully give LCountyC the confidence that the model will be robust. c. GN asked what timeframes BWB are working to, to get the base model agreed and whether BWB will be issuing the model alongside a note confirming what changes have been made. VD confirmed that a log has been produced with all the model changes which will be submitted with the network base model. d. GN thanked VD and asked PW what the timescales are for resourcing purposes. VD suggested that the model should be issued next week by 16/06/23.	**BWB**
5	**Next steps** a. PW confirmed that AECOM will be instructed straight away to undertake the sensitivity testing. BWB's next steps are then to agree the study area on the back of the sensitivity testing and to issue information on this to inform the next TWG. Beforehand there is work to be completed on the base VISSIM modelling and the traffic flow furnessing. b. PW confirmed that this work would then inform what further traffic survey work is needed, which will probably have to wait until after the school summer holidays now.	
6	**AOB** a. PW thanked RH for the email she sent to SM with regard to sustainable	**ITP**

	travel, which will be considered accordingly. b. RH mentioned that LCountyC have been contacted by Fairhurst out of the blue regarding an AiP for a structure on Hyam's Lane. However, LCountyC have not seen any details regarding changes to Hyam's Lane so cannot engage with Fairhurst on an AiP. It also suggests that work is being undertaken on the internal site layout but not being shared. c. PW confirmed that Fairhurst are working on the internal detailed design with focus on Hyam's Lane. BWB have not received any updates on the internal layout recently;, but ultimately this work will be being undertaken by Fairhurst with BWB working on the external off-site works. d. RH highlighted that Fairhurst suggested they are looking at the AiP for the bridge only. PW suggested that this is probably the work completed so far but Fairhurst will ultimately be looking at the internal layout. RH confirmed that LCountyC cannot engage on this matter any further without further information being provided about the internal layout. PW said he would make the Client aware of this. e. PW thanked everyone for their time and ended the meeting.	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; WEDNESDAY 20 SEPTEMBER 2023 AT 1500 HOURS (ON TEAMS)

ATTENDEES:
Rebecca Henson (RH) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Imogen Smazanovich (IS) – Segro
Paul Wilson (PW & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Steve Freek (SF) – NH
Lisa Guest (LG) – NCityC
Simon White (SW) & Anthea Anderson (AA) – Leicester City Council (LCityC)
Alex Gray, Laura Good, Tom Baker and Sonny Tolofari – LCountyC Network Data Intelligence
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM

MINUTES:

Agenda item		Action
1	**Review of previous actions** a. PW reviewed the previous meeting key actions: i. BWB have agreed to model the two additional junctions requested by NCountyC along the A453 corridor ii. AECOM had completed the sensitivity testing, PW issued the report on 27/7/23 and HH responded on 23/8/23; to be discussed in item 3 of this meeting iii. An updated traffic flow furnessing note was issued to all by PW on 18/9/23; to be discussed in item 4 of this meeting iv. The updated VISSIM base model was issued to Jacobs by VD on 15/8/23; to be discussed in item 5 of this meeting. b. PW asked if there are any further comments on the previous June meeting minutes. No further comments were received hence they are agreed.	
2	**Project update** a. IS provided an update; there is a commercial/land ownership issue with regards to the airport which Segro are working on. This has affected the timescales with regards to the planning application, but a focus remains on transport because of the timescales involved. Hence BWB remains instructed to continue accordingly. b. RH asked if an updated programme can be shared to assist with	**IS/BWB**

	resource planning. IS said that this is difficult at this stage of the process, but will work with BWB with re. to timing assumptions and provide a guide based on the transport modelling work which has been commissioned. c. IS asked the question of the TWG as to whether they were aware of grant funding being shortlisted for Midlands Connect to engage with the highway authorities to undertake some modeling work for the Freeport schemes in their entirety? CT confirmed NH have not heard anything, other than some HS2 modelling work is planned to be undertaken in the same area. TB was aware of a case being made, but had not heard anything further. IS will see if she finds out anything further, because the TWG would need to be aware of this.	
3	**Sensitivity test outputs and proposed study area** a. PW set out what had been issued, and that HH replied on 23/8/23. BWB have reviewed the comments and ran through wat HH had set out, which, in summary, was *"fewer trips on the Strategic Road Network (SRN) and more trips on local roads such as Grimes Gate, through Diseworth, and through Castle Donington and Kegworth to avoid the congested M1 Junction 24"* and that LCountyC *"would therefore welcome reconsideration of the proposed study area in this regard and in line with our previous conversations which have also identified the similar journey times for alternative routes on the LRN"*. b. In response, PW reminded that it was not for BWB/Segro to produce a strategic TA for all Freeport and related sites; stating that if it would help from a wider political perspective, we could consider assessing the following additional three junctions to take the total being assessed to 20; the High Street/Delven Street/Park Lane signal controlled junction in the centre of Castle Doington, The Green/Lady Gate/Long Mere Lane cross roads to the south of Diseworth and A6/Kegworth Bypass roundabout. c. RH questioned the lack of modelling in relation to the Freeport sites and Isley Woodhouse (IW) site, what with NPPF requiring cumulative assessments being undertaken. PW confirmed that we would be assessing these sites as part of the sensitivity testing, but the study area for the EMGP2 TA would not be driven by it, otherwise Segro/BWB would be undertaking in effect the strategic TA for all such sites. d. RH confirmed they will assess the planning application in line with NPPF and report back to NWLDC accordingly. PW questioned whether LCountyC therefore have a wider study area in mind to cover the other Freeport sites and IW? e. HC set out that such growth needs considering holistically. In response to IS's question, RH confirmed that only our impact would need to be mitigation, but our impacts could be wider as a result of the other committed development. RH have had concerns for from the start about the study area, and asked for it reviewing. HH elaborating by	

	saying we need to understand what the strategic modelling is telling us, appreciating the impact is brought about from other developments, and hence the strategic requirements to deliver that growth. f. Hence HH was of the opinion that a narrative should be agreed with stakeholders as to what is happening with the modelling outputs and agree what needs to be undertaken to answer it. Adding a couple of additional junctions to the study area wouldn't necessarily answer this, nor would simply looking at capacity assessment findings in isolation. HH asked what other stakeholders thoughts, albeit PW confirmed their agreement to 17 junctions to date. g. HH asked whether we are content that if a junction shows little flow difference in PRTM that such a junction does not need to be looked at, or is that identifying where we should be focusing our attention to enable this growth? PW responded in that a balance needs to be struck; a change in flows and PRTM outputs as to forecast congestion has been considered when determining the study area, which, in his option, provides very good coverage overall, even when including for the sensitivity testing. Post agreeing a study area and furnessing of traffic flows, capacity assessments would be undertaken to help determine what mitigation may be required, h. HH continued to challenge this, saying that within PRTM, on a congested part of the network, the most congested junctions will be subject to the least amount of change because they are already at capacity, Mitigation shouldn't be based on changes in traffic flow, but what is required to deliver growth. The strategic modelling outputs need to be looked at holistically, to focus on the constrained parts of the network where traffic needs to be travelling on, typically the SRN, where mitigation should be focused on, rather than off-site junctions. i. VD interjected and asked why are we using strategic modelling in the first instance? RH clarified matters, saying the mitigation strategy should not focus on what we can see from the modelling outputs, but address the cause of the issue. For eg, if traffic is routing through Castle Donington to reach the A50, LCountyC would want to see it use M1 J24. Hence the mitigation strategy should focus on mitigating the SRN to draw traffic back through it. j. VD questioned whether we should add traffic through the congested junctions, rather than assessing the minor junctions as a result? HH said no; we should look at what PRTM is showing and then consider what strategic mitigation is required to enable the growth. This may require infrastructure over and above this project, which is likely, but it's an iterative process, which GN has referred to previously. PRTM could then be re-run without assessing the more minor junctions. k. PW said he would not disagree with anything discussed; this section of the agenda focuses on agreeing an actual study to progress with. But what does that mean with regards to potential additional junctions? The additional ones suggested, even with re-routing, are not forecast to be	

	an issue in capacity terms. HH said he does not think we can fix a study area at this stage as a result and stride ahead, without considering how it can be delivered looking at junctions in isolation. l. PW confirmed that we need to move forward, and HH confirmed that this is happening, post the very useful PRTM outputs, but we have to make a start somewhere. PW said we'd consider these useful discussions in further detail, but are confident the key junctions are being considered. m. RH asked when the plan presented on screen was shared; PW confirmed the plan has not been updated (but can be), hence this would be undertaken regardless. n. HH asked if we knew what the emerging mitigation strategy is looking like? PW confirmed that dualling of the A453 does not appear necessary even in the sensitivity testing, but there are options at Finger Farm, and whilst M1J24 has been discussed with Ratcliffe, it appears that certain improvements may be possible, but a significant amount of work was undertaken for EMGP1 and very little land left to go further. o. HH was pleased to hear this and questioned whether this would be the preferable way forward, sharing possible mitigation strategies with the TWG for comment, rather than looking at a large number of off-site junctions. PW confirmed we would consider this accordingly, with the key focus being the VISSIM model which includes Finger Farm and M1J24, and only concept designs are ready which need to be considered further modelling wise before they can be discussed further. p. Hence a focus can be placed on this, to understand impacts, and any further junctions which may be agreed as being assessed would follow in due course anyway, what the current position with the project. IS does not want us to slow down if such important work can be undertaken now and is more inclined to get on with it than not. IS and PW will therefore talk tactics having heard LCountyC's thoughts in particular.	**PW** **IS & PW**
4	**Traffic flow furnessing and future forecast traffic flows** a. VD provided an overview of the report which had been issued on 18/9/23, reminding attendees of the four options originally presented to be assessed. b. In summary, post the GEH assessment test, Options 1 (extraction of data directly from the PRTM model) and 3 (calculating the difference between the 2022 base and 2025/2035 future PRTM flows in absolute numbers and applying the increase directly to the 2022 observed counts) were discounted. c. Option 2 (calculating the percentage difference between the 2022 base and 2025/2035 future PRTM flows and applying the percentage growth directly to the 2022 observed counts at turning movement	

	level) was not considered to be a suitable approach either. d. Hence Option 4 (adding the difference in link flows between the 2022 base and 2025/35 future PRTM to the 2022 observed link flows to derive a target link flow) was therefore considered the most applicable and recommended as a suitable way forward, However, with regards to the junctions contained within the VISSIM model, because the number of vehicles entering the model did not match those exiting (perhaps because of congestion) it was agreed with GN that the model would be cordoned in PRTM and an origin and destination flow based on the VIISIM network and using that in line with Option 4 to derive forecast flows. AECOM will therefore be commissioned on tis basis. e. No initial comments were received but VD confirmed he is happy to ask any subsequent questions should they be forthcoming (and comments/hopeful agreement would be welcome regardless)	**BWB/IS** **LCountyC, NCountyC and NH**
5	**VISSIM base model** a. CT confirmed that the base model is agreed and has been signed off by NH, with forecasting model to follow. b. GN requested that the relevant information is shared with the TWG, which PW confirmed would be the case,	**VD**
5	**Next steps** a. PW confirmed that the plan was to undertake an initial assessment of the 15 junctions agreed to be assessed, which include for the key SRN junctions, taking into consideration comments received, to see what impacts occur as a result, to help inform a suitable mitigation strategy.	**BWB**
6	**AOB** a. PW confirmed BWB had reviewed the latest position with regards to the Ratcliffe Power Station Local Development Order and noted that trips are limited, so as not to generate a net increase versus the existing use, over and above which requires further assessment, which includes further modelling at M1 J24. It was also noted that LCC maintained their objection. b. IS asked if there was anything specific we should be made aware of; a meeting date has been sought with Uniper to discuss modelling related matters. CT confirmed that NH had raised concerns that they are also building a VISSIM model to consider impacts of Phases 2 and 3, even if they were advised to use our model. The concern being they may not show the same things. They have used the East Midlands Gateway Model. IS suggested that they will have no doubt built their own model so that they are not beholden to us, but everyone will be keen to see similar outputs achieved even if different models are used. c. DS confirmed that Uniper were concentrating on avoiding the peak	

	hours and hence impact on the SRN, eg shift turnovers missing said periods. The office development would come later and would be more challenging mind. d. PW thanked everyone for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 14 DECEMBER 2023 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Ian Rigby (IR) – Segro
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Catherine Townend (CT) – National Highways (NH)
Steve Freek (SF) – NH
Lisa Guest (LG) – NCityC
Simon White (SW) – Leicester City Council (LCityC)
Alex Gray, Laura Good, Tom Baker and Sonny Tolofari – LCountyC Network Data Intelligence
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM

MINUTES:

Agenda item		Action
1	**Introductions** a. PW introduced each individual within the TWG to IR. IR introduced himself as the Infrastructure Director of SEGRO who will be invovled in the project moving forward. Over the last 10 years, IR has been invovled with a scheme near Northampton at M1J15 for a DCO rail freight terminal, which has about a year left until completion. b. IR gave an update on EMGP2 confirming that SEGRO are looking to proceed with the scheme via the DCO route, which has implications for the TWG on the quantity of work, Statement of Common Grounds etc. but this should be confirmed towards the end of February 2024. Based on experience, having a TWG set up is important to ensuring momentum, so is pleased to see the relationships built to date. The message to the TWG is that there is work going on in the background but from a transport perspective it is 'full steam ahead'. c. PW confirmed that the TWG has worked well over the last circa 18 months and has no doubts that this will continue. d. IR confirmed Imogen has moved to a different role in SEGRO, hence why she is no longer involved. PW also set out the same of Rebecca Henson at LCountyC. e. AA confirmed that SW will be retiring at Xmas hence she will remain the sole point of contact at LCityC.	

2	**2024 meeting schedule** a. PW confirmed his intention is to continue the same approach for meetings within 2024 by having monthly TWG meetings on the second Thursday of each month. b. PW confirmed to IR that DCityC are comfortable being kept abreast of the scheme and copied into key update emails, as now are DCountyC, following initial modelling results being provided from AECOM which show little traffic impacts on their part of the network. c. All attendees confirmed with the 2024 meeting schedule plan. PW to action	**PW**
3	**Review Actions from last meeting in September 2023** a. PW reviewed the meeting minutes from September 2023: i. No programme has been provided because of the land assembly issues but can be provided now we have been instructed on the next stages of work. BWB will work with the Client on this. ii. BWB sent a plan showing the junctions included in the current study area, there are now 17 altogether including the two in NCountyC's network on the A453 near Ratcliffe on Soar. BWB to share this plan with IR. iii. Reflected on the discussion held with regards to the study area may potentially change as a result of the iterative modelling process/mitigation once this has been undertaken, which may even reduce the study area if traffic is drawn back to the SRN. iv. BWB commissioned AECOM to provide the cordoned matrices for the purposes of furnessing the traffic flows for junctions in VISSIM, which has since been received. v. BWB are currently furnessing the traffic flows in line with the agreed methodology set out in the traffic flow furnessing technical note, albeit reviewing the traffic flows on a junction by junction basis. vi. Agreed base VISSIM model was sent to the TWG. vii. Next steps are to understand the impacts of the development at the initial 15 junctions from a capacity point of view in the first instance. b. No responses were received on the previous actions.	**BWB/IR** **BWB**
4	**Review of previous emails from HH and GN** a. PW shared the emails from HH and GN on screen. b. PW confirmed that the modelling scenarios will include: • 2022 *Without* Development AM and PM (Base) • 2025 *Without* Development AM and PM • 2025 *With* Development AM and PM (DfT Circular 01/2022 Opening Year Assessment) • 2035 *Without* development AM and PM • 2035 *With* development AM and PM • 2035 Without development + Isley Woodhouse and EM Freeports AM and PM • 2035 With development + Isley Woodhouse and EM Freeports AM and PM	

	c. The focus will be to understand the impacts of the EMGP2 development first off, but there is a commitment to understanding the impacts of the wider Freeport and Isley Walton schemes that are included in the sensitivity scenario.	
	d. GN confirmed that the 2022 base VISSIM model has been signed off and then asked when the 2025 without and with development scenarios are being derived as these are the key comparisons from a NH perspective.	
	e. GN confirmed that the TWG have not seen the forecast traffic flow matrices. The principle of the methodology has been seen but the detail hasn't been provided, which could be complicated and so GN confirmed he is happy to support BWB on deriving these. PW thanked GN and confirmed that BWB would liaise with GN on this if required and can indeed provide further information in the New Year.	**BWB**
	f. MC confirmed that there are two parts to BWBs current work, the first is the traffic flow furnessing and deriving future forecast flows. BWB are working through this in line with the methodology set out and will be issuing a Technical Note explaining the process and the final traffic flow matrices. However, BWB noted GN's kind offer and will liaise with him directly if required.	
	g. The other part is validating the individual LinSig and Junctions 10 models using the observed traffic flow data. For signal junctions this will be done by comparing the Degree of Saturation (DoS) of all arms with the aim of having modelled vs observed DoS within +/-5%. For priority junctions the validation process will review the queues on each arm with the aim of having them within 2 pcus, again modelled vs observed. So far, 13 of the 15 junctions are validating well and BWB are currently making tweaks to the final two junctions before producing a Technical Note and issuing this to the TWG. This is the next piece of work being completed, hopefully by 22 December 2023, if not, in early January.	**BWB**
	h. GN confirmed the above sounds reasonable and for the details to be issued to the TWG. PW confirmed all details will be shared albeit BWB may have a review of the modelling results ahead of the next TWG to get an initial understanding but reiterated that BWB will be following the agreed procedures.	
	i. IR asked whether a sequence of tasks could be provided to understand what order things are being worked on for the TWG to then plan broad timescales for reviewing etc. PW confirmed that a sequencing schedule can be provided. GN also confirmed that sequencing would be useful.	**BWB**
	j. GN summarised where the current work is at from a NH perspective: i. base VISSIM is agreed	

	ii. the base position with off-site junctions is being worked on by BWB iii. before building the forecast matrices, GN is happy to support BWB. GN reiterated that the matrices are shared before being input to the models to avoid abortive work.	
	k. GN confirmed that for NH purposes, the Circular 01/2022 directs us to 2025 as the opening year and then the forecast focuses on 2035. Developing the sensitivity test forecasts could be tricky as it is likely to be a congested scenario, so GN is committed to working with BWB to derive the traffic flows. PW confirmed BWB will keep everyone updated on the steps but made it clear that BWB/SEGRO are committed to completing the sensitivity test scenario.	
	l. GN asked if there is a timeframe for commissioning AECOM to extract the sensitivity flows within the first quarter of next year. PW confirmed that BWB are working on bitesize chunks and at the moment the focus is on understanding the impacts of the EMGP2 development in the first instance. However, fees have been agreed for AECOM to undertake additional work on the sensitivity testing, but nevertheless BWB are committed to looking at this as it is crucial to understand the capacity of the network at the 'end game' with all wider schemes in place.	
	m. GN thanked PW and confirmed that his feedback to NH will be that the 2035 sensitivity assessment is committed to being undertaken, albeit at a later stage.	
	n. PW summarised the discussions and next steps: i. BWB will consider the sensitivity test discussions. ii. BWB will set out the game plan and sequencing for next steps. iii. First of all, BWB will aim to get back on the junction model validation and initial traffic flow furnessing and side of things. iv. BWB will liaise with AECOM to sense check the information that's outstanding. v. Any discussions on mitigation and sensitivity test assessments are committed to being undertaken. vi. BWB will set out the meetings for 2024 so that these are booked in.	**BWB**
	o. PW asked if anyone had anything to add. GN asked about the sustainable transport strategy being led by SM (ITP) and if this element is still being taken forward at this stage.	
	p. PW confirmed that ITP have done quite a bit of work to date, including having discussions with bus operators and how these would serve the site, supported by dedicated shuttle services, which was documented in previous minutes. ITP are continuing with the Travel Plan side of things following the success at EMGP2, which acts as a great case study for EMGP2.	
	q. GN suggested whether consideration should be given to the level of incentivisation, building on EMGP1 to achieve modal shift. This will be drawn to ITP's attention.	**BWB/ITP**

	r. PW thanked GN and all attendees for their assistance.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 11 JANUARY 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Catherine Townend (CT) – National Highways (NH)
Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Ian Rigby (IR) – Segro
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
George Nock (GN) – Jacobs; NH transport consultant
Steve Freek (SF) – NH
Lisa Guest (LG) – NCityC
Alex Gray, Laura Good, Tom Baker and Sonny Tolofari – LCountyC Network Data Intelligence
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM

MINUTES:

Agenda item		Action
1	**Review of December minutes/actions** a. PW reviewed the December 2023 minutes and actions: i. TWG meetings have been scheduled for 2024. ii. A revised programme has been produced which will be discussed as part of this agenda. iii. BWB issued IR a plan showing the 17 junctions in the study area. iv. BWB are in the process of furnessing the traffic flows so will issue these and the Technical Note once complete. v. The base Junctions 10 and LinSig model validation note was issued on 05/01/24. vi. BWB are committed to the sensitivity test but beforehand are considering the EMGP2 development impacts in isolation. vii. BWB have spoken to AECOM about the additional information and will revert back to IR with their fees. viii. ITP have drafted a Sustainable Transport Strategy and Framework Travel Plan as far as practically possible, which BWB have had sight of and will be incorporating into the Transport Assessment.	
2	**Base Model Validation Note** a. MC summarised the base model validation note, the purpose of which was to demonstrate how the Junctions 10/LinSig models validate against observed surveys: i. This included the initial 15 junctions, excluding the two on the A453	

	near Ratcliffe on Soar under NCountyC's remit at this stage of the process, and the junctions in VISSIM which were included in the base VISSIM note. ii. For the Junctions 10 priority junctions, the validation process compares queue lengths from the surveys against those in the model, with the aim of queues being within 2 pcus on all arms. The results show that observed vs modelled queues are within 2 pcus for all junctions and hence are validating well. iii. For signal junctions in LinSig, the validation process compares the Degree of Saturation (DoS) from the model against the surveys with the aim of having the DoS within 5%, in line with TfL modeling guidelines. iv. Part of the validation process required adjustment of the signal timings particularly where certain junctions have varying cycle times given LinSig models on fixed timings. It also considered lane usage to ensure that traffic flows within each lane mirrored the surveys as closely as possible. v. The results show that DoS on all arms are within 5% of observed values and hence the LinSig models are validating well. b. PW confirmed that BWB would not chase the TWG for comments but would appreciate any feedback at this stage if there are any queries.	**LCountyC/ NH/NCountyC**
3	**Initial Modelling Exercise of EMGP2 Impacts** a. PW confirmed BWB have ran an initial assessment of the LinSig and Junctions 10 models to get an understanding of the EMGP2 impacts. b. MC shared a spreadsheet on screen showing a summary of the initial modelling work: i. The majority of junctions on the A453 to the west of the site (A453/EMA signals to A453/Walton Hill signals) are expected to operate within capacity, except for the A453/The Green priority junction which is exceeding capacity at the 2035 future year in the AM peak. However, it is likely that as part of the wider mitigation at the Strategic Road Network, traffic would be drawn away from this junction. ii. There appears to be capacity issues at A50 Junction 1 however there is a lot of traffic routing through Castle Donington to A50 Junction 1 because of congestion at M1 Junction 24 so this could also change as part of the wider mitigation strategy. iii. Once the traffic flows have been furnessed for the remaining junctions, BWB will complete the modelling and share the findings with the TWG. iv. Overall, the initial findings show that the focus is likely to be on the VISSIM junctions which we've always expected and perhaps A50 Junction 1, but we will revert back when further modelling has been undertaken.	

4	**Programme for 2024** a. PW shared the revised programme on screen which has been updated from the programme shared with the TWG back in 2023. i. The programme keeps a running tab on when key pieces of information were issued and when responses were received from the authorities, which helps provide a reminder on key milestones. It goes right back to when the scoping note was issued and agreeing the EMFM proforma. ii. The base junction validation note has been added onto the completed tasks section and BWB will welcome any comments from the TWG. iii. The upcoming tasks to be completed include the furnessing Technical Note and issue of the matrices, building on the methodology already set out. iv. It also includes understanding initial modelling results for the 17 junctions, preparation of initial mitigation designs for EMGP2 before sharing these with the TWG and them being coded into the EMFM to understand the wider benefits. v. Complete the sensitivity assessment to understand the mitigation needed for the wider freeport and Isley Waltons schemes. b. PW confirmed that BWB have already looked at mitigation at Finger Farm and also have ideas for what can be done at M1 Junction 24 (noting there is less land available) which we will test initially, as this may draw traffic back to the Strategic Road Network and remove the need to look at the local junctions in as much detail. There will be an iterative process in finalising the mitigation to achieve nil detriment from an EMGP2 perspective and also consideration for the wider sensitivity test afterwards. c. PW confirmed that following mitigation being agreed/finalised, BWB would undertake Road Safety Audit and WCHAR associated work. d. PW confirmed that the programme would be shared with the TWG. e. IR provided an update on the Freeport and that the Governments time period has been extended from 2026 to 2031. SEGRO are working with the Freeport to show the progress that has been made and demonstrating that a credible plan is in place. The Freeport plan is due to be submitted in February. f. IR also confirmed that SEGRO are preparing a letter to support a Section 35 Agreement to get permission to go down the DCO route, which is to be submitted by the end of January. There is a 28 day turnaround on a getting a response to the letter, so hopefully we will know where we are heading by the end of February. g. IR confirmed that SEGRO are looking for seed funding to get more power to the site for electric vehicle charging points and should hear back in February on this. Therefore, SEGRO should have a good idea of where the scheme is heading by the end of February.	**BWB** **BWB**

5	**Isley Walton Scoping Opinion** a. PW mentioned that BWB have been sent a copy of the Isley Walton scoping opinion via NWLDC. The scheme comprises a residential mixed-use scheme of: i. 4,250 dwellings. ii. Combined primary and secondary school. iii. 2 new primary schools iv. New local centre v. 2 neighbourhood centres vi. 16 hectares of employment space of 16 hectares vii. Battery plant viii. Green and associated infrastructure b. PW mentioned the Isley Walton timescales are for development to commence in 2027 with first occupation (opening year) in 2029 and completion date of 2049. Many of the authorities in this TWG will no doubt be involved in the Isley Walton TWG. c. PW mentioned that NWLDC are included in the Isley Walton TWG, which hasn't been the case for EMGP2. albeit DG and SS are in regular contact with them but there could be scope to invite NWLDC to future meetings should this be considered beneficial. d. TBe mentioned that NCountyC, NCityC, DCountyC and DCityC transport authorities will be passing responsibility to the new East Midlands County Combined Authority. TBe asked to be kept informed on any updates on Isley Walton, which PW confirmed would be the case. e. PW mentioned that time has passed since the first TWG meeting and as it stands the EMGP2 modelling assesses a 2025 opening year and 2035 future year. There could perhaps be further conversations about the opening/future years in later TWG meetings but in the meantime BWB will continue on the current agreed basis and associated modelling work.	
6	**AoB** a. ACH was pleased to hear that mitigation designs will go through an iterative process. However, the furnessing traffic flow spreadsheets have not yet been issued, so Jacobs will need sight of these before reviewing any mitigation. PW confirmed that these will be issued shortly. b. ACH thanked PW for the validation report and that Jacobs will review this once the final two junctions have been validated. ACH asked for the signal data and model input files in order to carry out a review. PW confirmed that BWB can provide the models and signal data. c. ACH queried the manipulation of the LinSig model validation and whether the discussion on lane usage was to do with removing illegal	**BWB** **BWB**

	movements. MC confirmed that this is the partly case but also confirmed that models have been adjusted where lanes in the same direction are not being equally used to try and reflect the surveys as best as possible. d. PW confirmed that BWB would look at each junction at face value and input the usual geometry and hope that this would reflect the surveys, although this isn't always the case and so the in these instances the models have been adjusted to make sure they represent what takes place on the ground. ACH thanked BWB for their clarification. e. PW thanked the attendees for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8 FEBRUARY 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
George Nock (GN) & Alain Chandler-Hurst (ACH) – Jacobs; NH transport consultant
Ian Rigby (IR) – Segro
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Lisa Guest (LG) – NCityC
Alex Gray, Laura Good, Tom Baker and Sonny Tolofari – LCountyC Network Data Intelligence
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM

MINUTES:

Agenda item		Action
1	**Review of January minutes/actions** a. PW reviewed the January 2024 minutes and actions: i. The base junction validation note was revised on 01.02.24 and issued to TWG. ii. Furnessing technical note and spreadsheets were issued on 05.02.24. iii. The programme was shared with the TWG. iv. BWB will be looking at wider mitigation in due course and re-running this through the strategic model at the appropriate time. v. Signal plan data and model input files have been issued. b. SF mentioned that a consented mitigation scheme is designed at A50J1 involving the signalisation of the Trent Lane arm. c. PW confirmed that BWB is unaware of this scheme and asked for a copy of the drawing. d. SF mentioned that the scheme is still under the Stage 1 RSA stage and so will issue a copy of the current drawing, which are available on the planning portal. The Stage 1 RSA relates to a variation of condition application. e. PW asked if everyone else was comfortable with the January 2024 minutes. f. CT mentioned that in Section 5 of the January 2024 minutes 'Isley Walton Scoping Opinion' it states that the scheme is within the East	**NH**

	Midlands County Combined Authority (EMCCA) area. This is not the case as the scheme is located in Leicestershire who are not part of the EMCCA.	
2	**SEGRO project update** a. IR provided an update on the EMGP2 project. The main three strands of work are: i. Section 35 note has been submitted, which is a request to go down the DCO route. ii. Seed funding application has been submitted to the Freeport. iii. SEGRO are providing support to the Freeport timescales extension. b. All three strands of work should come together by March and so at the next TWG meeting, the strategy should be confirmed.	
3	**Base Junction Model Validation Note** a. PW confirmed BWB issued the note on 01.02.24 which was updated to include the last two junctions on the A453. b. GN confirmed NH have instructed Jacobs on reviewing the note and the junctions on the SRN in particular (7 locations altogether). The aim is to send something to NH for issue next week. There are a few typical comments on certain models relating to saturation flows, lane configuration, signal timing etc. c. GN said with regard to M1J25 there are comments on the supply side, such as how it is coded, free flow lanes, bus stop lanes etc. There will be an exercise for BWB to go through the comments and re-submit the models for sign off. d. PW thanked GN and confirmed BWB would work through the comments when they are issued. e. GN acknowledged the difficulty in BWB sending the video footage because of the size of the file and confirmed that he would be in touch if footage is required of certain arms/time periods. PW confirmed that BWB would aim to assist where possible with supplying video footage and this could involve a Teams call if that is more efficient. f. MC confirmed that from a NH perspective, the junctions in VISSIM have been validated which are more key and closer to the site, whilst M1J5 lies slightly further afield, albeit appreciates a valid model is still required.	**NH** **BWB**
4	**Furnessing Technical Note** a. PW confirmed that the revised furnessing Technical Note and spreadsheets were issued on 05.01.24. BWB have received comments from GN which we can talk through in the meeting.	

	b. MC confirmed that the note was revised to set out the methodology adopted to furness the traffic flows, in line with Option 4 as previously agreed. The junctions in VISSIM were furnessed using cordoned matrices because of differences in the volume of traffic entering vs exiting the network. c. MC confirmed that BWB have now received new matrices from the EMFM from AECOM including the 2025 PM peak hour scenario where anomalies were previously identified. However, there are very minor differences in the flows across all scenarios from the original issued information because of the way the model works when extracting information but it is limited to a few PCUs so BWB will set this out and compare, rather than re-running the numbers through VISSIM as the differences would not affect the results. BWB will therefore re-issue the latest spreadsheets. d. MC thanked GN for his comments and confirmed that BWB will work through these. They appear to be more on technicalities rather than comments that will significantly change the numbers. e. GN agreed and asked for a final check on mathematics and for labels to be added to clarify things where needed. The labelling convention should be consistent i.e. 1, 2, 3 vs A, B, C. The first review undertaken was on the technicalities and once NH are happy with that a more thorough review on the demand side will be undertaken. f. ACH confirmed that Jacobs do not expect traffic flows to materially change form the comments raised but want to double check this once the changes have been made to the spreadsheets. There was an F to F movement in the spreadsheet that needs checking. MC confirmed that this has been checked and the 0 movement is correct. g. GN asked if the spreadsheets will be revised to the TWG once changes have been made. PW confirmed that everything will be reissued to all.	**BWB** **BWB**
5	**Initial Modelling Summary** a. PW mentioned that BWB have undertaken an initial modelling exercise of EMGP2 in isolation to get an initial understanding of where impacts are likely to occur and where mitigation may need to be focused. b. MC confirmed that modelling has been undertaken with the current furnessed flows, which may change, but provides a guide at this stage. c. MC shared the modelling summary spreadsheet for both 2025/35 future years during both the AM and PM peak hours. The initial results are identifying impacts triggered by EMGP2 at: i. M1J24 ii. EMGP1 signals iii. Finger Farm iv. A50J1	

v. A453/The Green priority junction (leading to Diseworth)

d. MC mentioned that capacity problems are identified at M1J25 but there are no impacts from EMGP2 and the performance actually improves in that scenario, possibly due to background traffic re-distribution.

e. MC confirmed that mitigation will therefore be focused on the above five junctions initially where the designs can be coded into the EMFM to understand the wider benefits and whether traffic re-routing through villages is drawn back to the SRN. BWB have been instructed to look at mitigation between now and the end of March/start of April.

f. PW confirmed there is logic in what the findings are showing and the locations where mitigation is needed. BWB have ideas of what mitigation can be delivered:

i. BWB have options designed at Finger Farm
ii. EMGP1 signals might be more minor and limited to MOVA adjustments.
Iii. M1J24 has less public highway available but BWB have ideas for mitigation, so we will make a start testing things to refer back next month with headline updates/suggestions.
iv. BWB can also take on board SF comments with regard to A50J1 and there is also scope to signalise the A453/The Green junction if needed.

g. CT confirmed NH are looking forward to what can be done at M1J24. She asked whether BWB are aware of the scheme being proposed as part of the Ratcliffe on Soar LDO, albeit there are concerns with the mitigation. PW confirmed that BWB are aware and will review this and build on it where possible.

h. GN confirmed that as a guide the initial results are useful. The strategic model showed high levels of re-distribution of light vehicles away from the SRN, hence the principle of where mitigation is being focused aligns with results of strategic modelling.

i. GN confirmed that the base models will however need amending first of all as this could change the base position for some of the junctions. In terms of VISSIM modelling, clarification will be needed as to how the matrices have been developed and NH can then review this.

j. GN suggested that caution is given the models where they are operating well over 100% and so the review will be focusing on queue lengths, delays, journey times etc. to understand whether they are material and if there is storage space to accommodate the expected levels of congestion.

k. GN asked that before BWB go too far with modelling, if NH could see the VISSIM modelling to ensure that abortive work is not undertaken. PW confirmed that BWB would continue liaising with the TWG and

	sharing information to make sure we work collaboratively as it will only provide benefit further down the line. l. TBe confirmed that NCityC's main concerns relate to capacity at M1J25 and the parallel routes on the A453, A52 and A50 where drivers may switch between routes to avoid congestion. If there is congestion on the M1, then this will spill back onto more local roads towards Nottingham and Derby. m. PW acknowledged TBe concerns and understands that rat-running through villages is expected to occur as shown in strategic modelling. However, BWB do not consider that EMGP2 is causing a significant impact at M1J25, albeit this may not be the case when we assess the impacts cumulatively with the other sensitivity schemes. n. TBe suggested whether bus priority could be introduced as part of the mitigation to ensure that bus routes aren't impacted by the congestion. PW confirmed that various options can be looked at. o. GN mentioned that in previous meetings discussions were held about a sustainable transport strategy. PW confirmed that ITP are leading on the Sustainable Transport Strategy and Travel Plan on the back of the success from EMG Phase 1, so BWB are working in tandem with them. SM of ITP will be joining back in the meetings from March 2024, however the Travel Plan and Sustainable Transport Strategy are drafted, which remains a key part of the mitigation strategy. p. GN asked whether details of the Sustainable Transport Strategy can be shared now, as this is front and centre of the overall strategy. PW confirmed that BWB would liaise with SEGRO to understand the status of these document and whether they can be shared. q. MC asked whether BWB should be looking at the benefits of the Travel Plan and Sustainable Transport Strategy on reducing traffic and whether this should be taken into account in the modelling and subsequent mitigation. r. GN confirmed that his comments were more from a national policy perspective and that whilst he is pleased to see that physical mitigation is being delivered, this is in parallel to a Sustainable Transport Strategy.	**BWB**
6	**NWLDC Local Plan** a. PW gave an update on the NWLDC Local Plan as it is directly related to the sensitivity testing that BWB have committed to undertake. b. PW confirmed IR went to a meeting with the Freeport and AECOM on 12.01.24 and AECOM have been commissioned to undertake strategic modelling on behalf of NWLDC to assess the Local Plan. BWB understand they are looking at 2041 and 2051 with full scale of Freeport and Isley Walton sites. There is then focus on looking at	

	mitigation on the SRN. c. PW confirmed that given the slight delay with the EMGP2 application due to the land ownership issues, work has been undertaken elsewhere. NWLDC are looking at May/June 2024 timescales for their findings, which can then be compared with BWB's on behalf of EMGP2. Hence, it could distance BWB from potentially doing the sensitivity work. However, BWB will keep liaising with IR to understand progress on this. d. CT suggested there could be two pieces of work as the NWLDC Local Plan excludes the Freeport sites at Ratcliffe on Soar as it is in a different local authority area. The second piece could be looking specifically at the Freeports but this would be outside the Local Plan work. e. GN queried PW comments on how this could distance BWB from the sensitivity test. f. PW responded saying that if the work is being undertaken elsewhere and NWLDC are potentially taking ownership of testing the wider Freeport and Isley Walton sites then the work will be done separately, hence no point doubling up, however if this is not the case, then BWB can still undertake this and would be happy to do so. g. GN asked about timescales for receiving the sensitivity test scenario results from BWB h. PW confirmed that BWB have received the strategic modelling results for the sensitivity test from AECOM which has been shared with the TWG. In terms of detailed modelling, BWB haven't gone into as much detail yet, so will share this once it is available after testing the impacts of EMGP2. BWB have been looking at this initially to advise SEGRO on the impacts of EMGP2 in isolation before then considering the sensitivity assessment. i. GN asked whether BWB are still committed to running the sensitivity test scenario through the VISSIM model and feeding the results back to the TWG. j. PW confirmed yes, albeit BWB have not had fees agreed to do that work yet because we're working on a phased approach. If the work undertaken by NWLDC does not cover all the sites we need to look at from the Freeport, then BWB will undertake this. k. GN summarised his thoughts in that he understands BWB may draw on other resources where possible to understand the wider impacts of the sensitivity test, however if this is limited then BWB would undertake this work. PW agreed that this is correct as the authorities will need the answers to the wider sensitivity assessment to make the conclusions on the EMGP2 development. l. PW thanked everyone for their time and closed the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 14 MARCH 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Harry Horsley (HH) – Leicestershire County Council (LCountyC); for part
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
George Nock (GN), Alain Chandler-Hurst (ACH) & Fiona Ahmed (FA) – Jacobs; NH transport consultant
Paul Wilson (PW) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultant

APOLOGIES/ALSO ISSUED TO:
Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Alex Gray, Laura Good and Sonny Tolofari – LCountyC Network Data Intelligence
Ian Rigby (IR) – Segro
Jon Parker (JP) & Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM
Matt Corner (MC) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Introduction** a. FA introduced herself who works at Jacobs and will be supporting GN on the project.	
2	**Review of February 2024 Meeting Minutes** a. PW went through the February 2024 meeting minutes: i. A50 Junction 1 consented mitigation scheme has been received from NH. SF mentioned that it includes the signalisation of the Tamworth Road arm as well as the Trent Lane arm. PW confirmed that BWB would pick this up. ii. PW thanked GN for his comments on the base junction models, which BWB have been working on. BWB will come back to GN on those comments shortly. iii. PW confirmed that the Sustainable Transport Strategy has been drafted internally by ITP. The document is not ready to be issued yet but lots of work has been undertaken, which BWB will be feeding into. b. PW asked if anyone had any further comments on the February 2024 minutes. No further comments were received hence they are agreed.	**BWB**

3	**Latest Position from SEGRO** a. PW confirmed IR is on leave but caught up with him prior. SEGRO has received confirmation that the project can go down the Development Consent Order (DCO) route and is waiting on seed funding for the application. The wider Freeport project timescales are also hopefully to be extended. b. The draft NWLDC Local Plan has been issued which includes the EMGP2 site. Segro support said plan.	
4	**NWLDC Local Plan Modelling Work** a. PW reiterated that wider modelling work is being undertaken by AECOM on behalf of NWLDC as part of the Local Plan, which includes all the Freeport site and Isley Walton. BWB will seek an update on progress on this modelling work via Ian, to ensure that work is not being doubled up, but BWB are willing to assist with the sensitivity testing as previous proposed if that is ultimately still required at the appropriate point. b. PW confirmed that letters have been received from SEGRO between Ruth Jones (MP for Rushcliffe) and Guy Opperman (MP and Minister for Roads and Local Transport) enquiring about upgrading M1 Junction 24 using redirected funds from HS2. The letter confirms that: *"National Highways have agreed to work closely with the East Midlands development company to provide technical advice and assurance on the proposals. Discussions have already begun to ensure a robust Transport Assessment is provided including understanding the impacts of the proposals on the strategic road network in order for National Highways to ensure its continued safe and efficient operation"* c. PW summarised that from discussions held with SEGRO, further work is being undertaken from a modelling perspective to understand the impacts of the wider Freeport and Isley Walton schemes and BWB will continue to receive feedback on this work to ensure that the sensitivity assessment is being undertaken one way or another.	**BWB/IR**
5	**Modelling Validation Note** a. PW thanked GN for providing BWB with comments on the base model validation note. b. VD confirmed that BWB have reviewed GN's comments and have subsequently included additional detail highlighting any assumptions made on the base models. c. VD said in terms of furnessing the flows for the VISSIM model it was noticed that movements between A50 and M1 North were currently included in the furnessing spreadsheet but excluded from VISSIM and	

	so these movements have been removed from the furnessing spreadsheet to avoid overestimating flows. d. VD confirmed that some movements travelling southbound on the M1 to the A50 are using Junction 24 instead of Junction 24A. Hence, BWB's intention is to retain what was observed in the surveys and exclude the additional flows from that movement, on the assumption that the majority of vehicles would use Junction 24A instead. e. ACH agreed this sounds reasonable but if this could be sent in writing. VD confirmed that the revised information will be issued, setting out any assumptions. f. GN also confirmed this sounds reasonable. GN asked for clarification as to what information will be sent. VD confirmed that the re-furnessed spreadsheets will be sent within the next few working days *(subsequently issued on Monday 18/3/24)*. g. GN asked whether the LinSig and Junctions 10 base model comments have been looked at. VD confirmed that BWB have gone through all comments and are creating an Excel tracker explaining how each comment has been addressed. The Technical Note will also be updated with these details. h. GN asked if the Excel tracker could be sent with an additional column for GN to add comments to and when this tracker will be issued. VD suggested that the tracker will be sent early next week latest with a column for GN comments as well as the revised furnessed flows and base LinSig and Junctions 10 models. i. PW thanked Jacobs for their comments and confirmed that BWB will send through all the information to hopefully reach an agreement on the furnessing methodology and base models.	**BWB** **BWB**
6	**AOB** a. GN reverted back to the sensitivity test and clarified the planning requirements ask for an assessment of the impacts of the proposed development . This is against the relative backdrop from any changes at the with development scenario. The other Freeport and Isley Walton sites would represent the 'reference case' and then the comparative case would be the 'do something' which includes the EMGP2 development on top. The expectation is for the residual cumulative impacts to be mitigated against this backdrop against which the EMGP2 development can be assessed. b. PW confirmed that he sees the process as being step by step as BWB are interested in understanding the impacts of the EMGP2 development but appreciate the wider need to understand the mitigation requirements with all planned development in place. GN confirmed that he is interested in understanding the impacts of the EMGP2 development in isolation and appreciates the	

	sequential process of testing the wider planned growth. c. GN asked whether we are likely to be in a position over the next few weeks to start looking at the impacts and mitigation. PW confirmed that BWB's current position is to understand the impacts and mitigation requirements for EMGP2 and then summarise this within a Technical Note to circulate to the TWG. d. GN confirmed that this would give us a theoretical understanding only given base models have not been signed off and the building of VISSIM forecasting still needs agreeing. However, GN appreciates the step-by-step process. e. PW asked if anyone has AOB. No further comments received, so PW thanked everyone and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 11 APRIL 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Harry Horsley (HH) – Leicestershire County Council (LCountyC); for part
Catherine Townend (CT) – National Highways (NH)
George Nock (GN), Alain Chandler-Hurst (ACH) & Fiona Ahmed (FA) – Jacobs; NH transport consultant
Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultant

APOLOGIES/ALSO ISSUED TO:
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Kit Tang (KT) & Clare Norris (CN) – AECOM
Paul Wilson (PW) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Review of March 2024 Meeting Minutes** a. MC went through the March 2024 meeting minutes: i. GN sent comments on the base Junctions 10/Linsig models, which VD has actioned and re-issued on 5 April 2024. ii. BWB are still in discussion with Segro on the wider transport modelling and it appears further modeling is being undertaken by the Freeport and Midlands Connect. iii. Jacobs query has been clarified regarding the movement from M1 north to A50 using Junction 24 instead of Junction 24a. iv. An Excel tracker has been sent to Jacobs with amendments to the base junction models. b. MC presented the comments received from GN on the March 2024 minutes confirming BWB have no concerns with the changes but asked for clarification as to what the base position is for BWB to then assess the impacts of EMG2 against i.e. 2035 without development, or 2035 without development sensitivity (including Freeport and Isley Walton). c. GN referred to minutes on 10th November 2023 and the scenarios that BWB agreed to undertake, which include: i. Base ii. Opening year	

iii. Future year forecast
iv. Additional scenarios including 2035 Freeport and Isley Walton (without development)
v. Additional scenarios including 2035 Freeport and Isley Walton (with development)

d. GN said that this was the agreed position and reflected in the programme on 11th January 2024. GN asked if BWB are committed to the programme.

e. MC confirmed that BWB are committed to undertaking the above scenarios. The EMFM has already been run for scenario v. however not iv. The focus at the moment has been on EMG2 impacts but BWB will be commissioning this final modelling scenario run.

f. MC mentioned that a key part of the DCO process is fixing the red line, which includes all off-site highway mitigation. At the moment, mitigation is being considered to address significant impacts triggered by EMG2 on top of the 2025/35 without development scenario, however, questioned whether mitigation should be considered where significant impacts of EMG2 are identified on top of the 2035 sensitivity assessment (without development) scenario.

g. GN deferred to the local highway authority. HH questioned why the additional sensitivity scenario (excluding EMG2) has not been commissioned yet as it was requested in summer 2023, given the Freeports are emerging. It is a scenario that is required for the authorities to assess the impacts.

h. MC confirmed this is because of how BWB have been commissioned but also because of the delay in submitting the application noting that the opening year of 2025 is next year so conscious that the opening year/future year may need extending. However, as the Freeport and Isley Walton schemes aren't committed, MC questioned whether this would meet TAG requirements?

i. HH confirmed that the Freeport sites are designations and the NWLDC Reg 18 identifies these as future growth aspirations and so have formal status. This also includes the Castle Donington residential development and so all of these need to be considered in line with the NPPF. If a cumulative delivery strategy is identified to accommodate the planned growth then this would be welcomed by LCountyC.

j. MC acknowledged HH comments and confirmed that BWB would be considering EMG2 impacts over and above the base position, whichever that is.

k. HH confirmed that future infrastructure needs identifying to accommodate the planned growth in the area. BWB would then consider the proportionate impact of the EMG2 development, noting it is a smaller scheme compared to the other developments.

	l. GN suggested that the process BWB are taking is useful. We need to make sure a meaningful output is obtained. The current scenarios being undertaken builds up this profile and the TWG feed into the process. In terms of the 2025 opening year, which may need shifting to 2026/27 for example, BWB would need to consider the additional growth during this period. It doesn't mean the modelling needs re-running, however a critical approach to understanding the difference in the base position is needed. This is something that the TWG can assist with. m. MC confirmed that BWB would need to check the uncertainty log to understand what schemes would be included in the higher opening year/future year and whether this is material or if the difference is small. GN agreed this is correct. n. GN asked whether the above confirms the core scenario. MC confirmed BWB would liaise with Segro and the team on the outstanding modelling scenario. BWB will continue working on the initial mitigation strategy with the aim of finalising this by the end of April. o. GN mentioned that in terms of wider modelling, at this stage there are a lot of unknowns about who is doing this, what schemes are included etc. and so BWB would not want to be reliant on that being undertaken correctly, hence the above scenarios give BWB control.	**BWB** **BWB**
2	**Revised traffic flow furnessing spreadsheets.** a. MC summarised the current position; BWB received initial comments from GN on the furnessing spreadsheets at the beginning of February 2024 and BWB issued revised spreadsheets at the end of February 2024. The latest comments received from GN were in April 2024 querying high growth for certain turning movements, particularly at M1 Junction 25. b. VD confirmed that GN comments related to the standalone junction furnessing spreadsheets. The query related to significant growth in turning movements at M1J25. This appears to be a result of the forecast year without development scenario and hence by the introduction of committed developments. c. GN confirmed that generally Jacobs are content with the furnessing methodology adopted and the derived forecast traffic flows. However, advised for BWB to be critical of any significant changes in flows and to be mindful of this when running the models. d. VD confirmed that BWB will review the outputs and justify any potential re-routing issues. e. GN agreed with the above and suggested this is particularly crucial for the Linsig models. f. MC asked whether the furnessed traffic flows for the junctions in VISSIM are acceptable.	

	g. ACH confirmed that with the clarification received regarding the M1 to A50 movements at M1 Junction 24, Jacobs are happy with the furnessed flows. Hence, these are now agreed.	
3	**Revised base model validation note** a. MC summarised the current position; BWB issued base models in early 2024 and comments were received from GN in mid-February which have been updated and re-issued on 5 April. MC asked whether GN has reviewed the models and BWB's comments within the excel tracker. b. GN confirmed that Jacobs have downloaded the base models and have been instructed by NH to review them. c. MC mentioned that with the base VISSIM model being agreed, BWB can focus on the initial mitigation strategy for the junctions within this part of the network. Once BWB receive comments on the base Junctions 10/Linsig models BWB can then expand on the mitigation strategy. d. GN expects to have comments on the base models before the May TWG meeting. GN also asked if BWB would be presenting the modelling results to the TWG. e. MC confirmed that BWB will be combining the initial modelling results and mitigation strategy within a Technical Note that can be shared with the TWG. The aim is to share this internally to the Client by the end of April before it is shared with the TWG.	**Jacobs** **BWB**
4	**Next steps** a. MC summarised the next steps: i. GN to review the base junctions models. ii. BWB to continue working through the modelling and initial mitigation strategy for the EMG2 scenario. iii. BWB to liaise with Segro/AECOM about running the additional sensitivity test scenario that excludes EMG2. iv. BWB to review the revised opening and future years and the significance of any changes.	**GN** **BWB** **BWB** **BWB**
5	**AOB** a. MC mentioned that the focus of recent TWG meetings has been on the Transport Assessment, however BWB are starting to gear up with the transport ES Chapter. This will start with the sifting criteria to agree the study area, taking a critical approach to this. BWB can set out an initial methodology for the sifting criteria and share this with the TWG for agreement before agreeing the study area. b. VD expanded on the above confirming BWB would start with setting	

	out the criteria for the ES study area sifting process. c. GN confirmed that there are different regulations guiding the ES, but it is good to see that these things are now being considered. GN reiterated that a critical item is the outstanding modelling scenario run for the sensitivity assessment and for this to be commissioned sooner rather than later. d. MC confirmed BWB would take this action away and remain with the 2025 opening year and 2035 future year as a direct comparison. In terms of the quantum of development included for the Freeport and Isley Walton schemes this has been agreed so it will be a case of simply removing EMG2 from this scenario. e. HH confirmed that this is correct, however the modeling might not include the NWLDC Reg 18 growth and therefore this needs considering within any re-runs. f. MC confirmed that the model currently includes all of the Freeport schemes and part of the Isley Walton scheme that is expected to be built by 2035 (circa 1,000 homes plus some employment/education development). g. HH confirmed this is fine, however the Castle Donington scheme in particular that is included in the Reg 18 might not be included which comprises 1,000 dwellings. As the forecast years have not been run as agreed, it is reasonable for this site to be considered and a rationale provided one way or another. The best way to check is to review the uncertainty log and compare this to the Reg 18 document to identify what is missing from what could come forward through the NWLDC Local Plan process. h. VD suggested whether the additional Reg 18 developments could be manually added on to the base scenario. i. HH advised that this may not be suitable based on the quantum of development but that it is an iterative case as to what developments are not included and then consideration as to whether models need re-running, in discussion with NWLDC. j. GN agreed and that discussions should be held with the TWG and AECOM to understand what sites are excluded from the uncertainty log and then consider the significance of this and how any differences are dealt with in the modelling. MC confirmed that BWB will take this away as an action. k. MC thanked everyone for their time and ended the meeting.	**BWB** **BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 9 MAY 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Daniel Sullivan (DS) & Tom Boylan (TB) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Catherine Townend (CT) – National Highways (NH)
George Nock (GN), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Paul Wilson (PW), Simon Hilditch (SH), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Steve Freek (SF) – National Highways (NH)
Alex Gray, Laura Good and Sonny Tolofari – LCountyC Network Data Intelligence
Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Kit Tang (KT) & Clare Norris (CN) – AECOM
Alain Chandler-Hurst – Jacobs

MINUTES:

Agenda item		Action
1	**Review of April 2024 Meeting Minutes** a. GN introduced FA who is part of the Jacobs team and also JB, who is a specialist consultant working on behalf of Jacobs for National Highways. Both will be strong contributors throughout the DCO process. b. PW thanked GN and confirmed that JB will be added to the mailing list and meeting invites moving forward. c. PW introduced SH who is Director of the Transport and Infrastructure Design team at BWB overseeing highway design related matters. SH had significant input on EMG1 and in particular the design of the off-site highway improvements in the area, who will be joining the TWG meetings moving forward and to be added to the mailing list/meeting invites. d. PW went through actions from the April 2024 meeting minutes: i. Discussions have since been held on the assessment years and uncertainty log information, which will be discussed in today's meeting. ii. The initial EMG2 modelling and mitigation work has been carried out and will be shared in today's meeting. iii. GN issued further comments on the base junction models, which BWB are working through.	**PW** **PW**

	e. PW highlighted one final amendment to the April 2024 minutes, where reference is made to a '2025' future year, rather than '2035', which will therefore be updated. f. PW asked if there were any further comments on the April 2024 minutes. No further comments received, hence the revised version will be issued.	**BWB**
2	**Client project update** a. IR confirmed that a full project design team launch meeting is scheduled for Wednesday 15 May 2024. BWB will be key to determining timeframes, which are currently being dictated by the Freeport and have already been extended from 2026 to 2031, hence Segro need to build out as much as possible during that time. The programme shows that statutory consultation is being aimed for September/October 2024 with the DCO submission in February 2025. The meeting on Wednesday is to ensure that all disciplines are aligned and that information will be available to tie the programme together. Therefore, the TWG is instrumental in allowing that process to happen and ensure that when we reach examination, Statement of Common Grounds are aligned. b. JB thanked IR but suggested that timescales will be challenging particularly when accounting for time to review outputs. JB asked who is project managing the DCO application. IR confirmed that he is project manager. Throughout past DCO's, Sego have not commissioned external project managers. c. IR set out that SH has a lot of DCO experience and so will help with that process. SH agreed that BWB will be the engineering interface between the lawyers and Sego as the Client. d. FA picked up on the timescales for the statutory consultation and how this aligns with BWB's programme (which currently excludes statutory consultations). Will a Transport Assessment therefore be delivered after the consultation and if so, what information will be available? e. IR suggested that not all information will be available, nor should it be required, but sufficient information should be available for the purposes of hosting a productive consultation event. f. PW confirmed that BWB have been drafting the Transport Assessment during the pre-application process but won't have a complete draft available for the consultation. However, as to be discussed later in the meeting, BWB should have a good understanding of the modelling work and highway mitigation before the consultation. There will be a series of notes, discussions and agreements between now and then, so we are confident where we are heading from a mitigation perspective to allow us to sufficiently consult. A first note on the 'pure' EMG2 mitigation is to be issued imminently. g. PW confirmed that BWB would add the consultation into the	**BWB**

	programme.	
3	**Base model position** a. PW confirmed that BWB have received further comments from GN on the base junction models. BWB will be working through those and issue revised models with an updated tracker/report to GN shortly. b. VD suggested that revised information should be available next week. GN suggested that BWB revise the models and tracker and issue those for agreement prior to updating the Technical Note for expediency and in case there are any further comments. GN asked whether they could be issued early w/c 13th May 2025, which VD agreed to.	**BWB**
4	**Update on current commission re 'pure' EMG2 impacts and associated mitigation** a. PW provided an update and confirmed that whilst initial mitigation has been considered for the EMG2 impacts in isolation, there is still an importance for a coherent Sustainable Transport Strategy to be at the forefront of any final mitigation and SM at ITP, who is leading on this aspect, will be re-joining the TWG meetings moving forward. We are currently proposing a new bus interchange and a new pedestrian/cycle link on the A453 between EMG1 and EMG2, for example, as well as other infrastructure improvements. b. PW said that in the meantime, mitigation has been considered for the 2035 future year whereby EMG2 traffic has been manually added onto the without development scenario to avoid background traffic reassigning away from congested areas, to show a true and worst-case understanding of the impacts. c. PW mentioned that the mitigation schemes are merely a starting point and BWB appreciate that further work is required to look at the sensitivity assessment which would include for a much higher volume of traffic within the study area. d. PW reminded the TWG that 17 junctions are currently included in the study area, of which 5 were originally expected to require mitigation, including A50 Junction 1. Since receiving information from SF on the committed improvement scheme at A50 Junction 1, capacity has improved at said junction, meaning BWB are of the opinion that this junction can be excluded from further mitigation as part of this exercise at this stage of the process. e. PW shared general arrangement drawings of mitigation schemes on his screen and VD summarised the details: i. A453/The Green priority junction would be signalised. Further consideration is required of forward visibility because of level differences along the carriageway.	

	ii. A453/EMG1 gyratory requires two lanes for right turning movements into EMG1 from A453 north to limit queues on the circulatory. iii. At Finger Farm, partial signalisation of the junction is proposed, with the M1 northbound Slip and A453 western arm and their respective adjacent circulatory carriageway to be signalised. The M1 northbound slip would be widened to 4 lanes on the approach to the junction, and the A453 northern exit is proposed to be widened to three lanes which subsequently merges into two lanes to tie in with existing highway arrangements. The western circulatory carriageway will be widened to four lanes prior to A453 western exit and three lanes adjacent to A453 approach to the junction. In addition, the EM point scheme has been included for in the mitigation design. There are also further opportunities to increase capacity by providing a segregated left turn lane, if ultimately required. f. SH asked NH whether they could provide an update on the status of the EM point scheme and timescales for building the access. CT agreed to provide this. g. In terms of M1 Junction 24, VD summarised the current proposed mitigation scheme: i. The VISSIM model shows lots of weaving between the A50 and M1 southbound merge on approach to the gyratory . Therefore, the carriageway has been widened from the A50 diverge and joining with the M1 merge to three lanes all the way along the A50 approach. ii. Lane markings have been reallocated along Remembrance Way (eastern approach) to balance flows towards M1 and A50 across three lanes. iii. The M1 northbound off-slip flare has been extended to provide more vehicle stacking capacity. The circulatory has been widened at the western side of the gyratory to provide more lanes towards the M1 north. iv. Lanes on the A453 northbound approach have been reallocated to allow for two lanes heading onto the M1 northbound. v. The A50 exit slip has been widened to have a longer distance of three lanes before merging back to two lanes (circa 150m to 200m). h. VD reiterated that the mitigation described above could accommodate development traffic manually added onto the 2035 without development scenario as a worst-case. i. PW confirmed that these drawings will be included in a Technical Note that can be shared with the TWG. Whilst more work is still required for the sensitivity assessment, the next key steps are to agree the details for the revised modelling, following which the above mitigation can	**NH** **BWB**

	be re-checked to understand whether it would cause any changes.	
5	**Updated programme** a. PW presented the programme on screen. This now includes the base junction models and we have a strategy to finalise those with GN. b. PW summarised key steps of the programme. j. The initial modelling of 17 junctions has now completed from a BWB perspective with the report to be issued to the TWG shortly. ii. A key step is to agree the modelling requirements for any revised strategic modelling. This is to account for a delay to the planning application and increasing the 2025 opening year/2035 future year. iii. The modelling sensitivity assessment then needs looking at and the wider mitigation to accommodate these schemes and what level of mitigation will be tied to EMG2. iv. Other key areas of ES chapter, HGV routing strategies, Construction Traffic Management, WCHAR, RSA and completing formal reports, SoCG etc. in preparation of the DCO submission. c. PW confirmed that BWB have a meeting scheduled for Thursday 16 May with LCC NDI team/AECOM to discuss the revised modelling and the uncertainty log changes etc. d. CT mentioned that in terms of mitigation on the SRN, the process has recently been updated and so any schemes need to be designed to more detail in accordance with the preliminary design standard in DMRB. NH has a guide that can be provided. Any departures from standard should be identified on the drawings and Approval in Principle(s) will be required prior to planning being granted, which typically take 4 months to process. e. SH thanked CT and confirmed that BWB have worked through these processes in the past, including for EMG1. Fundamentally, if there is mitigation that Segro will be delivering, we need to understand boundaries, earthworks, geometry, visibility, signage etc. and anything that dictates red lines and order limits for the DCO. BWB will produce Technical Notes setting out what BWB will be providing in terms of detail for the DCO and if there is a need for investigation to confirm the viability/deliverability of the schemes or AiPs for structures etc. BWB will prepare a first draft of that report. f. JB commented on the programme and that it looks as though September/October 2024 could be busy with lots of activity being undertaken around that time near the consultation. Therefore, it would be useful to have a more 'granular', week-by-week programme, including time for reviews and meeting dates to help plan resourcing. PW confirmed this could be provided at the appropriate time. g. GN pointed out that timescales will also be dependent on third parties	**BWB** **BWB** **BWB**

	providing information, such as AECOM on the modeling side of things and hence to be mindful of this. GN asked whether the EMG2 mitigation designs are for 'information only'. PW suggested they can only really be for information only at this stage of the process because the modeling will need to be updated with the latest EMFM outputs and so the schemes may change. The schemes will not be sufficient in accommodating the sensitivity test assessments. GN raised concerns that the previous forecasting will be superseded and developing mitigation on that basis is abortive work. h. GN reiterated that base models have not been agreed yet, although notes these will be received from VD. On the forecasting element the TWG have not seen this yet. PW confirmed BWB can provide the information however it builds on previous agreements made (VISSIM base model, furnessing methodology etc.).	
6	**Assessment years (2029 opening and 2039 future)** a. PW mentioned that with the passage of time since the TWG began, BWB have been reconsidering the opening and future years. This has now been confirmed as 2029, with a revised future year of 2039. BWB have been reviewing the uncertainty log and it appears that most of the information will remain unchanged, however there are certain schemes that may now need including. b. PW asked whether it is a fair assumption for BWB to update the assessment years? c. GN suggested that given it is a shift of four years the uncertainty log will no doubt need revising, however the methodology for furnessing traffic flows etc. has been agreed. GN suggested that the methodology will be to update the EMFM proforma with NDI for agreement with the TWG before commissioning the modelling. d. PW confirmed that BWB would provide an update following the meeting with LCC NDI and AECOM on Thursday 16 May 2024. What BWB are already aware of is that the Park Lane, Castle Donington scheme, is now a draft allocation in the NWLDC Local Plan and needs to be included in the sensitivity assessment. Furthermore, whilst we agreed a quantum of development to be assessed for Isley Walton, this may need amending to account for the higher 2039 future year. e. PW confirmed that BWB have checked with Delta Planning and with the exception of those two schemes, there do not appear to be too many other changes required, but this will be confirmed with LCC NDI and AECOM. AECOM have agreed to liaise with NWLDC and get an agreement to use available planning data for any additional schemes and check in on other schemes such as the 'Newlands', Mercia Park Phase 2 and A50 Junction 1 signalisation scheme (which BWB understand are already included). f. GN agreed with the approach of meeting LCC NDI and AECOM, but	**BWB**

	asked that the TWG are provided with the assumptions to be included in the forecasting and copies of the uncertainty log. PW confirmed that this information will be provided and is the best way to agree the details before commissioning the modelling. g. GN asked whether preference is for comments to be received on the revised inputs (modelling uncertainty log etc.) or the high-level mitigation schemes to be issued. PW confirmed that the priority should be given to the modelling inputs to allow AECOM to be commissioned swiftly.	
7	**Vision and Validate** a. IR provided a summary of a recent meeting with LCountyC and confirmed that 'vision and validate' came about at an event Kate Bedson (Segro) attended whilst speaking to Ann Carruthers (Director of Environment and Transport at LCountyC) who was keen to see vision and validate implemented at EMG2. Segro are keen to have a detailed Sustainable Transport Strategy and Travel Plan, following the success at EMG1, to provide evidence that seeks to reduce the amount of traffic and how this changes the physical highway mitigation required. b. PW reiterated that the EMG2 Transport Assessment currently adopts the original agreed EMG1 Transport Assessment trip rates for 0800 to 0900 and 1700 to 1800 hours (to match the hours considered in EMFM), which were higher compared to more recent TRICS data. The information provided by ITP of traffic surveys at EMG1 showed that the actual trip rates are circa half of what we are assessing, which is due to the success of the Sustainable Transport Strategy and Travel Plan. Whilst LCountyC would still like to see the worst-case trip rates assessed, BWB could run a separate scenario with reduced trip rates that mirror those recorded from EMG1 assuming there will be similar success at EMG2. c. GN agreed with PW and that the DfT position recommends vision and validate. However, a monitor and manage strategy is required along with a strategy for harnessing the Active Travel and public transport strategy, with input from ITP. d. PW agreed that the vision needs to align with the Travel Plan and Sustainable Transport Strategy which would then be monitored and managed appropriately. There is no reason why the success achieved at EMG1 cannot be replicated at EMG2. GN agreed and suggested that there could even be further improvements given the data and knowledge we have. e. SH mentioned that the Sustainable Transport Strategy is fundamental and to be delivered from the outset. However, there could in effect be two mitigation options; the first to accommodate the worst-case trips, and a second assuming that the Travel Plan benefits work. BWB confirmed that they would liaise with the lawyers about how this is	**BWB**

	dealt with legally through the DCO, however there will be options, including the potential to secure funds through a S106.	
8	**Next steps/AoB** a. PW set out the next steps, the key being to agree the revised EMFM proforma, uncertainty log etc. for the revised modelling work required because of the passage of time. b. PW suggested if EMG2 is operational by 2032, for example, would an interim mitigation scheme be needed to accommodate EMG2? Consideration would then be given to determining whether any further mitigation above that could be proportioned between all the sites within the sensitivity assessment. There will be a significant amount of traffic that needs considering, noting BWB will be looking at the difference with EMG2 on top, which would be minimal compared to Isley Woodhouse and the Ratcliffe Freeport site, for example. c. GN suggested that we reach an agreement first of all on the items discussed earlier in the meeting before we consider mechanisms, but referred to Paragraph 51 of DfT Circular 01/22 which states the developer should identify when mitigation is required and this should form part of the scenario testing. d. PW asked if there was any other business. No other comments received. PW thanked the TWG and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 13 JUNE 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AM) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Kit Tang (KT) & Jonathan Morrow (JM) – AECOM
Laura Good (LG) – LCountyC Network Data Intelligence
Steph Meyers (SM) & Phillip Coe (PC) – ITP
Steve Harley (SHa) – Oxalis Planning
Paul Wilson (PW), Simon Hilditch (SHi), Matt Corner (MC) & – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:

Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
Catherine Townend (CT) & Steve Freek (SF) – National Highways (NH)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Alain Chandler-Hurst (ACH) – Jacobs
Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Introductions and New Attendees** a. PW welcomed everyone and asked for brief introductions from new attendees: i. AW works with Harry Horsley within LCountyC Highways Development Management. ii. PC works at ITP on sustainable transport. iii. JM is supporting KT at AECOM and has previously met a few people on the call. iv. SHa is another one of the planning consultants working with Segro on the EMG2 scheme. He mentioned his role on the TWG is to mainly to stay updated on relevant matters and assist where possible considering his experience of working in the local area. b. PW thanked AW, PC, JM and SHa and discussed the format of future meetings, proposing to stick with the second Thursday of the month at 10:00 AM but extending the meetings to at least an hour and a half. PW confirmed he would update the meeting invite and remove people who no longer attend regularly.	**PW**

2	**Review of May's meeting minutes** a. PW shared May's meeting minutes. i. JB and SHi were added to the emailing list. ii. BWB have produced a programme which will be discussed further in this meeting. iii. The base model validation report was re-issued. iv. BWB have not received any further comments on the status of the EM Point scheme. FA/JB both don't know the current position, but JB is speaking to CT Monday and can refer back. SHa confirmed that he can also review the EM Point scheme and also refer back. v. BWB met with LCC NDI and AECOM to inform updating the Proforma and uncertainty log information. vi. SM is on the call today to discuss the Sustainable Transport Strategy. b. PW confirmed BWB will update May's minutes with GN comments. PW asked if there were any further comments on May's meeting minutes. No further comments received.	**JB/CT/SHa** **PW**
3	**Client Update** a. IR provided an update on the project: i. Public consultation planned from Autumn 2024 onwards ii. DCO submission planned for Q1 2025. iii. Continued modelling throughout the year. iv. Public consultation on current mitigation plans, with the assumption that they are effective. v. Potential risk if modelling does not align with mitigation, but committed to adapting as needed and if significant changes are identified then a re-consultation will be undertaken. At the end, as a group we will get to where we need to ahead of the examination. b. IR emphasised the need for collaboration similar to two other successful projects in the past. The planning teams will be working on other topics in the background. c. JB expressed support for the strategy but emphasised the importance of agreeing on the modelling as soon as possible due to its inherent challenges. There is a significant risk that agreements can be made in principle, but the modelling shows something different, which then needs further work. d. IR accepted that whilst there is a risk we would not have a mitigation scheme that does not support the modelling and therefore if further time is needed later on to refine the mitigation, then that will be undertaken. Segro would not be cutting corners on the modelling/mitigation.	

	e. IR also confirmed that Segro are bringing developers together to look at a strategic solution at M1 Junction 24 which is progressing. Once further information can be shared then it will be. f. FA picked up on an email sent earlier in the week about changes to floor areas affecting the basis for the modelling and mitigation strategy, which is another risk as NH won't be clear on the impact and trip generation from the site. g. HH questioned the commissioning of new modelling and whether this will account for changes in floor areas. PW confirmed that the revised modelling will take into account changes in floor areas. h. PW reiterated that the current mitigation is based on development traffic manually added on top of forecast without development flows and so is robust but appreciates the risk. i. HH mentioned that if there are changes to the forecast years then the planned growth and cumulative impacts will also change and hence this could affect the current mitigation strategy. Hence, there are concerns with the suitability of the previous suggested mitigation. j. PW acknowledged HH comments but clarified that the previous mitigation aimed to maximise capacity using land within the highway boundary, albeit appreciates it needs reviewing and sense checked. As IR alluded to, there is also work going on behind the scenes to look at things holistically which will be shared in due course. k. HH asked whether there are details of the sustainable transport strategy so that we're not just focusing on highway mitigation. PW confirmed that work has been undertaken which is a top agenda item at the meeting. l. SHi confirmed that the sustainable transport strategy is actually ahead of the highway mitigation because the team recognise the importance of getting it right; lots of work has been undertaken by SM who will provide an update.	
4	**Programme** a. SHi shared the programme on screen and summarised the key milestones. Fundamentally it achieves the 2025 Q1 submission assuming that the TWG work together and with big assumptions on the mitigation and modelling, which BWB have tried to de-risk as much as possible. i. Towards the end of next week, the hope is that we have the revised PRTM modelling details signed off to instruct AECOM, which is a priority task. ii. Once AECOM is commissioned there are a whole series of other things we can then work on such as vision and validate. iii. By August, the aim is to have an updated set out PRTM data.	

	(line 30 of the programme shows this) along with updated junction models, meaning we will be back at the same position as where we are now to re-consider mitigation. iv. Before then we will progress some of the mitigation design but won't go to consultation until we have re-modelled the mitigation schemes and confirmed that it is still the right solution or not. v. PRTM modelling of the with mitigation scenario will then run in parallel to the consultation, which is planned for November through to January. vi. Once BWB are comfortable with the modelling and mitigation there are then the Road Safety Audits and finalisation of the DCO plans before making the actual submission. b. SHi said there is a lot of detail, but the programme will be shared and everyone can review in their own time and provide comments. c. HH asked when the red line would be fixed. SHi said ideally the red line will be fixed at the public consultation stage but that it goes back to the risk point that if something different comes out of the modelling it will need changing and there are programme implications to this. The need for any re-consultation/changes to the red line will depend on the significance of any changes to the mitigation, if they are minor then changes to the red line may not be required but if they are major then this could require changes. d. HH highlighted that the authorities review of detailed designs could impact the red line and so this needs consideration. SHi agreed that this is a risk item but that the authorities will have a chance to review the details before submission. e. SHi suggested that having early comments on the principles will be key and once we have more confidence on the modelling then BWB will have more confidence on the mitigation. Therefore, receiving comments on a without prejudice basis would be appreciated. f. JB thanked BWB for producing the programme and will review it once it is sent and asked what BWB will be consulting on. g. SHi confirmed that BWB would consult on the mitigation schemes that have been designed at that point. There will also be as much ES information available as possible. h. SHa added that there will be draft ES chapters and other documents tied to the legal sides of the DCO. We will therefore consult on a wide range of documents, including non-transport related documents but it will be a comprehensive pack of information. i. IR questioned whether some targeted re-consultation was required on Northampton Gateway. SHi confirmed this was required and can be targeted to specific people if changes are incurred to the schemes post consultation, which is the risk.	**BWB**

	j. SHa said that if there are concerns about changes ahead of the examination then this will be dealt with beforehand. k. HH asked if there will be a modelling sign off process within the programme. SHi said there will be in effect a live Statement of Common Ground that keeps a log of when agreements have been made. BWB can work on this in the coming weeks and months. l. HH asked whether a SharePoint page can be made where documents can be shared and accessible to everyone. SH said BWB will take that away as an action and consider accordingly.	**BWB** **BWB**
5	**Sustainable Transport Strategy** a. SM shared a presentation and went through key headline points: i. Lots of work has been undertaken behind the scenes on sustainable transport, a lot of which feeds in from experience at EMG1, which is seeing great benefits. ii. Postcode locations of existing staff have been obtained (large proportion of staff live in Nottingham, Derby, Leicester). iii. Direct engagement has taken place with occupiers at EMG1 to maximise opportunities, particularly car sharing. iv. The single occupancy car Travel Plan targets across all five years are ahead of the 10-year target, hence with the right measures there are no reasons why similar success can't be achieved at EMG2. v. Year on year increases have been seen in the use of the on-site bus shuttle service (slight seasonal differences, with spikes in winter months) vi. The existing bus routes provide high frequency services connecting the key cities/towns in East Midlands. vii. Stakeholder engagement was undertaken and comments taken on board. We are now proposing a single point of access with the shuttle bus near the northeast corner close to Pegasus Business Park, which removes the need for buses to exit the site back onto the A453. viii. There would be two route options for pedestrians (Hyams Lane and a shared footway/cycleway along the main industrial road). b. SHi mentioned that the public transport interchange and shuttle service is similar to EMG1 and so people can go visit the existing arrangement if that would be useful. c. HH said that the changes pick up on a lot of the queries raised by LCountyC previously. It has been identified to increase capacity on certain services so questioned whether conversations have been held with other developers to understand future growth and ensure that a plan is in place to accommodate all developments in the area.	

	d. IR confirmed that public transport is part of those conversations but just not to the level of detail as SM has set out on EMG1. HH asked whether conversations could continue as it is important but it's positive to see that the sustainable transport strategy is being developed holistically. IR confirmed conversations would continue. e. AA asked whether bus pinch points on the wider network have been considered to ensure maximum efficiency of public transport? SM said from a capacity perspective, ITP have been liaising with Trent Barton and the strategy is to focus investment where capacity is needed and there are issues within parts of the network so more services may be needed. In terms of congestion on the network I'll have to revert to BWB f. SHi suggested that this is raised with the operators and whether they have experience of congestion. BWB will be looking at increasing capacity around M1 Junction 24 and the site to ensure that journey times are not significantly affected. g. SM confirmed that Trent Barton have raised comments about the configuration of the bus interchange at EMG1 which will be taken on board at EMG2. ITP can liaise with them about pinch points on the wider network during next meetings. h. PW asked SM if she could send the presentation which will be circulated to the TWG (this has since been sent and issued to the TWG). i. SM asked that if anyone has any questions then she is happy to arrange separate meetings to discuss matters further. *j. FA in leaving the meeting asked for the following items to be considered, which SM has provided a subsequent response to:* *1. Bus priority at Pegasus will be reviewed as part of the modelling mitigation measures along with AA's point about pinch points on the bus network. ITP will discuss with operators where there are constraints on the network.* *2. Hours of operation of the Skylink services mean there are already a good base level of evening and weekend services. The Skylink Derby and Skylink Nottingham operate 24/7 and Skylink Express operates from 4am – 11pm. This can be enhanced as required.* *3. In terms of Travel Plan monitoring, ITP will be proposing a similar approach to EMG1 where we have:* • *Annual employee travel surveys.* • *Annual vehicle counts.* • *Monitoring patronage of internal shuttle bus.*	**SM** **SM**

	• *An annual employee focus group.* • *Public transport satisfaction surveys.* • *Whilst not transport related, we will also propose monitoring employee headcount monthly and shift pattern monitoring.* 4. *In terms of enforcement, at EMG1 the Sustainable Transport Working Group oversees the delivery of the Travel Plan and Public Transport Strategy. This group is conditioned within the DCO for the site to meet every 6 months. SEGRO / the Travel Plan Co-ordinator would report process regarding sustainable commuting. If the site is failing to meet targets, the fallback measures would be reviewed by the group and allocated from the ring-fenced Travel Plan Fund. ITP would suggest expanding this Sustainable Transport Working Group to cover EMG1 and EMG2 to look holistically at sustainable transport co-ordination across both sites.*	
6	**Base Model Validation** a. PW confirmed BWB have received agreements from GN (on behalf of NH) and TBo regarding the two junctions on NCountyC's network. GN undertook a review of all 17 junctions including those on the local road network, so whether HH or AW are comfortable with that or if they have any questions. b. HH asked if PW can re-send the documents. PW will follow up. c. HH said there is a risk that because the modelling is being re-visited there is a risk that the junctions in the study area may change. PW agreed that the study area could change but that the list covers a number of key junctions in the area. d. HH said that LCountyC need to review previous discussions about junctions requested before committing to reviewing base models.	**BWB** **HH**
7	**Trip rates** a. PW confirmed that mezzanines are to now be included in the assessment work with an assumed 33% uplift on the floor area. The development GFA would therefore be increased to 400,000sqm with the 100,000sqm mezzanine floorspace applied to the B8 use only. b. PW mentioned in terms of trip rates for the mezzanines, traffic data was received for EMG1 in 2022 which showed that even with mezzanines built out, the surveyed trip rates are still lower than what was originally assessed in the Transport Assessment. In addition, for the Amazon scheme at Bardon, Leicestershire, it was agreed that a 50% reduction to the trip rates could be attributed to the mezzanine, which also followed through on the Northampton Gateway Segro scheme with NH. c. HH suggested that if we have traffic data for EMG1 (which includes	

		mezzanines) then have BWB considered adopting those surveyed trip rates? PW suggested BWB can provide a comparison between the 2022 and 2023 surveyed data at EMG1. The current trip rates are from the Transport Assessment for EMG1 and BWB would not want to change at this stage because of timescales.	
	d.	HH questioned why BWB would not use the surveyed rates at EMG1 given the similarities in the developments/mezzanines? SHi suggested that the surveyed trip rates can be used for the vision and validate assessment.	
	e.	PW confirmed that whilst it would be relevant to use the EMG1 surveyed trip rates, timescales are critical and so BWB would prefer to retain the agreed EMG1 Transport Assessment trip rates and then run a vision and validate assessment using the surveyed trip rates.	
	f.	PW said that the difference between the agreed trip rates and those surveyed at EMG1 is approximately 20% based on the network peaks.	
	g.	HH asked if BWB have looked at the shoulder peaks and whether surveyed data can be provided for earlier hours? PW confirmed that such information is available and can be considered further.	**SM/BWB**
	h.	HH asked what BWB are looking to receive sign off on in terms of the trip generation. PW said that ideally BWB were seeking in principle agreement to continue using the previously agreed trip rates and the reductions for the mezzanine element.	
	i.	HH suggested that whilst the EMG1 Transport Assessment trip rates were agreed previously, this was because other data sources were not available at that time, which has now changed.	
	j.	PW confirmed that BWB will provide the data from EMG1 but will take a view on the trip generation given the timescales. HH suggested that timescales may not be too different because evidence is still required to sign off the 50% mezzanine reduction and referencing historic planning applications is not sufficient evidence.	**BWB**
	k.	MC suggested that as part of the Scoping Note, BWB presented a variety of different trip rates, and LCountyC confirmed that they would want to see the original EMG1 TA trip rates adopted given this was previously agreed and because we don't know whether the benefits of the Sustainable Transport Strategy at EMG1 will have the same impact at EMG2.	
	l.	PW suggested therefore whether we continue with the agreed trip rates but provide a comparison using the EMG1 surveyed data including the shoulder peaks.	
	m.	GN recapped on an email from 18/01/23 (MC to GN) with a trip rates profile throughout the day. An email was also sent earlier on 27/07/22 setting out NH views on the 2022 snapshot data to inform	

	the mezzanine and hence GN would refer back to those for NH position. Overall, NH has concerns with not assessing the full GFA and does not have evidence on the impacts of mezzanines, but in terms of differences applying the full GFA would only equate to around 80 additional trips, so questioned whether this should be adopted for robustness and expediency. PW confirmed that BWB will consider this and revert back.	**BWB**
	n. DS position of using theoretical data vs actual data is that the original (theoretical) data is more robust. There are also questions whether the Sustainable Transport initiatives at EMG1 would continue and replicated at EMG2 as if not then the surveyed trip rates may not be suitable.	
	o. SM said in terms of the buses, there is a commitment to continue the shuttle beyond the Travel Plan period. The proposal for EMG2 would be for it to operate in a similar way.	
8	**PRTM Proforma/Uncertainty Log**	
	a. PW said BWB have received comments from LCityC and NCountyC and asked whether LCC NDI/AECOM have reviewed them.	
	b. KT questioned the St Margarets scheme in LCityC and whether this needs including because it does not have funding. AA said that levelling up funding has been agreed but the money has not been received. However, it is suggested it is included because of the side of the city it is on and because it is planned to happen.	
	c. KT asked if AECOM can have a copy of the scheme drawing. AA said that the final design has not been agreed, but there is a concept design available which she can provide.	**AA**
	d. AA questioned the Western Park Golf Course that is currently included in the uncertainty log. The site has not yet been allocated and therefore this should be clarified and potentially removed.	**AECOM**
	e. KT asked if BWB could liaise with TB to get drawings of the A52 schemes.	**TB/BWB**
	f. KT asked GN about Local Plan sites in Kegworth which may need including and AECOM can add them into the uncertainty log. There are also comments on Ratcliffe which has consent and therefore needs including in the without/with development scenario.	**SHa**
	g. GN agreed, but in terms of Ratcliffe it is heavily restricted by planning conditions and so we would not want the full development included but partial development should be,	
	h. GN asked AECOM whether they will be provided with a forecasting report showing the modelling implications and a narrative etc. similar to before. KT confirmed AECOM would provide this.	**KT**

	i. GN also asked that consideration is given to how traffic is loaded onto the network from the Isley Walton scheme and ensure that there is no congestion in the model. j. GN also raised another scheme 'Land north of Remembrance Way' and whether this should be included which is included in the Local Plan. PW confirmed BWB will review and take a view whether this scheme should be included. PW asked SHa to review and provide details. k. KT set out the approach for the modelling, the EMFM model will be used which has a base year of 2019. The WebTAG databook would be updated to the latest available. The base model validation work would not be repeated but checks will be taken to ensure there have been no significant changes. The forecast years have been changed as well as the access strategy and development trips, all of which will be updated. l. PW thanked KT and confirmed BWB's priority action is to confirm the development trip rates. m. HH asked whether the previous LMVR is still suitable. KT confirmed the model is the same, however flow difference plots will be provided within an Addendum to the previous LMVR so the TWG can see the differences. If there are large differences, then further conversations may be required but AECOM do not believe this will be the case. n. HH suggested that now the application is going down the DCO process, whether National Policy changes the modelling approach being undertaken and if this should be checked. PW confirmed that planning policy will be reviewed to ensure that the background growth and assessment methodology changes. SHa confirmed he can assist with this and review the legal/policy side of things.	**KT** **SHa** **SHa**
9	**Mitigation** a. SH said that a report has been circulated on the current mitigation scheme. Whilst this was previously 'for information only' it would be useful to have comments on the principle of the design on a without prejudice basis. b. GN confirmed he can feedback but asked whether this would come ahead of the trip rates. SH confirmed we need to get the modeling running so to prioritise this and then review the mitigation once the modeling has been commissioned.	**NH/LCountyC**
10	**Covid Sensitivity Testing** a. KT reiterated the base model is 2019 and so pre-Covid. The guidance suggests that the impacts of Covid is taken into account which an Inspector may ask. The approach options are fairly vague and amount of work varies but is something to think about.	

	b. PW asked what the next steps would be. KT suggested that changing the base year is out of the question because of timescales. Instead, changes can be made to the forecast demand. AECOM can put together options and circulate those to the TWG for consideration.	**AECOM**
11	**AoB** a. PW asked if there is any other business. No further comments were raised.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 11 JULY 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Steve Freek (SF) – National Highways (NH)
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) & Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe)– Nottingham City Council (NCityC)
George Nock (GN), Alain Chandler-Hurst (ACH), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Kit Tang (KT), Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steph Meyers (SM) – ITP
Steve Harley (SHa) – Oxalis Planning
Paul Wilson (PW), Simon Hilditch (SHi), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) – National Highways (NH)
Adrian Whiteman (AM) – Leicestershire County Council (LCountyC)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of June's meeting minutes** a. PW shared June's meeting minutes i. EM Point scheme is being included in the modelling. JB confirmed that the approach being undertaken is acceptable. IR confirmed that the scheme has been implemented. SF has no further knowledge of the scheme. ii. Revised May meeting minutes have been re-issued. iii. Programme has been produced and shared. iv. BWB to produce a SoCG that can be signed off once agreements are made. v. SharePoint page to be discussed internally at BWB. vi. SM will be giving another update on the public transport strategy taking on board FA comments from June's meeting. vii. PW to give an update on the shoulder peak hours in July's meeting. viii. It was agreed previously that the previously agreed trip rates will be applied to the entire mezzanine floorspace. ix. TBe provided drawings of A52 schemes. x. Discussions have been held over the sites to be included in the uncertainty log. xi. SHa provided an update hat the approach follows policy requirements for the DCO. xii. Covid sensitivity testing to be discussed at July's meeting.	**BWB** **BWB**

	b. HH said that the sign off process within the SoCG is for the whole project and not just tired to the modelling. PW confirmed BWB would produce that in a cover sheet format. c. IR asked for a template showing how documents can be signed off. This can then be circulated to the TWG before being finalised. d. PW asked if anyone had any changes to June's minutes. HH confirmed there are a couple of amendments which will be sent in writing.	**HH**
2	**Client update** a. IR gave an update on the strategic highways solution which is developing. A presentation was carried out to NH last week which is being presented to LCountyC once Rebecca Henson is back from leave. So far, the strategy seems to be well supported by everyone. b. IR also gave an update on the MAG application which Segro has commented on. In summary, Segro believes it is better for the entire site to come forward as one rather than individually to get the benefits of the masterplan. If the site comes forward as separate developments, then it would not receive the Freeport benefits. c. HH said it is positive that strategic highway improvements are being looked at but asked whether this includes public transport strategies. IR confirmed it includes public transport and active travel. d. JB questioned how the two planning applications and proposals would work in terms of the DCO. IR confirmed Segro are still communicating with the airport to try and agree commercial terms and bring the scheme forward as one single scheme. If there ends up being two applications, then legal planning advice will be needed.	
3	**PRTM Proforma** a. PW confirmed that to date Revision 10 has been sent, with NH and NCountyC confirming agreement to. Rev 11 has since been created taking on board LCountyC comments. PW shared Rev 11 on screen. i. A single point of access is now proposed for the modelling, which would be modelled with unconstrained capacity and would provide worst-case for the design of the roundabout. It should also have no bearing at any other off-site junctions. HH understood but highlighted it as a project risk and if the access strategy changes it should be included as part of mitigation model runs. ii. PW made some changes to references to the WebTAG data in line with comments raised by AECOM. iii. PW included reference to a '2022 forecast year' in line with comments raised by AECOM.	

	iv. PW made some changes to the modelling scenarios to keep consistency between 'with' and 'without' development. v. PW confirmed that construction traffic would be shared with the TWG prior to being modelled in PRTM. HH confirmed he would like to see construction traffic numbers prior. vi. PW deleted any reference to 'sensitivity tests'. vii. The 'project specific study area model validation report' box was ticked on the basis that AECOM will provide an Addendum to the previous LMVR. viii. The 'mode share reporting, PT, car, active' box was unticked as AECOM confirmed it is irrelevant as the EMFM is a highways assignment model only. b. PW thanked everyone for the comments and confirmed that he would share the final proforma later today.	**PW**
4	**Uncertainty log** a. PW asked whether there were any further comments on the uncertainty log above the comments received to date, noting NH and NCountyC have confirmed agreement. b. HH asked for a summary of the correspondence with NWLDC. PW confirmed that Ian asked for the Isley Woodhouse trajectory to mirror the Reg 18 document, meaning no employment development until after 2038. The land north/south of Park Lane, Castle Donington trajectory has been pushed back two years. The land north and south of Remembrance Way is now included for. HH confirmed the uncertainty log is acceptable from LCountyC perspective. c. PW confirmed BWB would send out Rev 7 of the uncertainty log and Rev 11 of the proforma which should now be agreed.	**BWB**
5	**Site access and public transport update** a. PW shared the latest site access drawing. SHi summarised that it now involves constructing a fourth arm of the existing A453/Hunter Road roundabout. To get enough capacity two lanes will be needed on the A453 in both directions. However, BWB will be consulting on both the single and dual access options. b. SHi confirmed that the proposals include for a new Toucan crossing on the A453 between Pegasus Park and Finger Farm, which is on the desire line for pedestrians and cyclists travelling along the A453. c. PB asked whether the Toucan crossing will be included in the strategic modelling. PW said that whilst we don't have numbers on future demand, using the EMG1 modal split data there is not expected to be a high demand for cycling and therefore the crossing should not have a major impact on the modelling.	

	d. HH asked whether the A453/Hunter Road roundabout could need signalising in the future to accommodate all planned growth, as it could be incorporated at the junction if so. SHi suggested the junction should not need signalising for the purposes of EMG2. e. HH said if this is the case, the Toucan crossing could need including in the PRTM modelling even as part of the future mitigation runs. VD suggested it is better to include the crossing within VISSIM to avoid further traffic re-routing away from the Strategic Road Network and because VISSIM is more accurate from an operational perspective. f. KT confirmed AECOM can include the toucan crossing in the PRTM but would need a steer on demand. g. HH asked if any work has been undertaken to look at the demand at the crossing. PW confirmed that modal split calculations have been undertaken but will follow up in more detail. HH said that LCountyC will need to know that the crossing location and type is suitable from a safety perspective. SHi confirmed that BWB will validate it once traffic data has been received, but in terms of speeds these should be limited because of the roundabouts either side and BWB has speed data available for that section of the A453. h. SM shared a presentation with the TWG and has been in touch with the bus operators to inform them of the latest access design and location of the interchange. Trent Barton, who operate the Skylink services, are happy with the interchange location but would like to see priority given to buses leaving the site to reduce delays. i. SM confirmed Trent Barton are happy with the configuration of the interchange and having separate areas for the public buses and shuttle services. They are also comfortable with two bus stops and believe this should be fine from a capacity perspective, which mirrors EMG1. Any future capacity improvements could be changes to vehicle types. j. SM said that Trent Barton asked for the turning circle to be big enough to accommodate coaches/articulated buses and to be surfaced with a material that can withstand regular use. k. SM reiterated that previously there were capacity concerns on the Skylink service between Derby and Leicester. A costing exercise was undertaken to see how much money Segro could put aside in a fund to improve capacity. Since then, the Skylink service has increased from a 20 minute frequency to a 15 minute frequency, meaning the focus may now be more on the Nottingham Skylink services to ensure capacity remains. l. TBe asked whether the site lends itself to a coach way for National Express or Megabus to use and whether it is worth having discussions with the operators to see if they would be interested.	

	m. SM said that conversations have not been held with these operators because of the catchment area of staff but questioned whether National Express services would be used for commuter trips or whether they are intended for longer distance leisure trips. n. TBe suggested that some people may want to use them for commuter trips and there are examples in Milton Keynes where coach trips have been incorporated into the public transport strategy but is happy to discuss this separately. SM agreed to take this off-line. o. SM discussed strategic connections in the area and has explored the potential for enhancing the shuttle services and having e-charging depots at both EMG1 and EMG2. The idea is that there would be four electric shuttle services (two at each site) which could be charged at the sites rather than having to send them off-site. p. SM said in terms of wider connectivity a hub and feeder model has been explored, where wider developments can feed into the hubs and other settlements to improve access to employment areas. q. SM provided an overview on management and coordination and how travel plan delivery can be enforced. At EMG1 a Sustainable Transport Working Group was created by Segro and attended by local stakeholders to oversee the delivery of the two sustainable transport documents. The group holds the travel plan coordinators to account as a requirement of the DCO and get together every 6 months for a period of 10 years up to 2028. Members are split into two groups (voting members include Segro and local authorities, whilst non-voting members include occupiers, bus operators and airport). The group comes together to discuss and track progress and to understand how funds are being spent. This has been really successful and has led to funding being invested in Skylink Derby/Leicester services. The group is intending on ending by 2028 but could time well with EMG2 so that it continues for a further 10 years. r. FA asked whether voting members are restricted to local authorities and whether NH would be part of the non-voting members. SM confirmed voting members are restricted to local authorities, but that NH do not currently attend but would be welcome to join in the future. FA confirmed she would refer back, but suggested NH would most likely want to be part of the group to check that targets are being achieved. s. FA asked if SM could circulate the presentation slides. PW confirmed BWB would issue the slides.	**SM/TBe** **BWB**
6	**PRTM covid sensitivity update** a. PW shared a report produced by AECOM which shows that through a variety of data sources, applying a covid factor would actually reduce traffic and therefore whilst a global factor could be applied to the flows, retaining the current flows from the model would provide a	

	worst-case position. AECOMs report could be appended to provide the evidence as to why covid factors have not been applied. b. SF asked for clarification that the covid sensitivity factor would actually reduce flows, as his understanding is that traffic flows have returned to pre covid levels. c. KT confirmed that the flow comparison is between 2019 and 2023 data. The data shows that 2023 flows are higher than 2019 flows. d. SF suggested that the pre covid flows are used, PW agreed that this is the proposed strategy. e. GN said that he would read the information and refer back. f. HH said he would also refer back but that this could be the time to do it as it could be asked for by an examiner during the hearing, hence it might want to be fully considered.	**GN** **HH**
7	**Vision and Validate** a. PW shared a table showing the traffic generation for both the main modelling scenarios compared to the vision and validate assessment. Using surveyed data from EMG1, there would be a 27% reduction in development traffic in the AM peak and a 21% reduction in the PM peak, when accounting for 100,000sqm of mezzanine floorspace. b. PW questioned whether there would be benefits of running a vision and validate scenario based on the above flow reductions. c. GN asked that information as to how the information has been collated is shared with the TWG for them to comment on the calculations. PW confirmed that ITP have produced a report explaining this. d. PW mentioned that consideration has been given to the shoulder peak hours, again using EMG1 data. In summary, 0700 to 0800 period generates less traffic than 0800 to 0900 and 1600 to 1700 period generates less traffic than 1700 to 1800 hours. Therefore, BWB are comfortable that the traditional peak hours are suitable to assess the development on, but BWB can provide the evidence behind this. e. HH asked whether the purpose of the vision and validate exercise is to test the lower trip rates using EMG1 surveyed data or to consider the lower trip rates associated with mezzanines. f. PW confirmed it is both as the EMG1 surveyed trip rates includes for the benefits of the Sustainable Transport Strategy but also includes for mezzanines as these exist in some of the units, so it is a hybrid assessment.	**BWB**

	g. HH asked that as part of the evidence base whether the quantum of mezzanines at Swan Valley from 2014 can be provided to compare against the EMG1 information. PW suggested it might be difficult to get hold of this information but would have a think as to how this information can be obtained. h. HH asked whether hourly traffic flow data throughout the day can be provided as it might explain why certain peaks have reduced. SM said that daily values are available but if hourly breakdowns are required then this might take more time. HH suggested that the daily totals are provided initially as this would give a guide as to whether the same trips are still occurring overall but at different times. i. DS asked whether the survey data is broken down into half hourly periods. SM confirmed she would double check but believes it is hourly. If further information is needed on shift patterns, then this information is collated from occupiers of EMG1. Most shifts seem to start on the hour and many occupiers try starting shifts at different times to each other to avoid congestion.	**SM**
8	**AoB** a. PW asked that the TWG provide comments on the initial mitigation strategy. b. PW mentioned that tied with the above, it would be appreciated if the TWG can provide comments on the scope of highway design pre DCO document. AM has provided comments on behalf of LCountyC but if NH and NCountyC can comment that would be appreciated. c. PW confirmed that BWB would update the programme to account for the delay in commissioning the modelling. d. PW said BWB will issue the final proforma and uncertainty log. BWB have received a fee proposal from AECOM based on V9 of the proforma so this will need comparing against V11. After that, we can get an inception meeting agreed to top and tail the inputs for the modelling work. e. PW asked KT for timescales for a meeting. KT asked PW to send through available dates with the aim of getting a date that all can agree to. f. PW thanked everyone for their time and ended the meeting.	**NH, LCountyC, NCountyC** **NH, NCountyC** **BWB** **BWB, AECOM** **BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8 AUGUST 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Harry Horsley (HH) & Adrian Whiteman (AM) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steph Meyers (SM) – ITP
Steve Harley (SHa) – Oxalis Planning
Simon Hilditch (SHi), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Alain Chandler-Hurst (ACH) - c/o Jacobs; NH transport consultants
Tim Bellenger (TBe) – Nottingham City Council (NCityC)
Steve Freek (SF) – National Highways (NH)
Tom Boylan (TBo) - Nottinghamshire County Council (NCountyC)
Kit Tang (KT) – AECOM
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Paul Wilson (PW) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of July's meeting minutes** a. MC shared June's meeting minutes i. The Statement of Common Ground and sign off sheet have been produced and is an agenda item in this meeting. ii. The SharePoint page has been discussed with colleagues at BWB and a link will be sent around the TWG shortly. iii. PW issued the agreed PRTM proforma v11 and uncertainty log v7. iv. PW issued SM presentation slides updating on the sustainable transport strategy. v. PW issued further information on the shoulder peak periods and daily traffic flows from EMG1, which show that the traditional peak hours provide a robust assessment. vi. PW issued further information on trip rates for the Vision & Validate assessment based on surveyed data from EMG1. vii. JB issued a note with comments on the programme, modelling, sustainable transport strategy and mitigation strategy, which is an agenda item in this meeting.	

	b. MC asked if anyone had any further comments on July's meeting minutes. No further comments received.	
2	**Client update** a. IR confirmed that the wider modelling strategy has been communicated with other stakeholders including NH, LCountyC and more recently Midlands Connect. An implementation plan is being put in place but Segro need to be have more confidence that their package of work is suitable before sharing further information.	
3	**Sustainable Transport Strategy update** a. SM provided an update on the sustainable transport strategy following the previous update in July 24. i. Meeting planned with NCountyC on 09/08/24 regarding Notts Bus on Demand. ii. ITP have met with Diamond Bus who operate a service from Burton to EMG1 at a 60-minute frequency who are keen to expand this to serve EMG2. The operator is also looking to implement electric buses after funding being received. Diamond Bus currently receive subsidies from DCountyC, which will continue to 2026. Diamond Bus have flagged an issue that timescales are currently tight (with only 5 minutes of flexibility) so would need to consider impacts of additional stops at EMG2 but there is scope to introduce more buses to increase frequencies to every 30 minutes. iii. There is currently good coverage from the bus services towards EMG1 and the site, so any funding would likely go towards increasing the frequencies of existing services. iv. ITP will be forecasting bus passengers taking into account the additional patronage from EMG2, alongside other developments in the area. The distribution of additional passengers will need to be considered using existing home postcode data for staff at EMG1 (ITP currently hold 4,000 home postcodes locations). v. ITP will collate the above information into a Technical Note so the TWG can understand the work and methodologies adopted to forecast bus passenger increases and how this will be accommodated. b. HH questioned the way bus improvements would be secured, ideally LCountyC would want it via obligations rather than financial contributions. c. IR confirmed that ITP have a commission on EMG2, and whilst there is also a remit on the broader strategy, the EMG2 strategy needs to tie in with this.	

	d. HH said that there are various planning applications coming forward in the area that rely on the same bus services so LCountyC would need to understand how these buses serve all developments and then how the strategy is tied down, which should be an obligation. e. IR said that ultimately relying on other sites coming forward may mean the obligations aren't deliverable. In the past funding has been made available by Segro, which can then be used flexibly towards bus improvements, where required. f. SM said that currently the money is ringfenced but managed by Segro and parties vote on how that money is spent. The money is not passed on to the local authorities, it still sits with Segro and the voting members have an influence on how it is spent. The timescales for when plans are prepared and bus improvements being delivered can be quite significant so having a pot of money that can be spent flexibly provides greater benefits. g. HH was pleased to hear that LCountyC would not be provided with the money and that having a pot managed by voting members would work better but questioned whether other developers could input into this as part of a wider TWG. h. IR said that other developers could join the party and actually having a wider strategic transport strategy with wider funding would be beneficial. i. GN asked if indicative fare calculations would be included in ITP's work, noting current fare caps on buses. j. SM said that indicative fare calculations have been included in terms of establishing the amount of funding needed to support the services and how long it would take commercially for them to become ticket fares. k. GN asked about capacity constraints and whether this relates to timetable capacity constraints or network delays. SM said it is to do with how many people would be on the buses and if additional vehicles are needed to accommodate the future demand. l. GN said from a technology perspective, whether bus priority measures are needed/signal technology etc. as part of a wider strategy particularly with timetable constraints. SM said she is happy to work with BWB on that. m. AA asked about bus priority measures and whether this would be included in the Technical Note. n. MC said bus priority will be considered after the modelling and once we have an understanding of the benefits gained from the highway mitigation, particularly around the site access.	

	o. HH asked whether the public transport strategy sits within the wider vision led strategy as well as the core strategy. MC said it will be both as the modelling of all forecast scenarios would need to take account of bus accessibility and ensuring there are no delays to services, particularly if different mitigation schemes are proposed based on different traffic modelling scenarios. p. GN suggested the bus strategy will be front and centre of the vision and validate assessment. MC agreed given the calculations are based on EMG1 survey data which inherently include for the sustainable transport strategy and bus strategy that is implemented there. q. SM suggested that bus strategy is included in the forecasting because the travel plan targets will be informed by the modeling work so when calculating the number of bus passengers they will be informed by the travel plan targets so everything should tie together.	
4	**EMFM Modelling Update** a. MC summarised that in July we reached an agreement on PRTM proforma v11 and uncertainty log v7 and AECOM have been commissioned on the modelling. This is being looked at in two stages; stage 1 comprising the core scenarios (2022 forecast base and 2028/38 forecast with/without development scenarios), and Stage 2 comprising the covid sensitivity test, vision and validate and construction traffic scenarios. b. MC summarised AECOMs presentation from July on the PRTM base model validation using the latest TAG databook and that the model validates well in terms of screenline, cordon performances, link performance etc. AECOM are comfortable with the base model. c. JM said KT is on leave and that JM/AD will be taking over the project moving forward. The TAG databook updates made little difference to the base year model performance. The only thing that is still missing is the A52 junction improvement signal timings. There is still work that can be done to code the junction improvements in. d. MC and CT are liaising with the relevant person at NH involved in the A52 junction improvements to obtain signal timing information so are hoping to have this soon but it is good to know that other work can continue in the background. e. MC asked JM whether the delay in receiving the A52 signal timing information has affected AECOMs programme. f. JM said he would check the programme but if any time has been lost then it should be no more than a week, which could be made back up. He will liaise with KT next week and refer back.	**MC/CT** **JM**

	g. CT said it is the major projects team that hold the signal timing information. Jeremy Dixon is the major projects liaison who is querying what the information is for before it is released. There are also three smaller schemes along the A52 which he has asked whether we would also like data for which were completed over recent years (Silverdale, Stragglethorpe and Bingham Road). h. MC said he would look at the locations of these junctions and the significance of the schemes to see whether it will be critical to include them in the stage 1 modelling or if they can be included later on within the mitigation runs. i. CT said that they are smaller schemes located further around the A52 near Radcliffe on Trent. MC said he would look and refer back. j. JM said that the uncertainty log can be checked to see whether they are included and even if so the coding may be slightly different to what has been built. MC said he would liaise with JB directly. k. MC queried the traffic flows coming out of EMG1 within the original modelling, which is circa 2,900 pcus and much higher than expected. JB said he would review this and refer back. l. GN asked whether the updated base model LMVR addendum will be issued sooner rather than later so that it can be agreed before the forecasting scenarios are run. m. JM said AECOM can provide the LMVR addendum sooner or in parallel to running the forecast year scenarios.	**MC** **MC** **JM** **JM**
5	**Wider Strategic Modelling Update** a. IR said that work is still going on in relation to the strategic modelling, but the strategy still needs formalising with the other parties. b. MC said that BWB are currently obtaining trip generation/distribution information for all sites being included in this assessment before a proforma and uncertainty log will be compiled prior to further PRTM modelling being carried out. c. MC said that similar to the EMG2 approach, the traffic from all strategic developments will be manually added on top of the furnessed forecast year without development flows to avoid background traffic re-assigning and to ensure that the full impacts of all strategic developments are mitigated. d. HH asked whether once the above modelling has been run and mitigation has been identified whether it would be run in PRTM. MC confirmed that the mitigation would be tested in PRTM. e. GN asked for clarification about the modelling being undertaken; so Stage 1 relates to the core scenarios (2022/2028/38 with/without	

	development), Stage 2 relates to the covid sensitivity testing and vision and validate scenarios and then the strategic assessment is a separate piece of modelling that relates to the wider developments in the local area that IR gave an update on previously. IR/MC confirmed this is correct. f. SHi said that the fundamental principle is that EMG2 mitigation aligns with the strategic work/mitigation being undertaken separately. The purpose of the wider strategic approach it to ensure that a more comprehensive scheme is proposed that offers greater benefits, rather than each developer proposing piecemeal improvements that offer less of a benefit. g. IR said that it also avoids the highway authorities being sent various different mitigation designs and instead this approach would mean there is one overarching mitigation strategy that accommodates all planned development.	
6	**Covid Sensitivity Testing** b. MC referred back to July's meeting and GN information on traffic counts on the M1 and A42 for 2019, 2023 and 2024. This showed that traffic on certain parts of the SRN has increased from 2019 to 2023/24 particularly in the evening peak hour and given PRTM has a 2019 base whether traffic flows need increasing to account for this. c. MC asked JM whether any further thought has been given to this, such as whether we apply a global factor or go into more detail for different road types. d. JM said that the global factor would be the better option rather than updating the base model. JM will catch up with KT next week and advise on the best approach. MC said that is fine particularly as it does not hold up the stage 1 modelling.	**JM**
7	**Jeremy Bloom Note** a. MC thanked JB for a note issued on 23/07/24 with initial thoughts on the programme, modelling, sustainable transport strategy and mitigation strategy. So far, BWB have gone through each of the comments and provided thoughts against each one but asked whether a response is needed or if BWB/ITP just take the comments on board as we progress through the work. b. JB said he is happy to have a discussion off-line to talk through things if that would help, as there is a lot of detail. The biggest concern at this stage is around the programme and the mitigation being designed around the modelling, albeit appreciate why this is happening. c. SHi suggested it would be useful to have a separate discussion around some of the points, where there may be some	**SHi**

	misunderstanding such as comments on the A50 Junction 1 scheme which relate to a separate application. d. MC also said that the comments on programme timescales have been included in a revised version which will be shared with the TWG. e. GN asked if a revised programme will be shared with new start dates for the modelling etc. JM will update on programme timescales. f. FA reiterated the importance of having the latest programme for internal resourcing purposes. MC said that the programme will be shared. g. HH asked about the SharePoint page and an update on this. MC confirmed that the SharePoint page is being looked at and a link will be available soon.	**MC** **MC**
8	**Vision& Validate** a. MC said the vision and validate assessment forms part of the stage 2 modelling work. PW circulated ITP's report containing surveyed information of EMG1 and in summary the data shows that surveyed trip rates vs those from the original Transport Assessment (based on Swan Valley) are approximately 28% lower in the AM peak and 21% lower in the PM peak. b. HH asked whether the ITP report includes the methodology for the modelling such as the manual assignment of trips etc. or does it simply focus on the trip generation. MC confirmed the note focuses on the trip generation comparison and any further details on the modelling methodology will need to be set out separately. c. HH said that there will be risk incurred if we do not agree the methodology for the modelling so recommended that this is discussed beforehand. d. GN queried the strategy for the modelling and whether this is different to what was agreed before. e. VD said that the modelling strategy will be consistent between both stages and follows previous agreements i.e. PRTM will be run and then development traffic manually assigned as a worst-case on top of the forecast without development scenarios. Traffic flow furnessing will be carried out beforehand for the forecast years (with and without development scenarios) but there is very little difference in the flows because of congestion in the area, hence why a manual assignment of development trips is also being carried out. f. GN thanked VD and suggested that a separate modelling focused meeting is held outside of the monthly TWG to iron out any gaps in the modelling. MC to organise.	**MC**

	g. HH asked whether the 2028/38 with/without development scenarios will be included in the PRTM forecasting report. MC confirmed this is correct. VD said that the manual assignment is carried out after PRTM as part of the microsimulation modelling. h. HH said that thought will be needed as to how manually assigned development traffic is applied to a congested network. VD thoughts are that PRTM typically re-assigns background traffic hence the distribution of development traffic should be via the preferred route choices. i. JM said that there PRTM re-assigns both background and development traffic depending on route choices etc. j. HH suggested that this is taken off-line at the appropriate time. MC agreed and suggested that the development distribution pattern is agreed once outputs have been received from AECOM.	
9	**Statement of Common Ground** a. MC said that a working draft SoCG and sign off sheet have been produced by BWB. b. MC shared the sign off sheet and summarised the layout. It lists all the various documents that will be submitted and then outlines which highway authority needs to provide approval. It then keeps a log of where agreements are made and those that are still outstanding. c. MC said the SoCG will then allow the highway authorities to sign off groups of documents (i.e. stage 1 modelling reports, stage 2 modelling reports etc.) rather than asking for signatures every time a report is submitted. d. SHa said it is helpful to have a sign off sheet and that it is good to get the SoCG going early as it will become a critical document. e. MC said that when BWB share the sign off sheet, this will be accompanied by an explanation as to how various documents have been grouped together. f. JB said it would be useful to have the sign off sheet and note at the same time. It will be good to see what is being signed off as we progress through the work to keep track, but it may be better to have the SoCG as an outcome document rather than a sign off of technical work. The tracker will then allow the SoCG to be prepared. g. IR suggested that we call the document a 'sign off process' and then towards the end we can create SoCG for the highway authorities to sign off. h. FA suggested that documents are split down so that it is easier to get agreements/sign offs on smaller tasks. IR confirmed this is the approach being taken. SHi reiterated this and said that different elements of the	

	Transport Assessment will be agreed in smaller parts, so that the final Transport Assessment is in effect a 'wrapper' document that summarises each of the key submissions agreements.	
10	**Next steps** a. MC summarised the next steps: i. Obtain A52 signal timing information is on the critical path. ii. Continue with the PRTM modelling and arrange an off-line meeting to ensure that agreements are made. iii. Share the revised programme and sign off sheets. iv. Share a link to the sharepoint page. b. MC thanked everyone for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 12 SEPTEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN), Alain Chandler-Hurst (ACH), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tim Bellenger (TBe) – Nottingham City Council (NCityC)
Steve Freek (SF) – National Highways (NH)
Tom Boylan (TBo) - Nottinghamshire County Council (NCountyC)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Simon Hilditch (SHi) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of August's meeting minutes** a. PW shared August's meeting minutes on screen and summarised the following actions: i. BWB issued A52 signal timing information and provided justification for excluding the three smaller schemes raised by NH. ii. AECOM confirmed that EMG1 flows have been updated to match the original Transport Assessment. iii. AECOM issued the PRTM base model validation addendum report. iv. A meeting has been scheduled on 25/09/24 to discuss Jeremy Bloom's note. v. BWB has created a SharePoint page. vi. A separate meeting took place on 05/09/24 to recap on the modelling work, which will be scheduled monthly moving forward. b. PW asked if anyone had any comments on August's meeting minutes. No comments received hence they are agreed.	

2	**Client update** a. IR recapped on a meeting at Radison Blue by Midlands Connect and the wider consortium which set out the current position for the wider strategic developments, focusing on transport modelling. There is another meeting scheduled for 12//09/24 to finalise the modeling strategy. b. IR said that further thought has been made to improve infrastructure at EMG1 for the benefit of both EMG1 and EMG2, given they are intrinsically linked. This includes additional bus charging facilities to avoid buses having to travel back to the depot, increasing the size of the management suite and the raising the heights of the cranes at the Rail Freight Terminal (RFT). c. IR confirmed that the proposals now include for industrial development on Plot 16 (c.30,000sqm GFA). The programme remains unchanged with DCO submission planned to be scheduled for Q1 2025. d. SHa said that the ES Scoping is ongoing and being led by PINS and that comments can still be received on all disciplines, not just transport. No comments received.	
3	**Sustainable Transport Strategy update** a. PW confirmed ITP have issued draft Travel Plan and Sustainable Transport Strategy documents to BWB. BWB will be reviewing before they are shared with the TWG.	**BWB/ITP**
4	**EMFM Modelling Update** a. PW recapped on the strategic modelling work: i. July TWG – PRTM proforma v11 was signed off by the TWG. ii. An ES scoping note was issued subsequently, which triggered comments from HH in particular. The only impact is how we deal with Plot 16 on EMG1 as the RFT 'expansion' will not have any operational impacts that cause changes to traffic generation. b. PW confirmed the revised PRTM proforma v12 includes Plot 16 on EMG1 (30,000sqm B8 industrial use) on top of the 400,000sqm on EMG2, hence 430,000sqm development altogether, which is slightly larger than what is being applied for via the DCO. c. AW confirmed that the additional floorspace being modelled at Plot 16 would not cause any problems from LCountyC perspective given what is being modelled is higher. d. GN confirmed Jacobs have received emails on this matter along with trip rates information so will review this and come back in writing. e. PW confirmed that BWB has issued information disputing the 4-5pm	**Jacobs**

	shoulder peak. Based on Swan Valley trip rates being from 2007, recent TRICS information, surveyed information at EMG1, recorded background traffic flows, and the times periods modelled within PRTM, BWB are of the opinion that there is no 'shoulder peak' in reality and intend to continue adopting the previously agreed 5-6pm trip rates as part of the upcoming modelling work. f. MC provided an overview of the EMG1 RFT details. The RFT 'expansion' will not increase the number of trains/storage space, so whilst there could be movements between EMG2 and EMG1 RFT, there will be no increase in total HGVs. BWB has considered the likely number of movements between the two sites and believe numbers will be low (and are already assigned externally to the network in PRTM anyway) and so do not need considering in PRTM but can be considered as part of the VISSIM modelling if required by way of manual alteration. g. PW confirmed that an email has been sent to HH summarising MC comments which can be shared with the TWG (sent 12/09/24) h. IR confirmed that the EMG1 Transport Assessment originally considered up to 16 trains per day and there are only 6 trains visiting EMG1 per day at present. i. SHa confirmed that there are no plans to breach or exceed the approved level of activity at EMG1 RFT. The additional crane height would improve efficiency and capacity in terms of storage containers but would not have any implications on traffic generation. j. IR pointed out that other developments outside of EMG1 and EMG2 could also use the terminal. PW reiterated that it is a positive story nonetheless as the RFT removes HGVs from the highway network, albeit the numbers that we would be considering from EMG2 would not be significant and do not need considering in PRTM. k. AW suggested that LCountyC may have been misled by the wording of the ES Scoping document and the changes to the RFT. The numbers suggested by MC are low and therefore LCountyC can review the information and confirm whether an assessment is required or not. There could however be more recent best practice to calculate the number of HGVs such as the methodology adopted for the HNRFI. l. MC confirmed that BWB have ATC data from EMG1 which shows how many HGVs are generated by EMG1 externally compared to how many visit the RFT internally to understand the proportion. This shows a relatively low percentage of HGVs visit the RFT. m. PW confirmed that BWB will forward the email sent to Harry on 06/09 to the wider TWG (sent 12/09/24). n. JB interpreted the text in the ES Scoping as an increase in capacity on the RFT so asked what the implications of the additional handling	

	capacity are and development of the site. o. PW said from a transport planning perspective, 16 trains per day were previously assessed/approved, which would remain unchanged. There could be HGV movements between EMG1 and EMG2 but they would not be significant and are already accounted for on the wider highway network in PRTM anyway. This would result in small changes to turning movements at the EMG1 roundabout. p. AW confirmed LCountyC will review the RFT trips sent to HH. q. MC discussed the Covid sensitivity assessment and that this is currently included in Stage 2 modelling but that conversations have been had as to whether it should be included in Stage 1 with global factors applied to the base traffic to account for increases in traffic since covid. r. JM confirmed that applying a global factor is the preferred approach. There are local counts and NTS/WebTRIS factors that show 7%-11% changes in traffic that can be applied to the base flows. This can be undertaken at either Stage 1 or 2, which is up to the wider stakeholders. s. GN referred to a Jacobs note in response to AECOMs presentation which showed that flows on the SRN have increased hence recommended for covid sensitivity to be undertaken at Stage 2. JM confirmed AECOM would revisit this email and advise accordingly. PW confirmed that BWB would forward the email to JM (sent 12/09/24). t. MC mentioned that EMG1 flows in PRTM have been amended to reflect what was assessed in the original Transport Assessment but that this would have no effect on the base model validation addendum. JM added that as the PRTM has a base year of 2019 and EMG2 became operational in 2020 that this would have no effect to the base model validation. GN asked for confirmation of this by email.	**LCountyC** **AECOM** **BWB/AECOM**
5	**Statement of Common Ground (and SharePoint)** a. PW said that BWB issued information on 02/09/24 regarding SharePoint and whether people have managed to gain access. No issues were raised with access to SharePoint. b. PW shared the list of people who have access to SharePoint, which can be extended to others if required. c. IR asked if anyone has any comments on the structure or text within the SoCG. No comments were received but for the TWG to review and comment at the appropriate time.	**All**
6	**Vision & Validate Assessment** a. PW said that BWB has issued information on the EMG1 2022/2023	**Jacobs**

	survey information that forms the basis of the vision and validate assessment, noting that the 2023 survey was undertaken during LCountyC half term, although not within other counties across the East Midlands. The idea is to model the lower vision and validate flows as part of the 'with mitigation' scenarios as the travel planning measures are linked to the wider mitigation strategy. Survey information has been sent to GN to inform this, so BWB will await comments in due course. GN confirmed they will prioritise the trip rate work and then come back on the observed data. PW confirmed that information has been shared with wider authorities too for consideration.	
7	**Wider Strategic Modelling Update** a. PW provided a general update that work is continuing and that a further meeting is taking place on 12/09/24. However, in the meantime BWB has produced a PRTM proforma for the wider strategic modelling, without prejudice to the wider decision making, which was shared on screen: i. Development details for each scheme is included. ii. Trip generation details have been provided by the respective transport consultants where agreed or based on best known information at present. iii. 2041/2051 assessment years are being considered. iv. Access details have been provided from the respective transport consultants, albeit further information required for the Land West of Castle Donington scheme. b. PW confirmed that BWB has been liaising with AECOM about planning data assumptions and uncertainty log information to inform the wider PRTM assessment and are awaiting to hear back with regards to this, if PRTM is progressed with. c. SHa asked whether the core traffic generation data would be valid for different strategic modelling packages. PW confirmed that the trip generation details would be the same whatever model is chosen.	
8	**Next Steps** a. PW summarised the key actions: i. BWB to issue details on trip generation (Plot 16, EMG1 RFT, Covid sensitivity etc.) to get the modelling back on track (sent 12/09/24) ii. BWB to schedule further modelling meetings and look to include AECOM iii. BWB to check in with SM about the meeting with JB (confirmed 16/9/24 she can join).	**BWB**
9	**AOB** a. AW asked that the trip generation details are set out within a	**BWB**

	standalone note that can be signed off. PW confirmed BWB can do this but after the details have been agreed so as not to hold up the modelling any further. AW agreed this is acceptable.	
	b. MC said that BWB has produced a sign off template sheet that can be circulated for signatures once documents have been approved. BWB can share the template for comments.	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 10 OCTOBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Adrian Whiteman (AW) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN), Alain Chandler-Hurst (ACH), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC) & Simon Hilditch (SHi) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Anthea Anderson (AA) – Leicester City Council (LCityC)
Steve Freek (SF) – National Highways (NH)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Laura Good (LG) – LCountyC Network Data Intelligence
Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of September's meeting minutes** a. PW shared September's meeting minutes on screen and summarised the following actions: i. ITP to provide an update on sustainable travel at October's meeting. ii. BWB will update September's minutes with AW comments. iii. BWB confirmed that the EMG1 flows in PRTM would not change the PRTM base validation. iv. Draft SoCG has been issued in draft v. A modelling meeting was held on 03/10/24, which was also attended by AECOM vi. BWB will be issuing trip generation details in a note for formal sign off. b. MC confirmed that previously agreed documents have been added to the 'Approved Information' folder on SharePoint. A folder system has been created that groups documents together as per BWB email of 03/09/24. Sign-off sheets will also be issued to get agreement on documents (issued on 10/10/24) c. GN asked if a comments box will be added to the sign off sheet. MC confirmed this had already been added.	**BWB** **BWB**

	d. HH asked if Rebecca Henson can be added to the SharePoint page. MC confirmed Rebecca can be added (since completed) e. IR asked if the folder structure for the grouping of comments can be added to SharePoint. MC confirmed he would add the folders (since completed) f. PW asked if anyone has any comments on September's meeting minutes above those received by AW. No comments received, hence the updated version should be agreed.	
2	**Client update** a. IR provided an update on the strategic highways solution. A scheme has now been designed and the consortium are content that this will alleviate capacity problems on the SRN. The consortium includes EMG2, Isley Woodhouse, Uniper and Coaker land. b. IR suggested that it is critical that no other planning applications come forward that cause problems to the wider mitigation strategy being planned unless they form part of the solution. c. IR confirmed that the public consultation is planned for January/February 2025 with the DCO submission at the end of Q1 2025. d. CT asked if modelling has taken place of the strategic highways solution. IR confirmed that work has been undertaken internally within the consortium which will need to be formally tested via an agreed route using strategic transport modelling. The modelling considers all developments in the consortium. e. PW confirmed that strategic modelling has not been undertaken of the wider assessment yet using the EMG WISSER model, hence the modelling undertaken so far uses the 2035 PRTM flows from the original EMG2 modelling work, with traffic from all four sites added manually. f. JB asked if dates are set for statutory consultation. IR confirmed January/February 2025 over a six week period. g. HH asked if the TWG may have sight of the mitigation schemes prior to consultation. IR confirmed drawings will be shared prior.	
3	**Sustainable Transport Strategy update** a. SM provided an update on the sustainable transport measures. The aim of the STS is to ensure EMG2 is served by sustainable transport at first stage of development and employees have reasonable alternatives to the private car. There will also be a series of mode specific objectives. b. TBe said it is difficult to get a bus from EM Parkway to EMG1 or EM	

	Airport and asked whether improvements to bus connections can be explored. SM agreed and confirmed that demand responsive buses are available but appreciates this requires planning ahead. SM confirmed that ITP are working with other partners such as Uniper and there are proposals to divert the Skylink Express into Uniper which will be close to EM Parkway and should improve onward connections. c. GN asked if measures can be improved by the Client to provide heavily discounted tickets to get the most out of the Travel Plan. This could even include penalties for parking or rewarding people who car share/use sustainable modes. d. SM confirmed that at EMG1, occupier Travel Plans do include some incentives. Amazon offer a point scheme whereby people who car share can earn points to spend on Amazon gifts. GN agreed the Amazon incentive is a good example of what can be implemented at EMG2. e. SM set out the targets for the Travel Plan that balance both Census information and EMG1 surveys. The proposed targets aim for a 65% car mode share, 18% bus mode share, 8% public transport mode share, 6% active travel mode share and 2% other. f. SHi said that there is a positive story with public transport which has seen significant improvements at EMG1 and whether there were any reasons for this. SM suggested it could be a factor of the £2 bus fare and continued promotion of the services. g. SM said in terms of car share, some occupiers such as Amazon have strong car share levels because the business has set shift patterns which are consistent across all staff. h. GN suggested that with the positive mode shift, parking levels could be reduced at EMG2 plots. IR confirmed that Segro have noticed this with occupiers at other sites requesting less parking because of changes in shift patterns/travel behaviors. i. TBo asked whether the targets could be set to mirror the current surveyed mode share at EMG1. SM said that the proposed targets balance both the targets at EMG1 and what is currently being recorded. The targets are an improvement on EMG1 but they need to be realistic given EMG1 is still only a short way through the Travel Plan process. j. SM provided an overview of the monitoring strategy, which includes various surveys, focus groups, formation of a Sustainable Transport Working Group with reporting to EMG and the Segro Park Manager. k. FA asked what happens if targets are not achieved. PW said that the modelling/mitigation is based on robust trip rates so there should be no issues in terms of impacts on the network. FA acknowledged this however if targets are not being met then this should not be ignored.	

	SM said this is the role of the STWG and Travel Plan Co-ordinators and every 6 months they meet to review the travel data and decide whether new measures are needed to improve certain areas. l. GN said that not achieving targets is a planning compliance matter and asked in the longer term whether there a designated fund that can be drawn down upon to improve mode share. SM said there are two ring fenced funds at EMG1 that are available for the 10-year travel plan and used to deliver measures. This year ITP have run campaigns to improve car sharing, hence if the targets are not being met at EMG2 then the group would meet to agree where funds need spending to improve things. The fund will be calculated as part of the DCO. m. SHa said that the funding requirements for the DCO will be planning obligations that are to be agreed and a mechanism will be stated when funds need implementing. If a similar approach to EMG1 is adopted, then the mode share data is constantly reviewed to understand how funds can be spent to maximise the benefits.	
4	**Modelling Meeting Summary** a. SHi shared a presentation about the wider mitigation strategy. In summary: i. The access strategy remains the same with a fourth arm off A453/Hunter Road roundabout (possibility of still considering a new roundabout further west, but the proposal is what the development is aspiring to provide). ii. The initial mitigation strategy included for works at Finger Farm, EMG1 roundabout, M1J24 and A453/The Green. The works at M1J24 were substantial in parts. iii. The strategic highway solution involves significant works at M1J24 including a new free flow lane with a bridge from M1(S) to A50. The mitigation works have been split between the consortium with EMG2 delivering the package shown in green. iv. Initial modelling has been undertaken which shows that the mitigation scheme would accommodate all developments within the consortium and each individual part of the mitigation should hopefully be suitable for each individual development, albeit aside from EMG2 this needs to be tested. v. A new pedestrian/cycle connection is being proposed between EMG1 and Castle Donington as well as a new footway/cycleway link between EMG1 and EMG2 along the A453. vi. A new car drop off area and bus depot to charge and park buses is also proposed at EMG1.	

	b. SHi confirmed that the presentation slides will be shared with the TWG (since issued on SharePoint)	
5	**PRTM Proforma discussion** a. PW went through the proforma and confirmed that the strategic assessment will be tested using the EMG WISSER model at a 2041 future year. The EMG2 development will be tested in PRTM and BWB have issued proforma v13. This includes the scenarios already agreed including the Freeport and Isley Woodhouse developments, as well as adopting the evening shoulder peak trip rates. b. PW asked if anyone had any further comments on PRTM proforma v13 other than comments already received from GN. AW said there are no further comments but before LCountyC provide formal sign off they still need sight of a note about the EMG1 RFT trips. PW confirmed this will be issued w/c 14/10. c. PW suggested that additional modelling scenarios are required that remove the Isley Woodhouse scheme to test the EMG2 part of the mitigation (shown as the green package). This is because with Isley Woodhouse included, the modelling would still show capacity problems with the green package in place (which would then be alleviated with Isley Woodhouse's part of the mitigation). Hence, there is a step by step process needed to the mitigation strategy demonstrating how EMG2 can mitigate its impacts with or without the other developments in the consortium. A Memorandum of Understanding will be put in place between the consortium to deliver each individual part of the mitigation and the highway authorities. d. HH raised concern with the wider strategic modeling not using PRTM. PW said that a decision has been made higher up that PRTM will not be used and instead EMG WISSER model will be used. IR caveated that agreement to use the EMG WISSER model is still to be confirmed, there are validation issues with the EMG WISSER model that need rectifying before a decision is made with which model is used. This therefore needs to be bottomed out. e. JB thoughts are that the EMG2 Transport Assessment would be split into two parts; part 1 looking at the EMG2 scheme in isolation and what mitigation is needed, and then part 2 looking at the mitigation holistically with the other schemes in the consortium. f. CT suggested that unless trigger point testing is planned to be undertaken of the mitigation scheme, NH may have to include a condition for the work to be undertaken pre-occupation of development and whether this would cause any issues. g. IR confirmed Segro will be asking BWB to carry out trigger point testing work to understand timings for the work.	**BWB** **IR** **BWB**

	h. HH said that a critical part of the programme is agreeing the wider mitigation strategy. However, as there are Departures from Standard whether there is any benefit sharing the drawings sooner rather than later so that they can be reviewed earlier. SHi said that the drawings can be shared before BWB go through the Approval in Principle process to reach an agreement on any departures.	**BWB**
6	**Programme** a. PW re-iterated IR comments on the programme and that the plan is for a January/February 2025 public consultation with the DCO submission planned for the end of Q1 2025, albeit a lot of work remains required between now and then.	
7	**Next steps** a. PW summarised the key next steps: i. BWB to issue the EMG1 RFT note ii. BWB to update the proforma to address GN comments and get AECOM back up and running with modelling (since issued). iii. BWB can populate SharePoint and details for the SoCG. iv. BWB to produce another proforma to test alternative scenarios and any trigger point testing, in parallel to Segro determining if the wider strategic solution modelling is to remain to be considered using the EMG WISSER model. b. PW confirmed that BWB would still like to explore the Vision and Validate assessment focusing on mezzanines and associated trip generation. PW asked if GN could review an email sent of 04/9 as a result, to help inform said process.	**BWB** **BWB/Segro** **GN**
8	**AoB** a. SHi confirmed that the presentation of the strategic mitigation scheme is on the SharePoint folder. From a NH perspective, the scale of works could fall within a Nationally Significant Infrastructure Project and the Clients legal advisers are going to establish this. It doesn't change anything physically but it does change the structure of the DCO and underpinning policies.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 14 NOVEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Paul Wilson (PW) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Steve Freek (SF) – National Highways (NH)
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Laura Good (LG) – LCountyC Network Data Intelligence
Matt Corner (MC), Simon Hilditch (SHi) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of October's meeting minutes** a. PW shared October's meeting minutes on screen and summarised the following actions: i. September meeting minutes updated with AW comments. ii. Trip generation details issued. iii. Proforma v14 agreed and modelling now being undertaken by AECOM. iv. Trigger point testing is noted and to be considered further. v. SHi has NH/LCountyC comments on the design scoping note and will refer back. vi. Rail Freight Terminal note issued. vii. Vision and Validate was covered at the modelling meeting but is also an agenda item to be covered further. b. PW asked if anyone has any further comments on the minutes. No comments received hence these are agreed.	**BWB**
2	**Client update** a. IR provided an update on the DCO. Timescales for public consultation	

	remain as January/February 2025. b. The strategic solution with regards to M1J24 is a top priority for the consortium. Segro have been struggling to receive clarity and updates with regards to the modelling, and were initially looking to use the WISSER model (as per the conversations led by Midlands Connect) but progress/agreement have stalled, so the proposal is to now use the 2019 PRTM model. BWB produced a proforma several months ago which has been updated and will be shared. c. CT confirmed she has been asked to attend a meeting on 25/11/24 about strategic modelling and which model to use. TBe has received the same invite from the East Midlands Freeport. IR acknowledged the meeting, which he was unaware of, but Segro has made the decision to use PRTM because of timescale pressures. d. SHa asked if the 25/11/24 meeting invite had been sent to the local highway authorities. CT confirmed that it has been sent to LCountyC, NCountyC and DCityC. DS was not aware of the meeting but will speak to Kevin Sharman. e. JB set out that he considers this to be the right decision. HH also confirmed that the use of PRTM is positive as there were concerns about how the two modelling outputs would tie together. f. PW suggested that given EMG2 and Isley Woodhouse are using PRTM then there should be logic in the wider strategic modelling using PRTM.	**DS**
3	**Wider Strategic Modelling** a. PW shared the PRTM proforma v3 on screen, which covers the wider strategic assessment. The assessment will consider all planned development at a 2041 future year, which aligns with the end of local plan period. The proforma includes the following information: i. Access details have been obtained for each of the developments. ii. Trip generation data has been received for each of the developments individually. BWB are not representing all of the developments and therefore do not want to get into protracted discussions about the trip rates as these should have been largely agreed elsewhere. iii. In terms of Land West of Castle Donington and Coaker Land schemes, it is understood that trip rates/traffic have not been agreed with the TWG, but the details set out reflect the best information available. There will already be assumptions in PRTM that can be used as a comparison. iv. As well as traffic impacts, the mitigation could also include other sustainable transport measures such as the extension to the tram, which is therefore referred to. v. The pre-modelling output boxes have been ticked and whilst they require agreement, PW set out that we do not want	

	protracted discussions to agree these details, again given the significant work that has been provided to date by all the various schemes, and the fact that Segro have taken this on themselves to unlock this current impasse, and should be supported in doing so. b. IR asked if the authorities could therefore agree the content as quickly as possible to help keep momentum going. c. PW asked if anyone had any initial comments. PB mentioned that AECOM will need traffic data in vehicles rather than pcus. PW suggested that the current proforma should be acceptable but will check and circulate a final version for agreement (subsequently sent later in the day).	**NH/LCountyC /NCountyC** **BWB**
4	**Sustainable Transport** a. PW confirmed BWB issued draft reports on behalf of ITP on 10/10/24 via SharePoint and would be grateful for any comments. SM has since suggested an end of November deadline (with comments received from AA on 15/11/24).	**NH/LCountyC /NCountyC**
5	**Modelling Meeting Actions** a. PW went through the actions from the modeling meeting that took place on 06/10/24. i. Trip generation and rail freight terminal notes have been issued and we would be grateful for agreement on those. ii. It is understood that CT is best placed to sign off information from a NH perspective. iii. In terms of Stage 1 modelling, BWB are happy to schedule a meeting with AECOM to discuss modelling outputs. iv. PW touched on proforma v14a and uncertainty log v7a, the difference being that they include additional scenarios that remove the Local Plan sites. These are required for both transport and noise/air quality. v. The purpose of the Vision and Validate assessment has changed because we are now on a fixed path for mitigation. It will now focus on mezzanine floorspace to understand how much additional floorspace could be built without compromising the agreed traffic generation being tested in the modelling and evidenced using the information from EMG1. The current trip generation applies 100% of the trip rates to the 100,000sqm mezzanine floorspace, which is significantly robust. The parameters plan for the DCO will then be amended to include the final GFA to be applied for. We would welcome feedback on the information BWB issued on behalf of ITP. vi. BWB had a conversation with JM and PB about Covid sensitivity factors and await further clarification on the best approach for this.	**NH/LCountyC /NCountyC** **JM** **NH, LCountyC, NCountyC** **JM/JB**

	vii. BWB will be going through the programme and will issue a revised version once available. b. PW asked if anyone had any questions on the modelling meeting actions. No comments received.	**BWB**
6	**Next steps** a. PW confirmed the next steps are mainly related to the modelling meeting notes, set out under Item 5. b. That is aside from the strategic traffic modelling requirement set out in items 2 and 3, progress of which now needs expediting post the decision to use the 2019 PRTM model. Hence agreeing to the Proforma is a top priority.	
7	**AoB** a. CT said in terms of mezzanine, would BWB provide evidence for reductions in trips associated with mezzanines. PW referred to information sent on 23/10/24 in response to questions raised by GN which is what should be referred to. b. FA has received the information and will draft a response by email (email since received by CT on 18/11/24). c. HH said that in terms of mezzanine floorspace, the Hinckley NRFI DCO proposed 850,000sqm GFA, of which 650,000sqm was ground floorspace and 200,000sqm was mezzanine, with no reduction in trip rates for the latter. d. HH asked whether the modelling meeting notes will be submitted with the DCO because they are in email format. PW saif that BWB can formalize the notes into formal meeting minutes so they can be submitted. e. PW summarised the information that is forthcoming. The base VISSIM model was agreed with NH and it is understood LCountyC are happy to follow NH advice on this. A lot of further VISSIM modelling work has been undertaken using the previous 2035 outputs to inform decision making about mitigation. This has flagged up a couple of things that will need updating and will therefore be shared with the TWG. f. HH asked what the updates are. PW confirmed that colleagues have said they are simple updates but will revert back with the detail. g. At the start of the meeting, PW asked TBe about NCityC's involvement. TBe suggested PW speak to Chris Carter. PW subsequently spoke to Chris Carter on 14/11/24 who confirmed that he was happy for the TWG to continue as is, albeit would be happy to receive any key updates, should we consider it necessary.	**Jacobs** **BWB** **BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 12 DECEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN), Alain Chandler-Hurst (ACH), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC), Simon Hilditch (SHi) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Steve Freek (SF) – National Highways (NH)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of November's meeting minutes** a. PW shared November's meeting minutes on screen and summarised the following actions, the majority of which are included in the agenda for this meeting: i. The highway design pre DCO scoping note was issued by BWB. ii. DS will catch up with TBo about the latest Midlands Connect meeting. iii. Draft STS and FTP documents have been issued on behalf of SM, and comments have been received from AW and JB. iv. A number of notes have been issued within the Stage 1A modelling pack and signed off by NH, with comments received from AW yesterday. v. BWB have liaised with AECOM about PRTM modelling outputs. vi. BWB/AECOM have reviewed traffic data to inform the covid sensitivity test. vii. A revised programme has been issued by BWB. viii. Information has been received from CT regarding mezzanines and the vision and validate assessment for BWB to review and respond to. ix. Further information will be provided by VD on the base VISSIM model. b. PW asked if anyone has any further comments on the minutes. No comments received hence these are agreed.	

2	**Client update and PRTM 2019 vs 2023 models** a. IR confirmed that the public consultation has been delayed to February 2025 because the transport modelling programme has been extended and because there are various notices/letter drops and procedural issues that need to happen prior to the consultation, which will be difficult to undertake around Christmas. b. IR summarised the current position in that an agreement has been made with the TWG to use the PRTM model but LCountyC have advised that a 2023 version is now available, although we have received different views from AECOM, hence appear to be going round and round in circles. IR asked if an update could be provided on when the 2023 model will be available, if it is validated, and how it would affect the current programme if it was used? c. PB said that if Segro has been told the 2023 model is available from those higher up within LCountyC then it is available. The confusion over availability comes down to corporate reasons, but progression has been quicker than expected, meaning a base year model should be close to being signed off and is 'pretty much good to go' and 'exciting'. A general LMVR needs to be produced by AECOM followed by a site specific LMVR to inform the EMG2 modelling, if a decision is made to use the 2023 version. However, PB cannot comment on programme implications which he will defer to AECOM on. d. AD said that AECOM defer to LCountyC on which version of the model is to be used and when it is available for use on specific planning applications. IR reiterated the concerns with delays to the project, which Segro simply cannot afford, hence queried what impacts it would have on the programme. AD confirmed he is not clear as to whether this relates to the current EMG2 commission or wider strategic modelling work. e. PW suggested that further information is needed from LCountyC rather than AECOM on the status and requirement for using the 2023 model, seeing as it is their model. f. HH said that LCountyC's position is that the best model available should be used and so if the 2023 version is ready then that would be the preference. It is fair to consider implications on the programme. g. PW sought confirmation whether the 2023 model is indeed available to use as of tomorrow, as intimated, and asked if NH are happy for that version to be used? CT confirmed that NH have not seen or heard anything with regards to the new 2023 PRTM model, hence prior to running it for EMG2 they would need to review the model to check it validates. This would therefore have timescale implications on the programme. h. JB view, based on experience working on a lot of other DCO's, is that this issue crops up regularly and it will delay the project if we use the	

	2023 PRTM model. We therefore need to weigh up the benefits against the implications on programme and take a considered view as to whether it would make that much of a difference, especially if we all have comfort with the 2019 model. NH are comfortable to maintain with the 2019 PRTM model but suggested IR obtains lawyers opinions and to possibly carry out a sense check in the future to understand whether there are any fundamental differences between the 2019 and 2023 PRTM models to cover ourselves at the Examination and take a considered view. JB would however counsel against revising everything and starting again. i. IR said that the Freeport timescales require units to be occupied by 2031 and the current programme is already challenging and cannot afford for it to slip anymore. IR therefore asked what the time implications are of using the 2023 PRTM model and whether this would be weeks or months. JB said that in his experience it would incur months of delays on the programme. j. HH asked if the PRTM 2023 model has been discussed with the Freeport Board? IR said that it has not formed part of conversations, but the Freeport timescales are based on occupying units which need to be completed by 2031. EMG2 is the only scheme that is likely to meet the Freeport timescales; they are totally reliant on this site, hence is of significant importance. k. HH asked whether the PRTM 2023 version would be used for the wider strategic work. IR said that if it aligns with the programme timescales then this is possible but timescales need confirming before a decision can be made; he is not against the principle, but it has to align timescales wise. l. PW referred back to discussions held and documented in the November meeting minutes where an agreement was made to use the 2019 PRTM model, at considerable expense to Segro, and we are days away from starting to receive the outputs. Whilst it was highlighted at said meeting that by the time we reach examination, PRTM will have a version with a 2023 base year (item 5b of said meeting minutes) it was discussed that this would not be available until 'summer 2025'. The Covid sensitivity test work has also compared 2019 and 2023 traffic data which shows a reduction in traffic and so the PRTM update may not be a significant issue. Therefore, undertaking a sensitivity test using the 2023 PRTM model at the appropriate time may be the best option, which IR agreed with. m. PW reminded everyone that the PRTM modelling has already been re-visited once, which was previously due to project delays. However, this issue is different because it is out of the Clients control who has gone through all the necessary steps on an agreed basis to get to the current position, with BWB expecting outputs from AECOM in the next few days, hence the frustration, which we hope can be appreciated. This issue about the 2023 PRTM model had only been raised this week (only 5 weeks after it was suggested that it would not be ready until 'summer	**AECOM**

	2025' at the November modelling meeting). n. IR said the overall message appears to be that we are too far along using the 2019 model. If we now move to the 2023 version then this would add months onto the programme because the model needs to go through the validation process and agreement with relevant stakeholders before it can be used. Therefore, the plan is to remain with the 2019 model and if there is time to carry out a sensitivity test using the 2023 model prior to Examination then this can be undertaken, asking if anyone disagreed? o. HH raised concerns with this approach. HH suggested that it would be in nobodies interest to be questioned by an Inspector on the decision to not use the 2023 PRTM model without seeing the evidence on timescales/programme implications and therefore asked if this information can be provided and considered before a decision was made. p. IR therefore asked if AECOM could confirm whether the 2023 PRTM model is ready to use now, what they would need to revisit with regards to the work completed to date and how much it would cost. In addition, clarification is required from everyone on their views of using the 2023 model and whether they are comfortable with it, within the next few days. IR continued by stating that in the meantime we need to continue with the 2019 version, and that any delay is unacceptable. q. SHi suggested that similar to JB comments, we could run a sensitivity test using the 2023 PRTM model at a later stage to validate the work undertaken and hopefully allay HH's concerns. The hope being that this could be agreed between submission and examination. r. AD said AECOM can compare the performance of the 2019 and 2023 models in the local area and put together a revised programme to set out the implications of using the 2023 model. s. IR reiterated that we need to continue with the 2019 work in the meantime but we need evidence with regards to validation, to allow us to set out the modelling journey story, including the 2023 sensitivity testing, PW confirmed that it will be a simple process to set out the story up until now with regards to the process which has been adopted. t. SHa asked if AECOM's note will also pick up on the points CT made about NH reviewing the model validation, as this will also impact programme/timescales. IR suggested this would be separate to AECOM's works to that but agreed the timescales for this also need to be understood. SHa set out that we cannot go into Examination with the potential for LCountyC to say late in the day that they were never comfortable with us using the right model; it won't help anybody. We need to be clear as to what we are doing. u. IR was of the opinion that he cannot see how the approach adopted to date can be challenged, seeing as agreements have been reached	**AECOM** **AECOM**

	on everything, which, up until a few days ago, as reiterated by PW, was a non issue. The right decisions were made at the right time, and that should hopefully continue to be the case. v. IR asked AECOM how long it would take to provide the evidence on timescales. AD said that he cannot provide fixed timescales now, but the work will involve a base year model review and prepare a note for relevant stakeholders, would be mid January. IR suggested that at the very least this exercise would not be completed until February/March 2025 as a result, which does not work with the current programme and Freeport timescales. w. JB said that if a decision is made to carry out a sensitivity test using the 2023 model either just before or during the Examination process, then there are risks involved the later matters are agreed, and it will also incur further costs. Therefore, we need to be pragmatic about the decision and obtain legal advice before going into the Examination however understanding the time implications of the 2023 model would be useful to know now. IR agreed and said that if we can run models in the summer once it is ready then this is an option. x. AA asked whether there are concerns with running the 2023 model and presenting the findings at the Examination because it involves submitting new evidence. y. SHa said that presenting new evidence at Examination could be an issue and we are best going into the examination process knowing the implications of the 2023 model. The evidence is typically front loaded so there is a significant risk running models after the Examination. z. GN asked if the LMVR for the 2023 base model is written so that Jacobs can resource this immediately. PB said that this is still being written and not available right now. AD confirmed this is the case.	
3	**Wider strategic modelling planning data assumptions/proforma** a. PW said that from the last meeting a number of actions were set to obtain revised planning data to inform the wider strategic modelling, however questioned whether this would also affect the release and validation of the 2023 PRTM model, which surely would have to take into consideration such matters? b. SHa asked if the planning data assumptions are gaps in the PRTM model. PW said that it is outstanding information required for the uncertainty log and base model assumptions but that a lot of work has been undertaken in the background to deal with this over the last week, with the programme assuming that the proforma for the strategic modelling work would have been agreed today. c. TBo said that his email sent on 26/11/24 regarding Nottinghamshire and Nottingham City data remains valid. The Greater Nottingham Strategic Plan has now been published and is going to Examination in Spring	

	2025. The updated values reflect planning data across Rushcliffe, Gedling, Broxtowe and Nottingham City. If AECOM has any queries, then they can liaise directly. It was however agreed that PW would contact Matt Gregory at NCityC to check all is in order from their perspective (email sent later that day).	**PW**
	d. PW went through updates on the Leicestershire planning data received from PB, summarised as follows: i. All data has been received from Blaby, Melton and Oadby. ii. Data from Charnwood and North West Leicestershire is to arrive in January 2025. iii. Requests have been made to Harborough and Hinckley and Bosworth but any changes are likely to be trivial. iv. No feedback has been received from Leicester City but AA agreed to liaise directly with the planning department to try and get an update (PB to confirm details as to who he liaised with to assist).	**AA/PB**
	e. PW asked AECOM if they have any updates from South Derbyshire District Council. JM said the last response was from April 2023 (sent by Richard Groves) but will follow that up (they have not as yet been contacted post the December modelling meeting).	**AECOM**
	f. PW has contacted Derby City and is waiting for a reply, which he will follow up on. A response has been received from Erewash and there should be no changes needed to the current assumptions.	**PW**
	g. SHa said that he and IR are meeting North West Leicestershire tomorrow so can assist if required. PB thanked SHa but said that the information is unavailable at the moment so there is no need to chase.	
	h. AA asked when the planning data is needed. PW said the hope was that an agreement could be made today but that won't now happen and other districts in Leicestershire can't provide information until January so we have until early in the New Year.	
	i. PW thanked everyone for their efforts and that good progress has been made to receive updated planning data assumptions but asked if a final push can be made to obtain any outstanding information.	
	j. PW went through the development details for all the strategic sites to inform the proforma, including the quantum and land uses. There are aspirations to extend the tram route to EMG2 with stops in between at key locations. BWB have liaised with AECOM to understand how this can be modelled in PRTM, which is possible but requires a number of assumptions being made. PW asked what else is required to get the proforma agreed.	
	k. No further comments received but FA said that Jacobs will review the email from PW setting out the development quantum and land uses so will respond to that. BWB can append that email to the proforma if	**FA/AW/TBo**

	required. Comments also remain required from LCountyC and NCountyC.	
4	**Stage 1 modelling outputs (proformas v14 and v14a)** a. JM apologised for the delay in issuing model outputs which was due to an issue identified on Sunday. The models are running but it will be next week until outputs can be issued. b. JM did say that his colleague has drafted an email setting out the format of how the outputs will be sent that can be shared upfront. PW thanked JM and said that would be useful, for BWB to look at this afternoon (an email has since been received from AECOM). c. GN asked for clarification on the tram extension and certainty about its delivery and how it will be modelled in PRTM. PW said that BWB have been asked to include it as a scenario, however in terms of certainty there is no fixed path/information. The tram can however be included in PRTM using a number of assumptions, but we will be commissioning a with and without tram scenario to cover both bases. d. GN thanked PW and said that Jacobs will wait for the details about how the tram will be modelled. e. IR confirmed that the highway mitigation will not hamper the future expansion of the tram. The work Steve Johnstone is undertaking includes land to deliver the tram so the infrastructure will be there to allow it to happen but there are many unknowns about how or when it will happen.	**AECOM**
5	**Sustainable Transport Strategy and Framework Travel Plan update** a. SM thanked AW and JB for comments on the two documents and confirmed that emails have also been exchanged with AA. ITP will update the documents once all comments have been received and produce a log to show how they have been addressed. b. SM asked if there will be any further comments from any other authorities. TBo said that NCountyC will comment so will take this away as an action. SM said she would wait for NCountyC's comments before issuing revised documents to cover everything in one go.	**NCountyC**
6	**Vision and validate assessment** a. PW referred to CT email sent on 18/11/24. BWB are working with ITP to look at the difference in the findings with Unit 4 (Kuehe + Nagel West) removed, which was identified as an anomaly. BWB will refer back once this has been undertaken.	**BWB**
7	**Covid sensitivity assessment** a. MC said that AECOM and BWB have compared Webtris data on the	**BWB**

	SRN around the site between 2023 and 2019. The assessments compared PCU flows across April, May and June (AECOM review) and total vehicles across March/October (BWB review), which showed that overall traffic flows have reduced. BWB welcome any feedback on the data but intend to produce a note summarising the data as a way of assessing impacts of Covid rather than testing it in PRTM as a separate scenario. b. PW said that this may also relate to the discussions held earlier about 2019/2023 PRTM models in that traffic flows have reduced. c. TBo asked if there is information for the A453 in the northbound direction. MC said that there is only a counter point recording southbound traffic, which is why northbound traffic has not been provided. d. VD asked if the Webtris data for 2023 has been used to validate the new PRTM base model. JM said that a number of data sources have been used which includes both LCC C2 and Webtris counts. e. VD said that given the 2023 flows are shown to be lower compared to 2019 asked if the current modelling be worst-case in terms of background traffic volumes and whether a comparison has been undertaken between the two PRTM base models. f. JM said that the networks are different between 2019 and 2023 models, the 2023 model is an open road base with more nodes but appreciates the point that 2019 could be more robust but this has not been confirmed. VD asked if this is an easy comparison to make to understand the differences. JM said it is probably best to compare the LMVR and journey times but is something that AECOM can look at.	**AECOM**
8	**Revised scope of highway design pre DCO report** a. SHi said that the report has already been updated with comments from JB and asked whether each individual authority can send comments in one go for expediency. SHi asked FA if there is anything significant to discuss from her comments. b. FA acknowledged the request for one set of comments to be provided but that the comments should be straight forward to review/consider. c. SHi said that he will issue a revised report in early January taking on board FA comments.	**BWB**
9	**VISSIM base model update** a. VD confirmed the revised base VISSIM model is being fine-tuned and will aim to be issued early next week once comfortable with how it is running.	**BWB**

	b. GN thanked VD and asked for the revised base VISSIM model validation report to accompany the model and a technical note or list of changes made with a reason for the update and any implications for Jacobs to easily review and sign off. c. VD said the changes are listed as a section in the report. GN asked for his colleague Lee to be copied into the email who will be reviewing the details.	**BWB**
10	**Stage 1A modelling sign off sheet** a. MC thanked CT for sending the signed version across and AW for the comments received yesterday. b. MC shared the comments from AW, in summary five of the six documents are broadly agreed in principle with LCountyC (with some being deferred to NH). The outstanding document to be agreed is the furnessing methodology note and so it was suggested that LCountyC sign the Stage 1A modelling sheet but provide a comment saying this excludes the furnessing methodology note, given that NH and NCountyC are comfortable with it. AW confirmed he can do this. c. MC clarified that NH have also confirmed in the comments section that NH have agreed with three other documents (Local Model Validation report, Trip Generation core assessment and the EMG1 rail freight terminal) although these will be formally signed off through the Stage 1B sign off pack. d. GN mentioned that the VSSIM LMVR will be superseded with the updates VD is carrying out. MC acknowledged this and confirmed that the Stage 1A modelling sign off sheet references report version P3, which will remain unchanged, and the updates will be set out within version P4 which can be included in the Stage 1B modelling pack. GN agreed with this approach but that we need to be cautious to ensure that this is clear. e. MC asked NCountyC if they are comfortable with the six documents. TBo said that they haven't reviewed the VISSIM work but would defer to NH on this, so NCountyC have no issues and once confirmation has been received from LCountyC then this can be signed. f. HH however questioned how the details can be signed off now because there is still a question over the PRTM model version being used. MC said that the Stage 1A documents all include revision references, which relate to the 2019 PRTM model, so if there are changes to the modelling approach then documents will get superseded which can be covered in new sign off sheets. g. HH reflected on the approach taken to date and whereby a mitigation strategy has been developed in advance of strategic modelling being undertaken with the intention that a strategic modelling exercise would be used to demonstrate that the strategic mitigation proposals are	

	appropriate. On this basis the sign off sheet for Stage 1A item is therefore not on the critical path on the basis the work has been progressed at risk. Sign off is therefore required ahead of Examination so would like to withhold and wait until the modelling strategy is confirmed before signing the Stage 1A modelling sheet. There appeared no merit in doing so now. SHa reiterated that the approach is to continue using the 2019 PRTM model because of programme requirements. h. SHi asked if HH can confirm the approach being undertaken is acceptable subject to there being no changes to the PRTM modelling. HH said that he would like to liaise with colleagues and wait for a confirmed approach with PRTM before signing the Stage 1A modelling sheet. i. DS said that NCountyC would await the outcome of these discussions before signing off the Stage 1A modelling sheet.	
11	**Programme** a. PW shared an updated programme which has been circulated to the TWG. The public consultation is now set for February 2025 based on the 'green package' of mitigation. However, the current timescales were set on the basis of the PRTM outputs being received early this week and the proforma for the wider strategic modelling being agreed today. Having confirmation of which model version is to be used is therefore critical for timescales.	
12	**AOB** a. SHi asked CT if she could send an instruction to colleagues at NH to formally engage with BWB on the geo-technical aspects of the mitigation. CT confirmed she can send an instruction. b. SHi also asked about abnormal load contacts. CT said NH have a webpage with details or message the general inbox.	**CT** **SH**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 9 JANUARY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Catherine Townend (CT) – National Highways (NH)
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC), Simon Hilditch (SHi) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Steve Freek (SF) – National Highways (NH)
Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of December's meeting minutes** a. PW shared December's meeting minutes on screen and summarised the following actions, the majority of which are included in the agenda for this meeting: i. Further discussions have been held on which version of the PRTM model is to be used. ii. Information has been shared on the planning data assumptions for the wider strategic modelling. A proforma has been shared which NH are comfortable with subject to agreeing which version of the model is to be used and a minor change to the Plot 16 traffic numbers. iii. Stage 1 modelling outputs to be discussed. The December minutes should have included an action for LCountyC at point 10H, which will therefore be updated and re-shared. iv. Further information has been shared on the mezzanine floorspace and associated trip generation. v. A document has been shared setting out the Covid sensitivity details. vi. SHi was on the call to discuss design related matters and provide an update on mitigation. vii. Stage 1A modelling sign off sheet is still outstanding from LCountyC and NCountyC. viii. CT confirmed that instructions have been sent for NH to	**PW**

	engage on the geo-technical aspects of the mitigation. ix. SHi has contacted the abnormal loads team via the general inbox but has not received a response. CT to follow up and provide a direct contact. b. PW asked if anyone has any further comments on the minutes. No further comments hence were agreed, except from HH, who said that LCountyC still need to review them (an updated version, including for point iii above, was issued on 9th January 2025)	**CT** **LCountyC**
2	**Client update** a. IR said the statutory consultation period for the DCO needs to be a minimum of 28 days and Segro have scheduled it to run from 3 February 2025 to 14 March 2025, hence longer than statutory 28 days. There are two public exhibitions planned; one at Diseworth Village (10 February) and a second at the Hilton Hotel (25 February). Segro will send out individual invites via Royal Mail to all households covering a significant area. b. IR said that in terms of the M1 to A50 free flow link, the consultation will refer to the option of bridging over the A453. However, drainage issues need considering for the option of going under and associated pumping stations. c. JB said that he has contacted the drainage team and will follow up on this for further information. d. SHi said that the risks associated with going over and under the A453 will be set out in the consultation. There appear to be no design standards relating to pumping stations and so further clarity is required. JB said that this will form part of his discussions with the drainage team. e. IR said that timescales are dictated by the transport work but aiming for a Spring 2025 submission. f. HH asked if the authorities will receive formal notification of the consultation dates and if there will be sight of materials beforehand. g. IR said that Segro can share the boards beforehand and will email the authorities with invitations next week. h. HH asked if there will be sight of the highway mitigation scheme before the consultation. SHi said that this forms an agenda item in the meeting. i. MC shared a presentation setting out key details for the consultation, which BWB will share with the TWG (alongside these minutes). j. SHi suggested whether the authorities could arrive earlier at the Hilton Hotel event to meet face to face at approximately 1pm before the consultation starts at 2pm.	**JB** **IR** **BWB**

3	**2019 vs 2023 PRTM model** a. PW asked if LCountyC NDI have considered timescales for moving to the 2023 model and if AECOM has compared the LMVR and journey times for links around the site. b. PB said that PRTM 2023 is available and has a Freeport area specific LMVR ready for circulation. It has a lot of journey time routes, screenline data and validates well around the Freeport area. However, timescales will be the key point of discussion but from LCountyC NDI point of view it is the best model to use, so a discussion needs to be had over which evidence base will allow for a smoother path through Examination and where it is picked up, Stage 2, wider strategic assessment etc. c. PW said that PRTM 2023 could potentially be picked up for the wider strategic modelling. However, presumably NH would still need to review the model and the planning data assumptions need bottoming out beforehand, hence there are still processes that would still need to be undertaken before the modelling can be run. d. PB said that the timescales in agreeing the final modelling inputs may coincide with NH review of the model. e. JM said that an EMG2 base year model validation report would be required, similar to what was produced for the 2019 model. This would take approximately 2 weeks, before the model is ready to be shared with NH for review.. f. PW summarised his view on timescales and that before the modelling can be started there would need to be a base year model review (circa 2 weeks), a NH review of the model (GN confirmed a minimum of 4 weeks) and then planning data assumptions would feed into the above timescales. Hence overall if we were to switch to the 2023 model then it would be March 2025 at the earliest before modelling can be started, with circa 2 months thereafter before outputs start being received. These timescales align with what PW set out in a Statement IR sent to Rebecca Henson, which Segro are waiting for feedback on. g. HH asked what modelling scenarios will be included in the Transport Assessment and which scenarios will be delayed until May 2025 if we were to switch to the 2023 version. h. PW said that Stage 1 and 2 will be included in the Transport Assessment. The wider strategic work will be covered in a separate Transport Assessment produced by Lawrence Walker. It is the wider strategic work that would be impacted by timescales. i. HH said that there is a risk if the Stage 1a/b modelling and mitigation do not align with the wider strategic solution. PW said there is always a risk but the current mitigation within the 'green package' forms part of	

	the wider strategic solution. j. HH asked if the programme timescales align with the wider strategic work and what are the timescales for coming up with the mitigation and testing it through PRTM. The current understanding is that the Stage 1a and 1b scenarios will not provide an understanding of mitigation requirements for EMG2. k. MC summarised the scenarios being tested in PRTM; i. Stage 1 includes the core 2028/38 forecast year scenarios; ii. Stage 2 includes the Covid assessment, any vision and validate assessment (albeit this should not be required) and EMG2 mitigation i.e. green package; and iii. Wider strategic assessment considers all Freeport sites and associated mitigation for which the green package forms part of. iv. Hence, the Stage 2 work includes testing the mitigation proposed by EMG2. l. IR said that the wider strategic work aims to demonstrate that should all the sites come forward then this is how the mitigation would come together and the work being proposed by EMG2 would form part of that larger scheme. m. PW said that the plan is for the green package to mitigate the impacts of EMG2, so regardless of what schemes ultimately come forward there is a scheme to accommodate EMG2. n. PB asked if the wider strategic assessment is a different workstream to the EMG2 DCO submission? o. PW confirmed it is and said that the wider strategic assessment is subject to a separate PRTM proforma. The position is that EMG2 remains with the 2019 model given that outputs are expected imminently. The question is then what version of the model is used for the wider strategic assessment, given modelling has not officially started. p. PB said that all new projects need to use the 2023 model version and given work has not started on the wider strategic assessment, then the 2023 model will need to be used. q. IR said that Steve Johnstone has been asking about which version of the model to use for some time now and so the delay in agreeing proforma details to align with the availability of PRTM 2023 seems unethical. r. HH asked whether the wider strategic work would form part of the DCO submission. PW said that it will be an ancillary piece of work that needs agreeing collectively but it is separate to the EMG2 DCO. s. SHi/IR said that the aim of that work is to demonstrate what mitigation	

	would be required to accommodate all planned development and how it would fit together. This should give the authorities comfort that developers are working together to come up with a significant solution at M1 Junction 24 to accommodate all planned growth in the area. t. IR said that the wider strategic work was undertaken by Segro at good faith to show the authorities how all the schemes could come forward together and we could have simply submitted a Transport Assessment purely for EMG2. u. HH said that if the wider strategic solution does not form part of the DCO submission then a sensitivity test could be undertaken that tests the EMG2 mitigation in PRTM 2023 version to check that everything aligns. v. PW said that the hope was for the PRTM proforma for the wider strategic work to be agreed last month and there have been changes in the understanding of the timescales for when PRTM 2023 will be available. The wider strategic assessment is tied to EMG2 for which strategic modelling has been commissioned already. w. HH said that the authorities have not seen the mitigation schemes and there will be a process to agree the mitigation, which does not form part for the current programme. x. SHi said that the mitigation details will be shared now so that the details can be discussed/finalised alongside the PRTM modelling, with the TWG but also NH SES. y. PW said that Segro/BWB are expecting to receive a response from Rebecca Henson shortly and it will then be for BWB/Segro to make a decision as to how the modelling is progressed (email since sent on 13th January 2025). z. IR agreed, but said that the EMG2 modelling already undertaken would need to remain with the 2019 version asking whether we can therefore agree the PRTM proforma for the wider strategic work now? aa. PW said that the proforma can be agreed as it is separate to the version of PRTM being used. bb. HH asked if the proforma can include a scenario that tests the impacts of the EMG2 green package as a sensitivity test in PRTM 2023. PW acknowledged this point and agreed that it comes down to which version of the model is used and said that BWB will liaise with Segro on timescales and which model to be used.	**BWB** **BWB/Segro** **BWB/Segro**
4	**Highway design work** a. SHi shared drawings of the highway mitigation which will be shared with the public consultation materials to which comments would be appreciated and provided an overview of what the works include.	

	The scope of highway design pre DCO document then sets out what BWB are trying to achieve. <u>Sheet 1 – Site Frontage works</u> b. SHi said that the access strategy is to have a fourth arm from the A453/Hunter Road roundabout and associated widening, with a bus interchange provided within the site. However, BWB will consult on the new roundabout as a secondary option. c. SHi explained the works on Hyam's Lane, which would change from an all-purpose highway to a dedicated walking/cycling link with improved signage. The majority of the link will be unadopted and maintained by Segro. The route forms part of a future National Cycle Route with Sustrans. All existing field accesses would be closed. d. SHi said that a plan showing the Public Rights of Way strategy will be provided. There will be a new signal-controlled crossing at the EMA junction. e. SHi said that a new footway/cycleway (adopted) will be provided along the A453 connecting EMG2 with EMG1. A Toucan Crossing will be proposed on the A453 at the site frontage. f. HH said that the new access has not been modelled in PRTM as it is the secondary option. SHi said that it is a minor loading point change that should not affect the strategic modeling work significantly. HH said that it would affect the existing A453/Hunter Road roundabout. g. SHi explained that there are also minor works at the A453/The Green junction, which involves providing a short flare to allow two vehicles to sit side by side at the give way line. h. HH asked whether emergency access has been considered and if it is shown on the plans. i. SHi said that the plan is for emergency access to be via Hyam's Lane as it will be a surfaced route of suitable width. j. HH said that part of the Hyam's Lane will be stopped up and so the TRO will need to be considered around the adopted highway that will also need detailing on the plans. k. HH said that access via Hyam's Lane to Donington Services will need considering. SHi said that BWB has consulted with Moto but due to security reasons from NH there cannot be rear end access to the services. However, an alternative route will be provided to the main entrance at Finger Farm roundabout. From walking the current route along Hyam's Lane, it is inaccessible anyway, so whilst the route will be longer it will be a better quality route.	**SHi**

	Sheet 2 – Finger Farm to EMG1	
	l. The A453 footway/cycleway would use part of the former A453 road where possible and include sections of new construction elsewhere. Some of the route forms part of the former L45 footpath.	
	m. SHi said there are existing gradient issues that can be addressed by aligning the footway/cycleway around the existing layby and within the EMA land. This requires third party land to avoid an existing lay-by, which is to be retained.	
	n. The northern section close to EMG1 uses part of the old A453 road within NH Trunk Road land. The final connection to EMG1 will use an area of earthworks installed as part of EMG1 for future walking/cycling connections. These proposals will therefore provide wider connections to Kegworth as well as other settlements and extend the National Cycle Route, so will bring added benefits.	
	o. SHi said that the EMG1 roundabout will be amended to provide two lanes into EMG1 from the A453 southbound. A new pedestrian crossing is proposed on the EMG1 exit connecting the new drop off layby with the bus interchange.	
	p. SHi asked if anyone has any initial comments on this part of the scheme. No comments received.	
	Sheet 3 – M1 Junction 24	
	q. SHi said that the largest element of mitigation comprises a new free flow link from the M1 northbound to A50, which is currently shown bridging over the A453 (but there is also an option to go underneath). The link would be a single lane interchange. The proposed merge arrangements with the A50 need considering with the existing 2/1 merge from the roundabout. It is likely that the new free flow link will be a lane gain on the A50 before dropping back to two lanes further north away from the junction. This will need discussions with NH SES to agree the details as it will likely form a departure.	**BWB**
	r. SHi said that there are space constraints with the diverges on the M1 and weaving lengths from the A42. This has been looked at in VISSIM and will be a critical part of the design for NH to review.	
	s. SHi said that hard shoulders are provided within the proposed layout which meet current standards. They will therefore be re-introduced on a section where they were lost as part of the Smart Motorway scheme.	
	t. SHi said that the weaving section on the M1 southbound/A50 section will be widened to three lanes. When BWB carried out works at M1 Junction 24 as part of EMG1, there was a departure on the weaving length that will continue to need consideration.	**BWB**
	u. SHi said that there are also minor changes to road markings and	

	signage and reallocating lanes on the A453 southbound to allow more traffic to travel to the airport. Road markings will be changed to allow two lanes from the A453 northbound to the M1 northbound. v. SHi asked that the authorities and NH review the details and advise BWB of any comments. JB said that issues have been identified with the diverges that can be discussed in further detail.	**All**
5	**Planning data assumptions** a. PW said that there were a few planning data assumptions that needed bottoming out before the wider strategic modelling can be commenced. b. AA confirmed that she is in the process of getting the data from LCityC planning colleagues and will aim to have this by the end of the month. c. JM said that Richard Groves of SDDC (Senior Planer) has responded with information on housing data. AECOM needs to review the data and ensure it is captured. d. PW said that NCityC information has been received and shared. e. PW said that DCityC information is being provided by Duncan Irons of Systra on DCityC's behalf, which BWB will share on receipt. f. PB said that if Duncan is providing inputs from the EMG model, then there are only two forecast years and so phasing may need to be considered as part of the PRTM modelling.	**AA** **AECOM** **BWB** **AECOM**
6	**Stage 1 modelling outputs** a. JM provided an update and AECOM are happy with the models and are focusing on the 2022/23/24, 2028/38 without development scenarios. AECOM will aim to share the information next week. b. PW asked that once information is ready if it could be sent over even if it is drip fed to allow BWB to make a start with things. c. GN asked for timescales in receiving PRTM outputs for each scenario and the forecasting report to plan resourcing.	**AECOM** **JM/PW**
7	**Sustainable transport strategy** a. SM said that before Christmas ITP issued a response to comments document, which was sent to LCountyC, LCityC and NH comments. ITP has since received comments from NCountyC. ITP will therefore update the document to include an initial response to NCountyC comments before updating the STS and FTP. b. SM asked if there would be any further comments from other	**FA**

	organisations? FA said that she has reviewed ITP initial response and is largely happy but may have some further questions that will be shared. c. SM asked whether comments are expected from DCityC and DCountyC. PW confirmed that these authorities are happy to remain on the periphery. d. AW confirmed that there are no further comments from LCountyC.	
8	**Vision and validate/mezzanine related matters** a. PW responded to comments from CT on the data that fed into the vision and validate assessment. The latest email issued on 6th January 2025 includes more detail on the traffic forecasts for various scenarios. The latest email focuses on the 2022 survey data and the B8 element of the proposals. The headline summary is that the client would like flexibility for a further 100,000sqm of B8 mezzanine floorspace. The worst-case impact on traffic is it could generate a further 220 trips (worst-case evening peak) based on currently agreed trip rates, but by attributing the additional mezzanine floorspace to the EMG1 surveyed trip rates or applying a reduction in trip rates to the mezzanine floorspace, then the overall traffic forecasts would fall well within what we are currently modelling and allow Segro to go as far as building out 592,000sqm of B8 floorspace at EMG2 in total. b. PW referred to the Northampton Gateway scheme where an agreement was made to deduct 50% of the trip rates to mezzanines. The Amazon at Bardon application agreed for a 75% reduction to light vehicle trips to the mezzanine floorspace. c. GN asked if BWB could confirm the exact quantum of development and land use being applied for through the DCO (a subsequent email was sent on 9th January 2025.	**BWB**
9	**Covid sensitivity testing** a. MC summarised the current position with the Covid sensitivity assessment. An email was sent on 10 December 2024 with initial data analysis of 2019 vs 2023 flows from six different counter locations. This showed that traffic has reduced overall. b. A response was received from GN confirming the data is acceptable but for the details to be submitted formally within a Technical Note. c. BWB has subsequently issued a Technical Note on 3rd January 2025 and will await any comments/agreements from the TWG.	**All**
10	**VISSIM base model** a. VD confirmed that the base model is close to being updated but suggested that a meeting with Lee Templeman (LT) of Jacobs would be useful to talk through the changes before following up with the model.	**GN**

	GN said that he would liaise with LT and confirm availability.	
11	**Construction traffic** a. MC said that as part of the Stage 1 modelling we've agreed to carry out an assessment of construction traffic. BWB has looked at construction traffic numbers broken down by different construction components and vehicle types. A spreadsheet has been populated setting out the calculations which BWB will share setting out the peak hour construction traffic forecasts. Our initial assessment shows that peak hour movements are likely to be low and so consideration is needed as to how this is tested and whether it is modelled in PRTM or manually assessed on top of 2028/38 without development flows, if indeed that is even required.	**BWB**
12	**Programme** a. PW said that we are currently a month behind the current programme because of current delays in reaching agreement on certain items and in receiving outputs on certain elements but BWB will keep people updated on progress as we move forward.	
13	**AOB** a. HH said that normally it is recommended that an LMVR is agreed prior to modeling being undertaken but suggested whether PRTM 2023 is ran at risk before validation is signed off to help move things forward and noting that LCountyC NDI has confirmed the model validates well. PW thanked HH and said this can be considered with the wider project team.	**BWB/Segro**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 13 FEBRUARY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN), Fiona Ahmed (FA), Jeremy Bloom (JB) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC), Simon Hilditch (SHi) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT), Steve Freek (SF) & Kate Stephen (KS) – National Highways (NH)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Ian Rigby (IR) – Segro

MINUTES:

Agenda item		Action
1	**Review of January's meeting minutes** a. PW shared January's meeting minutes on screen and summarised the following actions, the majority of which are included in the agenda for this meeting: i. Discussions have continued with HH regarding the December 2024 meeting minutes. ii. KS is being copied into emails in CT's absence and PW asked whether this is the correct approach. JB confirmed that KS has asked JB to take a lead on behalf of NH for the meantime but to be kept copied into correspondence. iii. JB still needs to chase the abnormal loads and drainage teams, the latter has been quite difficult getting information from. iv. HH said that consultation boards have not been shared. SHa said they are available on the consultation website. SHi shared a link in the Teams chat. https://www.segro.com/countries-repository/united-kingdom/segro-logistics-park-east-midlands-gateway-2/downloads v. BWB shared the presentation providing information on the consultation. vi. SHi confirmed the highway drawings are submitted with the consultation but there will be more detail to follow for NH in particular. vii. Further discussions have been held with regard to the availability of the PRTM 2023 model and associated timescales.	**JB**

	viii. SHi confirmed the Hyam's Lane emergency access is indicated on the highway plans submitted with the consultation. ix. SHi is preparing details to discuss any departures with regard to the M1J24 free flow link. This is likely to be sent in the next couple of weeks. x. Planning data assumptions have been dealt with which AECOM need to review. xi. Stage 1 modelling outputs have been received from AECOM. xii. Further information has been shared on the vision and validate assessment and correspondence has been held with FA and GN recently. xiii. The Covid sensitivity test note has been issued and agreement has been received from GN on behalf of NH. xiv. The VISSIM base model has been discussed with NH, and LCC has issued comments for BWB to review and update. xv. Construction traffic numbers have been provided and BWB are reviewing comments from FA before re-issuing. b. PW asked if anyone has any further comments on the minutes. No further comments hence they are agreed.	**AECOM**
2	**December 2024 meeting minutes** a. PW referred to comments received from HH on the minutes and confirmed that these have been accepted/included in the latest version (rev 4) alongside some commentary. b. HH confirmed these are now agreed. BWB to upload to SharePoint.	**BWB**
3	**Sustainable Transport Strategy and Framework Travel Plan** a. SM referred to comments received from NCountyC and NH. These have been collated and submitted to SharePoint. SM asked if everyone could review the latest document and confirm all ok (FA has since confirmed on 14/02/25 the documents are agreed from a NH perspective). b. SM said that NH has asked to be a voting member of the Sustainable Working Group, which Segro has approved. c. SM confirmed that the mode share targets exclude the Covid-19 years and are based on the EMG targets and other data that has been gathered. d. SM said that the latest documents address more specific comments raised by NCountyC regarding funding. Funding is being ringfenced and allocated flexibly so that once the site is built funding will be used towards improvements that will generate the most benefits, driven by the data. e. TBe said that public transport functions at NCountyC, NCityC, DCountyC and DCityC will be transitioning to EMCCA from 1st April 2025 for a 6-month period. It is likely that the representative on the TWG will be someone transferred from one of the counties. The public transport	**LCountyC, NCountyC**

	strategy is being combined across the four authorities. f. TBe also asked whether connectivity between EMG2 and the western side of Nottingham (Bulwell) and Erewash has been considered. Alex Perry has been working on a bus strategy and so EMCCA would be interested to see if there are any deficiencies in the network particularly form the locations above. g. SM said that consideration has been given to introducing EMCCA to the Sustainable Working Group. In terms of services to Bulwell and Erewash, SM is the Sustainable Working Group Co-ordinator and is happy to speak to anyone who has suggestions for improvements and better linkages to certain areas. However, routes to Erewash and Bulwell are not currently being considered but can be in the future if there is evidence to show this would be of benefit. h. DS asked if invites have been sent to the Public Transport Officer at NCountyC. SM said that the documents have not been sent directly but Steve Hale has provided comments. TBo confirmed he sent information to Robin Dance, so he will download the latest documents and share these with colleagues. i. FA questioned why the comments tracker still includes old comments and not the latest ones. SM confirmed that all comments are shown in the document with the latest comments included at the bottom to show the journey that has been taken to address comments from the TWG. j. SM confirmed that both the STS and FTP have been updated and are on the SharePoint if anyone would like to review the final versions.	**TBo** **LCountyC/ NCountyC**
4	**Statutory Consultation** a. PW confirmed the consultation is now live and provided a general update from the event at Diseworth Village Hall on 10/02/25. The event was attended by over 200 people and in general there were some useful comments and discussions held. Key points include: i. Conflicting thoughts on capacity improvements on the A453 from Diseworth. Concerns raised about exiting safely onto the A453, however there are issues with increasing capacity and encouraging traffic through the village, which is not wanted. ii. There were mixed views as to whether traffic calming should or should not be introduced in Diseworth. iii. Concerns about traffic being able to exit onto the A453 during times when Download Festival is taking place. iv. Residents at Kegworth are concerned with not having a direct access to M1J24 with the wider mitigation scheme in place. SHi said that whilst this is acknowledged, this is not part of the EMG2 mitigation scheme and is therefore a wider issue that can nonetheless be considered at the appropriate time. b. PW said the next event is being held on 25/02/25 at the Hilton Hotel and	

	the TWG are welcome to attend and meet the Client team. c. TBe has attended meetings recently regarding the Freeport and other aspects of M1J24 and others at the local authority were expecting to receive information upfront on the Transport Assessment. Not receiving information has put him in a difficult position. d. HH referred to his comments in previous meetings asking for public consultation materials up front but this was not received ahead of the Diseworth event earlier in the week. e. JB said that NH response will be guarded as the details are not available at this stage to confirm whether the mitigation strategy is suitable. Submitting the DCO without having all the modelling and mitigation agreed is a risk for Segro. f. TBo said NCountyC is in a similar position and any formal response will be limited until the full details have been received. g. PW appreciated the above thoughts but said that the benefit of having these meetings is that we can continue to discuss the details in the round ahead of the DCO submission. h. SHa questioned what the 'difficult position' is that the authorities feel they are in. i. GN said from a technical perspective, NH will respond to what is in front of them, hence the response will be that mitigation to address the impacts is ongoing. It is unusual to have mitigation identified before impacts on the network are established but NH are looking forward to receiving the technical evidence. j. JB said he is not in a difficult position but would prefer to be in a different position and NH response may put Segro in more of a difficult position as NH cannot confirm whether the mitigation is adequate or not. k. HH said the issue is about not knowing whether the mitigation is adequate but in addition, LCountyC is in a position where they are consulting on the scheme but there are questions over mitigation and land uses. Work is still to be done to finalise the details so we cannot confirm that the mitigation is adequate. l. TBe agreed with the above comments from HH and JB. m. SHi questioned HH comments on land uses. HH said that a document has been received on mezzanine assessment and vision and validate that seeks a different quantum of development. The consultation is for 430,000sqm but there are separate discussions about this increasing to 530,000sqm. n. SHi said that if the scheme increases to 530,000sqm then it will be based on an agreement with the TWG for a reduced trip rate to be applied to	

	the mezzanine floorspace, hence it won't have any impact on traffic generation and the current modeling work. o. HH said that in his view an increase of 25% to the floorspace is a significant change for the purposes of the consultation and DCO. p. SHi said that legal advice has been received and that this should be acceptable; the increase is an internal floorspace change. If conversations in the future allow a reduced trip rate to be applied to the mezzanine floorspace then traffic will remain unchanged and from an Environmental Assessment perspective there would be no changes i.e. 100% of 100,000sqm is the same at 50% of 200,000sqm. q. HH questioned how an increase in 100,000sqm of floorspace would not affect the Environmental Assessment. SHi said it would only affect the Parameters Plan, the buildings would remain the same but they may have multiple floors within them.	
5	**Proforma v14 modelling work** a. PW confirmed outputs have been received from AECOM and BWB have been reviewing the data to check we're happy with it. b. JM shared a presentation of the modelling outputs and gave an overview of the results. i. Access strategy is from the A453 via a new fourth arm from the Hunter Road roundabout, based on BWB's drawing. ii. Trip generation values align with the proforma for lights and HGVs. iii. HGVs are all routing along the SRN and taking account of existing weight restrictions. iv. Light vehicle distribution is a lot more varied across the network with traffic routing down Grimes Gate to reach the A42. Some traffic is travelling through Castle Donington and the Kegworth bypass. Overall, the distribution looks sensible. v. The flow difference plots show a decrease on Beverley Road in the AM Peak (East Midlands Airport) with large increases on the A453 towards Finger Farm and the M1 northbound and southbound. vi. The AoI is based on an increase of 30 pcus and a +/-5% in traffic and includes the M1 up to J25 and the A42 at J14; overall it is largely similar to before. vii. In terms of delay change, there is re-distribution occurring at M1J25 around Bostocks Lane because it is a sensitive location. viii. The VoC plots show ratios for both without development (left half of circle) and with development (right half of circle) reflective of the worst-case node/turn. The site access is showing stress in the AM peak hour under with development scenario. There are not too many changes to the V/C plots as a result of development and there are a lot of existing capacity issues. There is generally less capacity issues in the PM peak hour. ix. Overall, AECOM view is that the results are logical and sensible.	

	c. SHi asked for AECOMs view on the sensitivities at Bostocks Lane and M1J25 and how that is impacting traffic. d. JM said that the junction is at capacity during the 'without development' scenario, so any small increase in traffic from the development increases delay and V/C. This affects the routing of traffic around the junction more notably in the AM peak. e. SHi asked if the issues are having knock on effects at other junctions further south on the M1. JM said that the impacts are localised and not a strategic problem. f. AA noticed that Leicester is outside the AoI but asked if a plot can be provided that shows Leicester in context of the AoI to see how far removed it is? g. JM said that whilst PRTM includes all of Leicestershire and Leicester, the EMFM model has been cordoned and includes a smaller area that excludes Leicester. h. HH asked if PRTM 2023 covers Leicester City, JM said it does. i. PW thanked JM for the presentation and confirmed that BWB will be sharing further information setting out thoughts and how it influences the work being undertaken on the Transport Assessment. j. HH picked up on access arrangement and potential need to dual the A453. Given there is congestion around the access how is the intention to generate the traffic flow matrices under congested scenarios as there is a risk that the VIISSIM work will not fully identify the growth from the development? k. VD said that the V/C is within capacity during the without development scenario and only exceeds when the development is included. BWB will assign the development traffic on top of without development scenario to avoid the impacts of re-routing and test this in VISSIM as a worst-case assessment. l. HH agreed that makes sense but if the access strategy shows issues, then is a question over the access arrangement, which needs further consideration. m. VD confirmed that BWB will be running the traffic through VISSIM which includes the site access to understand whether any changes are needed. n. PW said that we are yet to consider mitigation in PRTM which is the next stage. We are aware of the site access and agree this needs to work within capacity. We are intrigued about the mitigation and the benefits this should have in taking traffic off the A453. We need EMG2 to mitigate its own impacts, however we will be receiving outputs from proforma	**BWB**

	v14a which excludes the Local Plan sites, so that may help tell a story as to the infrastructure needed to support EMG2 and then what is required over and above that to accommodate the wider planned growth. o. HH said that the capacity issues at the site access arise with the development from the outputs using proforma v14 hence it is an issue that this site needs to consider. LCountyC will be interested given it is part of the local road network. PW and SHi agreed it will be considered and that Segro will want to know that the site access works within capacity. p. PW summarised to say that BWB will be reviewing the data and considering the impacts further so will share further thoughts in due course. q. MC shared a presentation recapping on the previous approach undertaken to determine the original study area and highlighting changes from the latest PRTM outputs: i. So far BWB has been reviewing the data and is largely comfortable with it. ii. In terms of identifying a study area, BWB originally considered junctions in the AoI that were expected to exceed capacity or experience a significant change in traffic flows as a result of the development. iii. This resulted in a need to look at 17 junctions, which were located across the network within NH, LCountyC and NCountyC jurisdictions. iv. This information was tabulated and shared with the TWG, setting out reasons why certain junctions were disregarded from the study area, for example, where junctions were expected to remain within capacity, or the change in traffic from the development is expected to be minimal. v. BWB has re-visited the same process and extended the assessment to include junctions within Borrowash and Long Eaton to reflect the revised AoI and the data shows that the previous 17 junctions should remain in the study area (albeit the A453 junctions in NCountyC jurisdiction are now outside the AoI) but there is unlikely to be a need to extend the study area further. r. GN asked that the previously agreed furnessing methodology will be adopted using the latest outputs from PRTM. VD confirmed this will be the same process. s. HH asked whether the plan is to undertake an iterative process whereby the mitigation is tested in PRTM to understand the benefits of the green package in the strategic modelling. t. PW said that in terms of study area, BWB will need to test the mitigation in PRTM to understand how this changes the balance and routing of traffic. The outputs from this scenario can be used to inform the final study area,	**BWB** **BWB** **BWB**

	but the hope is that the mitigation draws traffic back to the SRN and therefore reduces impacts further afield on the local road network. However, BWB are committed to testing the mitigation in PRTM but beforehand need to test the flows through VISSIM to check that the green package of mitigation still works. u. HH asked how far away the PRTM exercise is for the mitigation scenario. PW said that BWB will be focusing on checking mitigation in VISSIM before then testing it in PRTM as part of the Stage 2 modelling package. The programme shows that PRTM modelling is due to be undertaken in mid-March. v. HH understood this and confirmed that a scenario that includes the proposed mitigation is required in PRTM for LCountyC to agree the AoI but appreciates there is work being undertaken beforehand to check the mitigation. w. HH said that whilst PRTM may identify other locations where impacts are identified, there may be discussions between the TWG agreeing that the focus needs to be on the SRN and a pragmatic discussion can be held then about the study area/mitigation requirements. x. HH asked whether the 'with mitigation' scenario can be run in PRTM 2023 given the mid-March timescales. y. PW confirmed that BWB are committed to running the 'with mitigation' scenario in PRTM 2023 when the model is ready, however it may well be tested in PRTM 2019 to start with if timescales dictate this.	
6	**Wider Strategic Modelling** <u>2023 PRTM model availability</u> a. PW said that discussions were held at the February modelling meeting and that JM confirmed the LMVR for the 2023 model will be available for the end of last week. After this, LCC NDI need to review it before a copy is sent to LCC HDM and NH for approval. Following that the Base Year Model Review specific to EMG2 can be commissioned. b. PW asked whether the PRTM 2023 LMVR is therefore now ready? PB confirmed it is complete and LCC NDI are one day from finishing reviewing it. c. PW therefore asked if the LMVR has been circulated to LCC HDM. PB said it is yet to be circulated but will be sent once LCC NDI have finished their review. d. PW suggested that NH will need to see and sign off the LMVR before BWB can use 2023 PRTM. PB said that there is only a requirement for the site specific Base Year Model Review to be signed off before consultants can use the model.	

	e. MC suggested that this would incur a risk as should NH pick up issues with the 2023 PRTM LMVR then work undertaken by BWB would be abortive. f. VD suggested the LMVR would need signing off by LCC HDM and NH before it can be used. PB said that approval of the base model from LCC HDM, NH and DfT is a formality and not a pre-requisite to modelling being undertaken. VD said that if changes are picked up as part of the review then this would impact any work BWB commission. g. PB said LCC NDI is stringent with the sign off process of new models and therefore doubt that NH will pick up any problems. PW said that BWB would want comfort on that before significant costs are incurred. h. HH said that timescales for running the with mitigation scenario are mid-March so by then the PRTM 2023 model could be signed off. i. PW asked for GN views. GN said that the LCountyC will consult NH with the requisite information for the 2023 PRTM. Front and centre of that will be the LMVR. The key thing NH will review is simulation on the SRN. Jacobs are pre-empting the resource needed to undertake the review but once it lands it will be reviewed, but in simple terms yes NH need to review and agree to the model before they can review and formally comment on any outputs/work carried out by consultants. j. PW said that whilst the 2023 model, in LCountyC's opinion, may not technically need to be signed off by NH for it to be used, NH will be reviewing any outputs from the modelling undertaken by BWB and so the base model should be signed off beforehand else there are risks with the work being abortive. k. HH said that the risks of using PRTM 2023 prior to sign off from NH should be weighed against using an older version of the model. l. PW summarised to say that there have been mixed messages about when the PRTM 2023 model will be available, which began in December 2024, but it appears the LMVR is still yet to be finished and circulated. Whilst BWB appreciate there is a bigger picture, we have previous meeting minutes setting out the strategy for the overall modelling process. BWB are committed to running PRTM 2023 to test the mitigation scenario but it comes down to timing and when the model will be available. m. JM said that the Base Year Model Review could be undertaken in parallel with the 2019 PRTM work, which would take 1-2 weeks to complete. n. PW thanked JM and said that BWB will talk to Segro to agree the steps for the modelling. o. PB and LG said that a new proforma, and PO, will need to be agreed before any work is undertaken on the Base Year Model Reviews. p. GN asked about timescales for resourcing purposes and whether the	**BWB** **PB**

	2023 PRTM consultation of the LMVR will commence soon. PB said he will need to speak to the project manager. <u>Planning Data Assumptions</u> q. PW suggested that planning data assumptions should now be received. r. JM said that Charnwood has now responded meaning everything has now been received, although the data is in different formats some of which is less easy to pick up but so without going into the detail AECOM should have everything they need. Time will however only be dedicating to unpicking this post receipt of a PO for the 2023 PRTM work. <u>Proforma</u> s. PW shared an email from GN from 31/01/25. BWB will liaise with the client and agree the quantum of development for the DCO but note NH's position. t. PW said that the wider strategic work is being led by Steve Johnstone of Lawrence Walker Ltd and so it is for him to decide who does what in terms of modelling any junctions outside of the VISSIM model, however BWB hold models for the majority of junctions already. u. PW confirmed that discussions have been held with regard to the tram extension and the understanding is this can now be modelled in PRTM, albeit this can be discussed in greater detail at the modelling inception meeting. v. PW concluded that BWB now needs to revise the proforma and circulate a copy to the TWG but asked whether there are any other comments at this stage beyond those received from NH. HH said that LCountyC still need to review it.	**AECOM** **PW/HH**
7	**Programme** a. PW said that a revised programme has been shared with the TWG. It assumes a 'fair wind' with a number of items but sets out the next steps and key tasks that will be undertaken in the short term, focusing on the furnessing and revised modelling to check the current mitigation. The programme allows 15 days for the TWG to review key submissions. b. PW said the wider strategic element at the bottom of the programme is based on wider discussions and timescales for PRTM 2023 being available. c. PW asked that the TWG review the programme and advise of any comments. d. HH asked about timescales for receiving the highway design work and agreeing departures from standard, together with undertaking the RSAs as an example also. There is concern with agreeing these by May 2025. The main risk is that the DCO is submitted in May 2025 and that fixes red lines	**NH, LCountyC, NCountyC**

	and proposals then we are heading into the DCO without agreements. e. PW appreciated the risks and that there is a balance with the Clients timescales. HH acknowledged this but it needs weighing up.	
8	**Construction Traffic** a. MC confirmed BWB has received comments from FA and are awaiting final details from the Client before a revised Technical Note / Explanatory Note are issued. The aim is to send these documents next week.	**MC**
9	**Covid sensitivity testing** a. MC said BWB has received comments from GN confirming this is agreed. BWB are yet to receive comments from LCountyC or NCountyC. b. HH said LCountyC's advice is that this scenario is run in 2023 rather than increasing link flows in PRTM 2019, as it ignores different patterns that have occurred since 2019.	**LCountyC/ NCountyC**
10	**VISSIM base model** a. PW summarised that BWB has received comments from Lee Templeman on behalf of NH and more recently comments from AW on behalf of LCountyC. BWB are working through all comments. b. VD confirmed BWB are considering all comments in one go, before a revised VISSIM base model is sent to NH. VD confirmed that this will be sent next week. c. GN said he would resource this his end.	**VD**
11	**Sign off sheets** a. MC said that a Stage 1B sign off sheet was circulated and includes for the Trip Generation Core Assessment and EMG1 Rail Freight Terminal Notes. Those two documents have been agreed so have been combined into the same sign off sheet. Following that, a further sign-off sheet will be sent covering the next batch of documents.	**BWB**
13	**Next steps** a. PW summarised that BWB are in the those of reviewing latest outputs from PRTM before going onto furnessing and then revisiting the modelling before testing the mitigation in PRTM. Our intentions are to continue in line with the programme to get the Client where they need to be by mid-May. b. PW asked if there was any AOB. No further comments received so PW thanked everyone and ended the meeting.	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 13 MARCH 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Laura Good (LG) – LCountyC Network Data Intelligence
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC), Simon Hilditch (SHi) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

APOLOGIES/ALSO ISSUED TO:
Fiona Ahmed (FA) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Catherine Townend (CT), Steve Freek (SF) & Kate Stephen (KS) – National Highways (NH)
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of February's meeting minutes** a. PW shared February's meeting minutes on screen and summarised the following actions: i. JB confirmed the drainage and abnormal loads teams are considering their elements as part of reviewing the drawings SHi recently sent across. ii. All previously agreed meeting minutes have been uploaded to SharePoint. iii. Revised STS and FTP documents have been issued and conversations have continued to finalise those. iv. IR will be giving an update on the wider strategic modelling work and how this will be dealt with moving forward. v. Highway design work is continuing and drawings have been shared, as JM referred to. vi. Revised VISSIM base model has been shared. vii. Construction traffic calculations have been discussed and covered in the meeting. viii. Covid sensitivity has been discussed and updates received from NCountyC. b. PW asked if anyone has any further comments on the minutes. AW confirmed he had only read half the minutes and whilst there are no issues so far will confirm in writing. No comments received from NH or NCountyC.	**AW**

2	**Client update** a. IR provided an update on the statutory consultation which is finishing on the 17/03/25. Public events were held at Diseworth Village Hall and Hilton Hotel with approximately 280 attendees across the two events. The highway mitigation was discussed in detail and whilst it was difficult to explain why the strategy does not require any improvements to Finger Farm, details on the free flow link at M1J24 were well received. b. SHa also confirmed that an online webinar was held on 04/03/25, although only attended by one person. c. SHa said that responses/questionnaires are now being received in different forms; emails, letters, website etc. d. IR said that there will be changes to how we're dealing with the wider strategic work moving forward because there appears to have been some confusion between that work and EMG2. The plan is to set up a different TWG meeting to separate the two projects, with the strategic work being led by Steve Johnstone but with BWB attending. Initial suggestion is to hold monthly meetings starting on Tuesday 25th March in the afternoon. e. AW said that LCountyC have a placeholder in but either him or HH should be able to attend. PW said that others at LCountyC may also want to attend. IR said he will email LCountyC separately to ensure that everyone is included on the attendee list. f. TBe said that there are lots of meetings taking place which is confusing, including meetings held on the WISSER project. IR confirmed WISSER is separate and that from a Segro perspective there will be two meetings, one for EMG2 and another for the wider strategic work. g. HH asked whether the wider strategic TWG will include the others from the consortium. IR said that a decision will be made within the consortium as to who will attend, it doesn't require everyone, but a representative will join who can then refer back with updates. h. HH said that a mechanism will be needed to tie the works to each of the individual projects. IR agreed and said that the representative(s) from the consortium will cover all projects.	**IR**
3	**Statutory consultation** a. PW said that details on the consultation were covered above and that we will await any responses from statutory consultees.	
4	**Proforma v14 modelling work** <u>Comments from LCountyC and NCountyC</u> a. MC recapped on the proforma v14 modelling work which includes all	

	draft Local Plan sites as originally requested by the authorities from a DCO compliance perspective. BWB have been reviewing the outputs from AECOM and the Forecasting Report was shared with the TWG. Comments have been received from GN which will be taken on board in the TA, particularly those flagged in red as 'critical items' mainly relating to capacity issues on the SRN.	
	b. MC asked if there are any updates from LCountyC/NCountyC? HH asked how the manual overlay of development traffic feeds into the Stage 2 modelling work in PRTM and whether the manual distribution looks to load traffic onto the existing road network.	
	c. MC confirmed that BWB will manually assign development traffic on top of the PRTM without development flows to test the impacts of the development in VISSIM and validate the green package of mitigation.	
	d. VD expanded to say that PRTM allows traffic to re-route and because the network in the local area is congested, BWB plan to test development traffic manually in VISSIM to understand the mitigation proposals and validate the green package.	
	e. HH asked if this manual assessment should include the sites within the wider consortium as the mitigation package feeds into a larger scheme.	
	f. PW said that the PRTM modelling considers all sites including those in the draft Local Plan, as requested. The purpose of the initial VISSIM modelling is to give BWB comfort that the green package of mitigation is suitable ahead of testing this in PRTM as part of the Stage 2 modelling work. It is therefore an interim piece of work to give BWB security ahead of AECOM carrying out their work in PRTM.	
	g. HH understood and clarified that the VISSIM work is an internal task for BWB to test the mitigation initially prior to Stage 2 PRTM and agreed this is sensible.	
	h. AA said she still needs to review the Forecasting Report and will respond next week.	**AA**
	i. AW said he has comments on the scope of junctions being considered but would like to review the background spreadsheets first.	**AW**
	j. PW thanked AW and appreciated LCountyC's position is that the study area can only be confirmed following Stage 2 modelling being carried out in PRTM.	
	k. GN confirmed NH has reviewed the Forecasting Report and provided comments and asked whether the local highway authority's will be providing comments. MC's understanding is that comments from the local highway authority are forthcoming. GN confirmed that BWB can share NH's email and comments on the Forecasting Report.	**MC**

	Traffic Flow Furnessing	
	l. VD thanked JM for sending the additional 2022 information and confirmed that BWB will review and continue to furness the traffic flows.	
	m. JM said that he would be happy to have a meeting to discuss any of the outputs if this would help BWB derive the future forecast flows.	
	n. PW asked when AECOM will be ready to discuss the 2022 as this is critical for BWB to carry out the next stages of work.	
	o. JM confirmed AECOM are working through the comments but suggested Friday afternoon. JM said he would respond via email first and then follow up with a phone call.	**JM**
	p. GN asked about timescales for the traffic flow furnessing and forecast flow spreadsheets. PW confirmed BWB are a couple of weeks behind programme but this information should hopefully be ready to send early next week.	**BWB**
	Traffic Distribution	
	q. MC said that development distribution percentages have been taken from PRTM and one thing BWB picked up on is that 7% of traffic is originating/travelling to EMA, so this has been manually adjusted and added onto the seven highest routes.	
	r. HH asked for clarification on this matter from AECOM. JM said that PRTM is a gravity model and traffic is distributed to different attractions based on their size and distance from a site. EMA is an attraction in PRTM that is close to the site hence why traffic is shown travelling to/from it. JM confirmed he would write back to the TWG to set this out further.	
	s. PW asked whether this can be manipulated in the Stage 2 modelling work so that development traffic is not routing to/from EMA. JM confirmed the EMA zone can be manually removed.	
	t. HH asked about traffic flows to EMG1 and whether this has any influence on the modelling results. PW confirmed that BWB have made a note to consider HGV movements between EMG2 and EMG1, which will be undertaken manually in VISSIM as set out in the Rail Freight Terminal note.	
	u. GN suggested that 7% of travelling to/from EMA is high and agreed that manipulation is required but asked for clarification from AECOM in writing setting out their position and for BWB to share this with the TWG. MC confirmed that ACH has an action from the modelling meeting to review this too.	**ACH**
	v. PW asked if JM can confirm AECOMs position for completeness.	**JM**

	Next steps w. PW summarised next steps: i. Furnessing and traffic flow calculations to be produced by BWB. ii. VISSIM modelling to be updated with the new flows to test the green package of mitigation and check the capacity of Finger Farm and the site access. iii. AECOM to then undertake the Stage 2 modelling work and test the green package of mitigation in PRTM. x. GN asked if BWB is fixed on the current green package and whether further thought has been given to Finger Farm and the site access on the back of the Forecasting Report findings. y. PW confirmed BWB are working through the modelling but will be considering capacity at those two locations. The hope is that the green package remains suitable and addresses issues at Finger Farm and the site access.	**BWB** **BWB** **AECOM**
5	**VISSIM base model** a. VD confirmed that the revised VISSIM model was issued on 03/03/25, which addresses NH and LCountyC's comments and asked whether there are any further comments. b. AW said the information has been sent to colleagues at LCountyC, who will refer back. c. PW thanked AW but said that the latest VISSIM model is what BWB are using to test and confirm the green package of mitigation internally but there is time to pick up and further comments if there are any. d. GN confirmed that NH will respond to the latest submission next week.	 **LCountyC** **GN**
6	**Vision & Validate / Mezzanines** a. PW referred to an email sent to FA on 05/03/25 and shared a copy on screen. In summary: i. Segro are considering an additional 100,000sqm of B8 mezzanine, taking the total to 200,000sqm overall. ii. The trip rates received from EMG1 in 2024 continue to show that recorded rates are much lower than what BWB are adopting for EMG2 and include for mezzanines at EMG1. EMG1 is now fully built out. iii. If BWB adopt the surveyed trip rates from EMG1, then in theory 650,000sqm GFA of B8 development could be built out at EMG2 without compromising the agreed traffic generation. iv. Information has been provided explaining how mezzanines operate. Traffic volumes at B8 units are driven by loading doors and not mezzanine floorspace.	

	v. Plans were shared showing how racking systems are stacked in a traditional B8 unit compared to a unit with mezzanines floors. The difference is that traditional racking systems are stacked vertically and with mezzanines they are stacked horizontally. b. IR said that storage of goods is very similar in both units. It is simply the orientation goods are stored and horizontal racking arrangements with mezzanines allows for the more efficient movement of goods. c. PW said that BWB will await comments from the TWG but suggested that mezzanines should not be feared from a traffic generation perspective. GN confirmed he will respond but asked whether the local highway authorities will also review. d. HH said LCountyC will review the information but raised concern that the approach being suggested is not the traditional way of assessing schemes. LCountyC has not yet received a convincing reason as to why we are not adopting a floorspace and an agreed trip rate and testing things the usual way but will continue to review things. e. GN agreed with HH saying he has concerns with the approach being undertaken but will review and respond. f. PW said that the trip rates adopted are significantly robust which hopefully provides the authorities with comfort that we are testing a highly robust position that is unlikely to play out in reality. It was difficult for BWB at the time to reach an agreement on trip rates for mezzanines hence why we agreed to adopt them at 100%, but further evidence is now becoming available. g. HH asked if BWB has concerns with the trip rates and if so that we can re-consider those. PW reiterated that the trip rates currently being assessed in effect provide a 'worst, worst-case' in the Client teams opinion but we had to bow to the TWG's wishes because timescales dictated that we simply had to get on with the modelling work. GN appreciated PW's right to reply. h. IR said that it is difficult to work out the impact of mezzanines because surveys are never undertaken before and after mezzanines are installed.	**NH/ LCountyC/ NCountyC**
7	**Proforma v14a modelling** a. MC said that proforma v14a excludes the draft Local Plan sites and is a required scenario for noise and air quality. BWB has now received outputs and are reviewing the information before sending it to the other consultants. MC asked AECOM about timescales for receiving the Forecasting Report. b. JM confirmed that it is with colleagues for approval and so should be sent before the end of the week. *AECOM has since issued the report on 13/03/25*	

	c. MC thanked JM and said that BWB would like to review the report before information is shared with other consultants for completeness. d. HH asked why the noise and air quality assessments are using different traffic flow scenarios. PW said they are also testing the proforma v14 scenarios, however the consultants (Vanguardia) have asked for alternative scenarios too. e. MC said that the alternative scenarios align with the requirements of their assessment criteria which requires draft allocations to be excluded and only inclusion of committed developments. f. GN asked for clarification that the Transport Assessment work will focus on the proforma v14 outputs and that v14a is for noise and air quality purposes. g. PW confirmed this is the case and said that BWB's assessment will be using the v14 outputs but that consideration may be given to the v14a details from an ancillary information perspective to inform the wider picture, for example.	
8	**Construction Traffic** a. MC said that BWB issued an email to FA with further clarification on the assumptions made regarding construction traffic numbers. This will hopefully now resolve any final queries. b. JB confirmed he discussed the original comments with FA and asked whether he has been copied into MC's email. NH are in conversation about this and will refer back. c. PW asked for the correspondence between BWB and NH to be circulated to the TWG so that any final comments can be picked up ahead of this scenario being tested in PRTM.	**NH** **MC**
9	**HGV route plan** a. MC said that a report was issued in mid-February covering: i. Existing highway conditions and weight restrictions. ii. HGV distribution using the PRTM outputs. iii. Diversion routes should parts of the SRN are closed. b. MC said that BWB has received comments from NH and will await comments from LCountyC and NCountyC. c. HH asked if details of the HGV route management strategy have been covered in the public consultation? d. PW said that there are no changes proposed as a result of HGV routing and measures are already in place to control HGV movements.	**LCountyC/ NCountyC**

	e. MC said that comments were raised at the virtual consultation about HGV movements and routes, which BWB responded to. However, in terms of management measures we shouldn't need any because of the existing weight restrictions already in place. f. PW said that no comments were raised at the in-person consultation events from a HGV routing perspective. g. SHi clarified that measures were put in place at EMG1 to amend weight restrictions through Kegworth following opening of the bypass. h. HH asked if a monitoring strategy was included at EMG1? SHi said there was not a requirement as part of the DCO to formally monitor HGVs. i. SHi said that the management team could be made aware when HGVs are picked up through villages. j. IR said there is a community liaison group for EMG1 which will continue for EMG2 and allows people to provide feedback if there are any concerns. k. HH asked for evidence explaining why there is no requirement for any formal monitoring as part of the DCO to help address this item. l. TBo said that there is a weight restriction through Ratcliffe on Soar that is excluded on the plan for completeness but will respond via email on this.	**TBo**
10	**Sign off sheets** a. MC summarised the current position with sign off sheets. i. Stage 1A, 1B and 1C Modelling sheets have been issued to date covering nine documents. ii. NH has approved all nine documents. iii. NCountyC returned sign off sheets covering 8 of the 9 documents last week, excluding the PRTM LMVR Addendum simply because a copy could not be found on their system. BWB has since shared this and suspect that this can now be agreed. iv. More recently, sign off sheets for Stage 1D Modelling and Transport Reporting 1 documents have been issued. These cover the base junction model validation report (Linsig and Junctions 10) and the STS and FTP. b. GN confirmed that NH will respond on 1C and 1D so will send this through. c. PW asked if LCountyC are able to sign any of the documents? HH said that LCountyC need to take a view as the purpose of to sign off sheets was to agree the details within certain documents. However, there are questions and uncertainties over certain elements of the project which make this difficult for them to do. Whilst other authorities are signing documents and	**GN**

	adding comments to the sign off sheets, HH will need to feedback to seniors as to how sign off sheets can be used for this project. d. PW suggested that agreements should be attainable otherwise the other authorities wouldn't have signed things. e. HH said that typically sign off sheets do not include comments box but if that is allowing authorities to sign things with caveats then that is fine. PW said that the comments box was requested by the authorities so does not want this to be used against BWB. f. SHi suggested the sign off sheets should be viewed positively because it provides an understanding of LCountyC's position subject to caveats and comments. A Statement of Common Ground will ultimately be signed at the end of the project but it would be useful to know LCountyC position now and ahead of that time. g. HH acknowledged the SoCG is important and helpful, so if the sign off sheets are used to set a current position then that is fine. h. IR suggested that the sign off sheet process should be useful for both parties. i. HH agreed they are but only when items are finalised but will speak with colleagues and provide LCountyC's position on sign off sheets.	**LCountyC**
11	**Sustainable Transport Strategy** a. SM provided an update on the STS and FTP documents: i. NH raised a minor comment on traffic counts and for detail to be included. ii. TBe also raised a comment about EMCCA's position during the last TWG meeting and so consideration has been given as to how they can sit in the Sustainable Transport Working Group. iii. Comments from AA on flexi tickets have been included and SM asked to be kept updated on this as it progresses further for both EMG1 and EMG2. iv. AW comments on bus stop infrastructure are included, such as raised kerb, timetable cases. v. There were questions raised about making sure the bus interchange and services are available from initial occupation, which have been clarified. Appendix A of the STS also includes details about investment of services. b. SHi asked if the infrastructure requirements raised by AW is provided at EMG1. SM confirmed it is. c. SHi asked if AW has been to EMG1 to review the infrastructure and understand what is being replicated confirming it is available to view on Google Street View.	

	d. AW said that he will pass this on to public transport colleagues.	**AW**
	e. SM asked NCountyC whether the public transport colleges would like to review the updated documents following the last comments received? TBo said the comments have been addressed and that the documents have been forwarded onto other colleagues but no further comments are expected.	
	f. HH asked about capacity of the Trent Barton service around EMG and whether the strategy remains flexible to increase capacity if required, particularly when considering all schemes in the wider consortium. Questions were also asked about the potential tram extension and how this can be considered.	
	g. SM confirmed that Trent Barton has confirmed the airport bus stop is reaching capacity. Segro's position is that they will work with stakeholders to make improvements happen but issues at the airport are within their land ownership. The strategy is not to introduce new services but to divert existing services into EMG2. It would be beneficial to review the wider strategy along with all sites in the consortium and whether new services are required.	
	h. HH asked therefore if the tram extension is also a consortium matter. SM said it is part of the wider consortium plans. IR added that the highway design allows for a tram extension should it be required in the future.	
	i. HH asked if the tram extension work has looked at whether new land is needed. SHi said that it has been looked at in the context of M1 Junction 24 but not further afield.	
	j. HH said that the mechanism for delivering the infrastructure is yet to be determined but if land is required that a DCO could obtain then it may need to be considered now.	
	k. SHi said that it will not be possible for EMG2, as acquiring land through CPO needs to be justified. It can however be included in the DCO for the wider consortium work.	
	l. JM also said that a Funding Statement will be required if we choose to CPO land.	
	m. TBe said with regard to EMCCA they are in discussions about transferring the public transport functions from NCountyC, NCityC, DCountyC and DCityC to EMCCA, so this does not affect Leicestershire. There are plans to see whether further linkages can be made to the Freeport area to allow more people to access jobs.	
	n. SM confirmed that the above comments from TBe will be picked up in a revised STS and FTP.	**SM**

13	**Personal Injury Collision data** a. MC said that BWB have purchased PIC data and are reviewing this to understand whether there are any existing collision clusters that need further consideration. This information will be combined into a report and shared with the TWG at the start of next week. In summary, there are two locations where we have identified potential issues; one along the M1J24 northbound off-slip and a second at the EMG1 access junction between drivers from the A6 and A453 southbound. b. SHi said that those two locations are where BWB have design proposals and can therefore consider highway safety further.	**BWB**
14	**PRTM proforma for wider strategic modelling** a. PW said that the latest proforma v6 that has been issued remains up to date and the latest document, so asked if the authorities can review and respond with comments. b. GN confirmed he will respond on the proforma along with the mezzanine related queries. c. TBo asked if the revised uncertainty log has been issued. PW said that BWB are waiting on a quote from AECOM to carry out this work alongside the base model validation review. However, a lot of work was recently completed to update the planning data assumptions and so does not envisage this to be a long task once commissioned.	**NH/ LCountyC/ NCountyC**
15	**Highway design** a. SHi confirmed that drawings for works on the SRN have been shared focusing on geometrical assessment work for J24, including a bridge options report, lighting strategy and geotechnical certification. Other aspects will follow such as directional signage. b. JM confirmed he has been liaising with SHi and will be reviewing the drawings. c. SHi said that in terms of design work on LCountyC's network, this will be progressed once modelling work of the site access has been completed as this could influence design.	**JM**
16	**Next steps** a. PW summarised the next steps: i. BWB to complete and circulate meeting minutes ii. BWB to furness the traffic flows and sense check the mitigation in VISSIM before details are shared with the TWG. iii. Once content with the internal position reached, BWB to get AECOM to start the Stage 2 modelling work in PRTM to formally test the green package of mitigation and update the TWG	

	accordingly.	
17	**AOB** a. PW asked if there was AOB. No further comments were received.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 10 APRIL 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH)– Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN), Jeremy Bloom (JB) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Laura Good (LG) – LCountyC Network Data Intelligence
Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

APOLOGIES/ALSO ISSUED TO:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Fiona Ahmed (FA) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Catherine Townend (CT), Steve Freek (SF) & Kate Stephen (KS) – National Highways (NH)
Steve Harley (SHa) – Oxalis Planning
Steph Meyers (SM) – ITP
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Paul Wilson (PW) & Simon Hilditch (SHi) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of March's meeting minutes** a. MC shared the actions from March's meeting on screen and summarised the following key items: i. AW to review and advise whether he is happy with the February meeting minutes. ii. Separate meetings for the wider consortium (EM Growth Point) scheme have been arranged by IR. iii. AA unlikely to have any material comments on the Stage 1a Forecasting Report given LCityC's network falls outside the AoI. MC confirmed that BWB have notes of previous comments such as impacts on the Leicester Ring Road. iv. JM provided clarification on the 2022 PRTM flow differences. v. BWB have issued traffic flow furnessing spreadsheets, which are to be discussed in this meeting. vi. AECOM provided clarification on the development distribution query raised by BWB regarding trips to/from EMA. vii. AECOM has been commissioned on the Stage 2 modelling and will be providing an update in the meeting. viii. NH and LCountyC have signed off the VISSIM base model.	**AW** **AA** **NH/**

	ix. BWB waiting on a response from NH, LCountyC and NCountyC regarding the possibility of increasing the internal mezzanine floorspace and associate trip generation.	**LCountyC/ NCountyC**
	x. NH have confirmed the construction traffic calculations subject to a commitment to cap and monitor the flows. HH provided more recent comments which will be discussed in the meeting.	**MC**
	xi. MC to update the HGV Route Plan to show the existing weight restriction through Ratcliffe on Soar.	**GN**
	xii. GN to return completed Stage 1C sign off sheet.	**SM**
	xiii. SM to issue final STS and FTP documents for formal agreement.	
	xiv. BWB has issued the Highway Safety Position Statement and considered the three locations identified to have existing safety issues in more detail.	**JB**
	xv. JB to continue liaising with SHi on the geometric design drawings and WCHAR Assessment	
	b. MC asked if anyone has any further comments on the minutes. GN said he has no comments on the minutes but asked about the Project Teams position on the assessment criteria and whether this is to use information from Proforma v14 (Stage 1a) or v14a (Stage 1b).	
	c. MC said this has been discussed within the team. We appreciate the TWG position that proforma v14 should be used for the Transport Assessment work and highway mitigation. However, we are mindful that the requirements for EIA set out in the IEMA Guidance has different requirements and requests a worst-case assessment. In this case, the outputs from proforma v14a would test a worst-case impact from EMG2 because there is less traffic in the baseline position with the draft Local Plan sites excluded.	
	d. IR suggested whether BWB produces a note setting out the differences between the assessment requirements for Transport Assessments and EIA's. MC agreed to produce this to set out BWB's proposed approach for assessment within these two documents.	**BWB**
	e. HH said that questions were raised following an email from PW. There was an action for BWB to liaise with the planning lawyers to agree the approach to be taken. Therefore, receiving clarification on the approaches will be useful and for this to be agreed with the TWG.	
	f. MC confirmed that BWB has received legal advice. The questions raised by the planning lawyer stem from the TAG M4 guidance and what sites should be excluded from the core scenario. However, the view from the TWG is that the status of the draft Local Plan allocations means they should be included in the core scenario. GN confirmed that the draft allocations should be included in the core scenario but will appreciate receiving a note formally setting this out.	
	g. HH asked about the construction traffic numbers and how these overlap with the HGV Route Plan. Whilst many of the local roads include weight restrictions we need to understand whether this restricts 'access' and if a planning control is required setting out the permitted routes.	

	h. MC said this is something for BWB to discuss with Segro but asked whether there are any controls in place at EMG1. i. IR said there is a management company for EMG1 who are made aware of any issues with HGVs travelling through areas with weight restrictions. Since EMG1 has been operating, Segro are aware of only two complaints, both within Kegworth, one of which was valid and another that wasn't, so there are no major issues at present. j. HH asked if there are any planning controls for EMG1 such as routing plans. IR was not sure what controls are in place but agreed to look into this with BWB to understand what was undertaken for EMG1. HH agreed that it will be worthwhile reminding ourselves of what was done for EMG1 and following this approach. k. MC asked if there are any further comments on the minutes. No further comments received.	**Segro/ BWB**
2	**Client update** a. IR confirmed Segro are still responding to comments from the public consultation. Segro has agreed to meet with the Parish Council's to discuss any concerns, with a number of Parish Council's having some good ideas for the scheme, so overall there has been some good engagement. b. AA said she struggled to submit LCityC's comments, so instead sent an email directly to IR and asked whether this has been received. IR suggested this is re-sent for the avoidance of doubt.	**AA**
3	**Traffic flow furnessing** a. VD confirmed BWB has adopted the previously agreed furnessing methodology to derive forecast year flows but have also looked at an alternative approach where the PRTM link flows were targeted. The only change to the original methodology was that mainline traffic has been excluded to avoid influencing flows at the junctions themselves. A comparison of the datasets has been shared with the TWG. b. GN thanked BWB for turning around the comparison sheets quickly. NH are reviewing the information and will come back with comments next week. c. MC asked for LCountyC's/NCountyC's position and what their plan is with reviewing the information. HH confirmed that the information has been sent to colleagues who will be responding. d. DS said that the study area within NCountyC's network is limited, so if NH and LCountyC are happy with the approach BWB have taken, and this is followed through within the two junctions on Remembrance Way, then NCountyC are unlikely to have any questions. e. MC thanked DS and said that whilst the two junctions on Remembrance Way now fall outside the AoI and are unlikely to experience any major	**NH**

	impacts, BWB are committed to testing them. DS agreed and said that whilst impacts are likely to be small, this still needs evidencing.	
4	**Stage 2 PRTM modelling update** a. JM confirmed AECOM has run Stage 2a (including draft Local Plan allocations) and are now working towards running Stage 2b (excluding draft Local Plan allocations). AECOM will issue initial outputs first before completing the reporting and should be in a position to issue data early next week. b. MC asked if AECOM can provide any indication of how the green package of mitigation is performing in PRTM. c. JM said the new free flow link is attracting a lot of traffic, as expected, but AECOM will share the information shortly. AECOM has included the green times for the A453 Toucan crossing and the speed limit for the new free flow link, using the details supplied by BWB. d. GN asked VD for timescales for BWB to provide the VISSIM model, which requires the logs to be tidied up. VD said that the VISSIM models can be provided next week. GN thanked VD and said that NH will focus on the furnessing spreadsheets before moving onto reviewing the VISSIM model.	**AECOM** **VD**
5	**Sustainable transport strategy** a. In SM absence, MC confirmed that comments from the TWG have now been taken on board and included in revised STS and FTP documents. A log has been created separately explaining how ITP have addressed each of the comments raised. b. MC said that revised STS and FTP documents will be circulated next week with the hope that these can be formally agreed via the Transport Reporting 1 sign off sheet. c. MC asked if there are any further comments at this stage. No comments were received.	**SM**
6	**Highway design** a. In SHi absence, MC provided an update and confirmed that geometric design drawings along with the WCHAR Assessment have been shared and asked whether there are any updates/comments. b. JB said there are various documents and drawings that are being reviewed by specialists. The WCHAR has been reviewed and is with JB. Over the next couple of weeks, NH should be in a position to provide comments on the highway design elements.	**NH**

7	**Construction traffic calculations** a. MC reminded everyone of the work undertaken and that a meeting was held with NH on 28/03/25, which was also attended by Peter Goddard who was involved in producing the spreadsheets. NH has confirmed that subject to there being a cap on the number of movements and a commitment to monitoring those during the construction phase, that the calculations are agreed. b. MC shared an email on screen from HH and summarised the position on LCountyC's first two comments: i. BWB will liaise with Segro about planning controls for where HGVs can route and what was done at EMG1. ii. We appreciate that there is a risk modelling construction traffic ahead of certain aspects of the scheme not being agreed. c. MC said in terms of HH's third comment regarding trigger point, so far the modelling has tested 100% of development from an operational perspective and 100% of the construction traffic calculations. From a construction traffic perspective this should be robust as the calculations assume all components start in Year 1 but in reality there will be enabling works/earthworks prior to any buildings being constructed. We have not yet considered intervening scenarios, where the development is part operational and part under construction but this is something for BWB to think about once the mitigation has been confirmed and finalised. d. IR view is that as the green package is one large scheme, the trigger point testing should aim to demonstrate whether any of the development can be occupied prior to those works being implemented. If it is a case that no development can be occupied and the mitigation is needed beforehand then that should avoid the need to assess any intervening scenarios because construction traffic is presumably less than operational traffic. e. MC said that if Segro are open to delivering mitigation prior to occupation then that would be the case as construction traffic is less than operational traffic. IR said that ideally Segro would like some development to be occupied prior to the mitigation but appreciates that needs to be undertaken and evidenced. f. MC said that BWB can test the operational traffic of certain phases to see whether they can come forward prior to the mitigation. The difficulty may be that because the network is already congested, any modelling will show impacts and displacement of background traffic. It may not be a 'black and white' case of Units X, Y and Z can come forward within the existing capacity of the network before congestion issues are then triggered. There may also be a need for an interim scheme of mitigation to accommodate initial construction traffic impacts. g. VD recommended that trigger point testing is undertaken in VISSIM, as development traffic is being manually added on top of the 'without development' flows to avoid background traffic re-assignment. This can be	**Segro/ BWB**

	undertaken in stages under different phases of development. IR agreed that if an exercise can be undertaken then this should be completed, however Segro's typical approach is to complete off-site works as soon as possible because you never know how quickly demand will come for occupiers of units. h. MC agreed that looking at trigger point testing in VISSIM will work best because of how the development trips are being manual assigned and tested. i. HH said there is likely to be delays in getting road space for delivering the works, so whilst trigger point testing is useful, timescales for booking road space is also critical so may need early thought. IR agreed this is the case from recent experience and is critical for signing deals with occupiers. j. MC summarised to say that BWB will issue a copy of the CTMP with the commitment to a cap on construction vehicle movements and monitoring those during the construction programme, with the aim of getting AECOM up and running with the modelling.	**BWB**
8	**Highway safety position statement** a. MC said that a copy of the Highway Safety Position Statement was issued in mid-March which reviewed the existing PIC records across the network. This identified the following three locations where there are existing safety problems: i. M1 Junction 24 northbound exit slip ii. EMG1 access (conflicts with right turners from A453 SB and A6 movements) iii. A453/The Green junction b. MC said that BWB has carried out a site visit to review these locations further and have the following view on each location: i. The M1 NB issue appears to be due to queueing and rear end shunts. ii. The A453/The Green junction is within a dip in the road but recent improvements to signage appear to have helped slow the rate of collisions down. iii. It was difficult to understand what is causing issues at the EMG1 access as there were no obvious issues with the physical layout of the junction or signal intergreens for example. In reviewing the VISSIM modelling, the issue appears to be a result of queueing on the circulatory into EMG1 and queues not clearing before A6 traffic is released. This should be improved as part of the mitigation scheme, which involves providing two lanes from the A453 SB into EMG1. c. MC said that the current mitigation scheme should therefore help to address safety problems at M1 Junction 24 and EMG1 access. Further assessment is required at the A453/The Green once outputs have been	

	received of the Stage 2 modelling, but it appears the rate of collisions is reducing because of improvements to signage and warnings but if further improvements are required then they will be considered. d. MC asked if anyone had any comments on the Highway Safety Position Statement. No comments were received.	
9	**COBALT Assessment** a. MC said that, building on the review of PIC within the above report, that BWB will also be carrying out a COBALT assessment. This will involve reviewing the change in traffic flows along key links and junctions against the existing safety records to understand the changes and whether there are likely to be any worsening or improvements in the rate and severity of collisions and associated costs implications. b. MC suggested that the COBALT study area will include junctions and links with existing safety problems or those that are expected to experience a significant change in traffic as a result of the proposed mitigation scheme. c. JB said that this is a reasonable approach and that a note in advance setting this out would be useful. MC agreed that a note can be shared setting out this approach.	**BWB**
10	**Next steps** a. MC summarised the next steps. i. BWB will await any comments on the furnessing spreadsheets. ii. VD to tidy up the VISSIM model and log before issuing to the TWG. iii. BWB to await Stage 2 outputs from AECOM and then consider the proposed mitigation scheme further and whether any changes are required. iv. BWB will be starting the ES Chapter work but beforehand will provide a note setting out the assessment criteria and approach for the TA and ES Chapter. v. BWB to commission AECOM on the construction traffic modelling and continue considering highway safety within the proposed mitigation schemes.	
11	**AOB** a. MC confirmed that BWB has written a response to NH's Tech Note on the Stage 1a Forecasting Report, which will be shared next week. GN thanked BWB and asked that we take on board some of the key items such as traffic routing through Castle Donington. b. MC thanked everyone for their time and ended the call.	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 8 MAY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN), Jeremy Bloom (JB) & Fiona Ahmed (FA – joined at 10:30am) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Steph Meyers (SM) – ITP
Paul Wilson (PW), Matt Corner (MC), Vibeeshan Devaharan (VD) & Simon Hilditch (SHi – joined at 10:30am) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

APOLOGIES/ALSO ISSUED TO:
Anthea Anderson (AA) – Leicester City Council (LCityC)
Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Laura Good (LG) – LCountyC Network Data Intelligence
Catherine Townend (CT), Steve Freek (SF) & Kate Stephen (KS) – National Highways (NH)
Steve Harley (SHa) – Oxalis Planning
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning

MINUTES:

Agenda item		Action
1	**Review of April's meeting minutes** a. PW shared April's minutes on-screen and summarised the following key items: i. Agreement to meeting minutes from February 2025 onwards are still required from LCountyC. AW confirmed he would review and respond. ii. Response received from NH on mezzanines and associated trip generation. This links to the sustainable transport strategy which will be discussed in the meeting. GN said that the mezzanines element also links to the planning controls in the DCO that limit usage of the mezzanines to storage purposes. HH said this is sensible advice and would be interested to understand BWB response to this. IR confirmed that Segro are happy with the suggested planning controls because this is the reason additional mezzanines are required. HH said LCountyC would like to see the planning controls part of the DCO Order to support the approach. PW said that a draft DCO will be circulated to the TWG setting out the controls. iii. HGV route plan was updated to show the existing weight restriction through Ratcliffe on Soar. iv. JB said he will continue liaising with SHi on design related matters.	**AW** **BWB/ Segro** **JB**

	v. Revised STS and FTP documents were issued, although these now need revising again to take account of mezzanine related matters.	
	vi. The Technical Note setting out the assessment requirements for the TA and EIA was circulated and forms an agenda item.	
	vii. An email was sent explaining that no planning controls were imposed as part of the EMG1 DCO to restrict HGV routes. This is because of the existing weight restrictions. Hence a similar approach is to be proposed for EMG2. HH said that he would like a routing plan showing the permitted HGV routes which can be secured through the planning control.	**BWB**
	viii. IR confirmed AA had emailed through statutory consultation comments which have been taken on board.	
	ix. A meeting was held with NH on traffic flow furnessing, which forms an agenda item for the meeting. PW confirmed comments are awaited from LCountyC. GN asked if the plan is to wait for LCountyC comments before responding to all. PW suggested this is the most appropriate approach.	**LCountyC/ BWB**
	x. Stage 2a modelling was undertaken with initial outputs received. An update will be provided in this meeting explaining where we are at.	
	xi. The VISSIM model was sent. VD confirmed the base model has been agreed and BWB are awaiting comments on the forecast year assessments. AW confirmed the base model is agreed and that colleagues are currently reviewing the forecast year model so will come back with comments.	**NH/ LCountyC**
	xii. Construction traffic calculations have been confirmed with NH but this forms an agenda item.	
	xiii. A draft CTMP has been issued.	
	xiv. Highway safety position statement and COBALT assessment form an agenda item. BWB will produce a note setting out the methodology for the COBALT assessment.	**BWB**
	xv. MC confirmed BWB has responded to GN comments on the Stage 1a forecasting report. GN said he has this and will review and reply.	**GN**
	b. PW asked if anyone has any comments on the minutes. No comments received, PW said it is assumed they are agreed, albeit suggested AW adds this to the list of TWG minutes from February 2025 which need to be reviewed (in addition to modelling minutes for 2025).	**AW**

2	**Client update** a. IR provided an update on programme and that Segro has decided to undertake a second statutory consultation process in line with feedback. There will be no public exhibitions but opportunities for people to provide further comments over a period of 28 days. The documents will be submitted in virtually their final form to provide people with more material to review and comment on. Segro will be announcing this next week. b. IR said the decision to re-consult will push back the DCO submission date towards the end of August 2025. c. IR said that meetings have been held with Parish Councils over the last few weeks, including Kegworth, Breedon, Diseworth as well as the Protect Diseworth objection group. There has been positive dialogue about consultation material and design of the community park. d. HH asked if a revised programme will be shared. IR confirmed that once the consultation has been announced with PINS a revised programme will be shared.	**Segro/ BWB**
3	**Traffic flow furnessing** a. PW said comments have been received from NH following which a meeting was held to discuss certain points of detail. A number of actions have been left with BWB to finalise the numbers and it is positive to hear LCountyC are having a meeting to discuss the furnessing numbers too. BWB will therefore await LCountyC's comments before responding to the TWG to ensure everything is covered.	**LCountyC/ BWB**
4	**Stage 2 PRTM modelling update** a. PW confirmed Stage 2a modelling comprises the core scenario which incudes the traffic from the draft Local Plan allocations in the baseline, as requested by the TWG. Stage 2b modelling forms a sensitivity test that excludes draft Local Plan traffic from the baseline. b. PW shared initial Stage 2a modelling outputs from PRTM on screen and summarised the key findings. i. The green package of mitigation has been tested, the key infrastructure being the new M1 NB to A50 free flow link. PRTM is showing that this infrastructure is accommodating a lot of traffic, which in turn is reducing traffic on the M1 NB off-slip and A453, which is positive. ii. There is traffic travelling around the western edge of Diseworth via The Green and entering EMA or EMG2 from the west. iii. The next stage will be to understand the revised AoI under the Stage 2a scenario, which AECOM will provide.	

	c. PW shared a spreadsheet summarising the current modelling position for the initial 17 junctions in the study area (green showing a positive capacity result and yellow highlighting where further assessment is needed). In summary: i. There are capacity issues on the eastern arm of the A453/Hunter Road site access. This is something BWB are considering further as the site access needs to work from a capacity perspective both in PRTM and VISSIM. ii. There is significant betterment at Finger Farm, which is now predicted to operate in capacity. iii. The EMG1 access roundabout is predicted to operate over capacity but there would be nil detriment overall with the inclusion of EMG2. However, this is the access to Segro's EMG1 site, so we are mindful of this. iv. M1 Junction 24 is over capacity but there are benefits overall from the mitigation, except at the M1 SB / A50 approach from the north, which needs further consideration. v. A453/Walton Hill and A50 Junction 1 are also expected to exceed capacity but there is predicted to be nil detriment overall from EMG2. d. PW said that the 300 movements travelling along the A453 west from The Green is occurring because of capacity issues on the A453 to the east of the site after the Finger Farm exit. e. PW said that the current Stage 2a PRTM modelling has coded in the physical highway improvements but not changed the signal timings. If we opitmise the signal timings in PRTM, we should be able to unlock the benefits envisaged as a result of the mitigation proposals at the EMG1 access and M1 Junction 24 in particular. NH has confirmed this is a sensible approach because it will show the true benefits of the mitigation. Optimising signal timings at the M1 SB / A50 slip to J24 should help reduce traffic impacts through Lockington and Hemington. f. PW said that the current Stage 2a modelling codes the eastern arm of the A453/Hunter Road roundabout as a single lane plus flare. However, AECOM has confirmed that flares longer than 60m can be treated as a full lane and therefore BWB propose to increase the flare to 75m to get the two-lane arrangement and allow it to be modelled this way in PRTM as a more realistic approach. g. PW summarised that BWB are working with AECOM to finalise the Stage 2a modelling to test the mitigation and are undergoing an iterative process to reach a position that presents the mitigation in the right manner. Positively, the main M1 NB to A50 link is working, which is the main piece of infrastructure, so these PRTM iterations are to finesse the smaller elements of the mitigation. JM agreed with the above summary.	**BWB/ AECOM**

	h. GN said the above update was helpful. NH are slightly behind in terms of reviewing information but appreciate that work is being undertaken at pace. The caution is that if NH are reviewing the demand for VISSIM and BWB are looking to finalise mitigation, hence there is a slight risk. However, NH appreciate that BWB will be re-testing the numbers in VISSIM using the Stage 2a outputs. i. PW agreed with GN in that BWB are ahead in terms of programme but said that comments from NH on the VISSIM modelling will only be of use to consider when testing the with mitigation scenario. In the meantime, BWB will continue working through the PRTM modelling alongside AECOM. j. PW said that the helpful input from AECOM has allowed for a number of Stage 2a iterations to be completed already and before Forecasting Reports are shared. The tweaks to mitigation and updated modelling follow discussions with AECOM and LCC NDI and reflect our professional judgement and once we have finalised the mitigation/modelling we can share detailed reports.	
5	**TA and ES Assessment Methodology** a. MC recapped to say that a number of conversations have been held on this matter over the last few weeks. An action was left with BWB at the April 2025 TWG meeting to summarise the assessment approach for the TA and ES Chapter within a note. In summary, the Stage 1a outputs will form the core scenario for the TA (with Stage 1b forming a sensitivity test) and Stage 1b outputs will form the core scenario for the ES Chapter (with Stage 1a forming the cumulative scenario). This follows the requirements of TAG M4, Circular 01/2022 and IEMA guidelines. From the discussions held recently, the TWG has agreed with this approach. b. HH asked whether the TA will be appended to the EIA and how this will work if there are two different assessments in not confusing an Inspector. MC confirmed the TA will be appended to the ES and ultimately both scenarios will be tested in both assessments. BWB set out that they appreciated this has the potential to be confusing, but BWB have a think how this can be set out as clearly as possible. From a capacity perspective, the Transport Assessment includes all the local plan allocations in the base which is worst-case from a capacity perspective, but the ES Chapter considers the scenario where EMG2 has the highest impact. This will need explaining clearly and can be left with BWB to consider how best to present this. c. HH asked if it is worthwhile BWB setting out the contents of both documents so that we can agree what these cover. PW said we are currently drafting the TA so can provide the headings of what will be included in the document for comment. HH said that will be useful for both the TA and ES Chapter to avoid any confusion. d. SHI asked if this is already set out in the TA and ES Assessment Methodology Technical Note. Paragraph 2.18 refers to 2.29 of the IEMA Guidelines, which	**BWB**

	states that future baseline and cumulative assessments should not be confused. e. PW suggested that HH is not questioning the approach we've adopted but more how this is explained to make it clear to an Inspector why different assessment methodologies have been adopted in the TA and ES Chapter. f. HH suggested that a skeleton framework setting out what each document will contain will be useful. g. GN asked for clarification that the assessment to mitigate the impacts of the development on the SRN will be based on Stage 1a modelling outputs (proforma v14). MC/PW confirmed that is correct and Stage 1a outputs have been used to reach the current position.	
6	**Sustainable Transport Strategy** a. SM shared a presentation on screen on setting targets for the FTP. i. EMG1 targets from the DCO were derived from the Census data from nearby wards and consider mode shares achieved at EMA. The EMG1 target sought to achieve a modal shift from 80% single occupancy car drivers to 68% across 10 years. ii. Travel Plan monitoring is undertaken annually at EMG1. The average response rate varies between 15% to 30% (DfT recommends 30% as a good sample size). Annual traffic counts at each unit are also carried out. iii. The data collected annually since 2019 has consistently been below the 68% target. The surveys to be carried out in September 2025 will reflect full occupation of EMG1. iv. When EMG2 targets were discussed recently, questions were raised about using 2020 and 2021 survey years because of Covid-19 implications. The three-year average excluding these years recorded a 50% single occupancy car driver mode share, which is really low for a site in this location. v. The 2011 and 2021 Census show that the wards around the site have an 80% to 81% mode share of single occupancy car drivers. vi. The current targets for EMG2 are based on a mix of the surveyed EMG1 mode split and the EMG1 target of 68%. We originally suggested a 65% target for EMG2 but queries were raised as to whether this could be more ambitious. On reflection this was then reduced to 60%, with details circulated in January 2025 and is 8% lower than the EMG1 target. b. SM asked about mezzanines and how these will be incorporated into the targets. PW said that the 2024 surveyed data for EMG1 shows that should	

	the surveyed trip rates at EMG1 be achieved at EMG2, including for mezzanines, then the traffic flows would still be 33% less than what is being assessed in PRTM, even when including for an additional 100,000sqm of mezzanine floorspace. c. SM asked whether the mezzanines are to be used primarily for storage and so would not have a significant impact on staff driving to the site. PW agreed this is correct. d. IR view on FA's email was that further clarification is needed on the assumptions made within the calculations on trip generation. PW said that modal split information cannot be extracted from the data but trip rates and traffic generation can be. e. IR said we need to review the Tavel Plan target and make sure this aligns with the evidence that has been recorded from EMG1. f. SM said the plan for EMG2 is to continue the same monitoring strategy as per EMG1, including annual staff surveys and traffic counts. The surveys are the primary source of information used to monitor the targets. g. FA asked if BWB can send an email setting the targets out. The understanding is that EMG1 trip rates have been used to determine trip generation inclusive of mezzanines. Hence, the 2024 mode share should be used to set the Travel Plan targets so they correlate. This would make the targets more ambitious than what is currently being proposed.	**BWB/ITP**
	h. SM said using the 2024 data would make the targets more ambitious but during historic surveys, EMG1 was still being built out. If the targets are too ambitious and based on pre-completion data, travel patterns may change and make it challenging to achieve. i. FA said that travel patterns can always change but that targets should follow a consistent approach with the mezzanines. IR agreed they should be consistent. j. PW shared his email of 05/03/25 on screen. Using the 2024 surveyed trip rates, a total development of 650,000sqm could theoretically be built to get to the level of trips that are currently being assessed. This is far in excess what has been proposed to date (340,000sqm B8 only at EMG2 including 100,000sqm mezzanine) and wanting to ultimately be achieved (440,000sqm B8 only at EMG2 including 200,000sqm mezzanine). Hence the debate at the outset with agreeing what are considered to be 'worse than worse case' trip rates, which GN acknowledged. k. GN said that NH standard requirement for justifying additional mezzanines is to model the full quantum of development, which isn't happening. NH has discussed this internally and reached a compromise on this. The DCO planning control is one element which Segro has confirmed is acceptable. The other element is to bring the Travel Plan targets up to what is being achieved at EMG1, so do BWB think that this mode share can be	

	replicated at EMG2? If the answer is yes, then there is a positive story that sets realistic but robust targets and we can get the STS updated. l. FA agreed and said the evidence is there to demonstrate that the 56% target is achievable. m. PW said that BWB/ITP will take this away and report back to the TWG with revised targets.	**BWB/ITP**
7	**Highway design** a. SHi asked if JB has an update on the technical information? JB said he is pulling the information together and will call SHi to discuss. NH has received feedback and is concluding this review. b. SHi shared the components development plan on screen and ran through some of the likely changes that will occur since the initial consultation. In summary, this included: i. Improvements to the A453/The Green junction were included in the last consultation but following feedback combined with latest modelling outputs, these improvements have now be removed. ii. The additional flare on the eastern arm of the EMG2 access will be included. iii. We are proposing to widen the A453 westbound exit from Finger Farm to provide a longer distance of two lanes. iv. The motorway gantry and signage changes will be included. The current sign at M1 Junction 23a directs drivers travelling towards the A50 along the A453 but this will be changed to direct drivers to the new free flow link. v. The works to Long Holden now propose to change the status to a public bridleway, which follows feedback from the consultation and the Parish Council. vi. The order limits near M1 SB / A50 link to J24 previously showed works in the floodplain which are being removed. vii. Previously we were proposing lane changes on the A453 Remembrance Way near J24 but these are being removed based on the latest VISSIM modelling which shows the existing lane arrangement is now the most appropriate. c. SHi said from a LCountyC perspective, BWB are looking to issue the equivalent level of detail for improvements on the local road network (EMG2 site access, Finger Farm exit, cycle tracks etc). This includes geometric design principles, identification of departures and so on. This pack of information should be available over the next couple of weeks and allow LCountyC to do their technical checks.	**JB** **BWB**

8	**Construction traffic calculations** a. MC said a revised note was issued last month alongside a draft CTMP, which includes a commitment to cap and monitor construction traffic. NH has confirmed they are happy with the calculations. Whilst mitigation still needs fixing, BWB are now more comfortable with where mitigation is heading following the recent PRTM modelling iterations and so will instruct AECOM to carry out the PRTM modelling for the construction traffic scenario.	**BWB**
9	**Highway safety position statement** a. MC recapped to say this note was shared a couple of months ago, which identified three locations with existing safety problems: i. M1 NB off slip to J24 ii. EMG1 access roundabout iii. A453/The Green. b. The highway safety review will feed into the COBALT assessment and mitigation designs with the view of demonstrating a highway safety benefit. BWB will issue a note setting out the COBALT assessment methodology for agreement. c. SHi asked that once the VISSIM modelling is complete for a discussion to be held on the mitigation requirements to ensure that it takes account of the safety issues as well as for capacity purposes.	**BWB**
10	**Next steps** a. PW summarised the next steps. i. BWB to continue Stage 2a modelling with AECOM and fix the mitigation strategy. ii. There are a number of actions left with others on other items such as reviewing the traffic flow furnessing spreadsheets and forecast year VISSIM modelling. b. MC said that two additional sign off sheets were recently circulated covering the VISSIM LMVR and the construction traffic calculations, so will await responses on those from the TWG. c. MC said that BWB will review and re-send the HGV Route Plan and ensure it sets out the permitted routes for operational HGVs to use.	**NH/ LCountyC/ NCountyC** **BWB**

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 12 JUNE 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
George Nock (GN), Jeremy Bloom (JB), Fiona Ahmed & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Steph Meyers (SM) – ITP
Paul Wilson (PW), Vibeeshan Devaharan (VD) & Simon Hilditch – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) & Rebecca Henson (RH) – Leicestershire County Council (LCountyC)
Laura Good (LG) – LCountyC Network Data Intelligence
Catherine Townend (CT) & Kate Stephen (KS) – National Highways (NH)
Steve Harley (SHa) – Oxalis Planning
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Matt Corner (MC) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

MINUTES:

Agenda item		Action
1	**Review of May's meeting minutes** a. PW shared May's actions on-screen and provided the following updates: i. HH has set out LCountyC's position on future meeting minutes and agreements (i.e. not agreeing minutes from January 2025 onwards) ii. The DCO planning controls for the mezzanine floorspace will be covered in Item 4 of the agenda. iii. Jeremy and Simon have continued discussions on highway mitigation and geometry related matters. Feedback from the structures team has been slower and awaiting feedback from experts at NH. SHi agreed and has an agenda item at the meeting to provide a further update. iv. Furnessing spreadsheets will be discussed but updates have been shared with GN in particular. v. Furnessing forecast year modelling has been replaced given recent changes/discussions. vi. The COBALT Assessment Methodology note was issued. vii. George had responded to BWB's response to NH Tech Note on 16/5/25 and stated that they *"are currently awaiting resubmission of the demand flows for the VISSIM modelling and haven't yet been sighted on the full impact assessments but are looking forward to receiving those soon"*.	

	viii. An informal programme update will be provided in the meeting. ix. Stage 2A modelling work has continued to be progressed alongside AECOM. x. Discussions have continued regarding the TA and ES Chapter assessment methodologies, with focus on the Stage 1A and 2A modelling scenarios. HH comments raised during the modelling meeting about mitigation strategy has been raised with Segro. xi. TA And ES Chapter headers/structure was circulated. xii. Travel Plan targets were confirmed with the TWG. xiii. Construction traffic modelling has been progressed with numbers now agreed with NH and NCountyC. xiv. An update will be provided on the current position with sign off sheets. xv. An updated HGV Route Plan was circulated and there is no need for any specific measures to control the routes HGVs are permitted to use. b. PW asked if there are any comments on the May meeting minutes. No comments received hence they are agreed by all, bar LCountyC.	
2	**Traffic flow furnessing** a. PW said an email was sent by Charlie Cresswell of BWB with updated traffic flow furnessing spreadsheets and an approach for the Stage 2A furnessing approach on 10/6/25. b. GN summarised his understanding that the email covers the 'without mitigation' scenario and then sets out the approach that will be undertaken to furness the flows for the 'with mitigation' scenario. c. GN asked that the detail for the 'with mitigation' scenario is set out, even if by email first of all, before the report is updated so that this can be reviewed and agreed by NH. GN asked if any of the other authorities will be reviewing the information. d. AW said that LCountyC will be commenting on the furnessing methodology and forecast traffic flows. PW said he will await further correspondence but confirmed that BWB are continuing with the forecast year modelling/mitigation using traffic flows derived based on the previously agreed furnessing methodology.	**BWB** **LCountyC**
3	**Stage 2 PRTM modelling update** a. PW re-capped on the presentation AECOM provided at the modelling meeting which provided details on the proposed highway mitigation, which will be detailed further in the TA. The presentation also covered the approach taken to optimising certain nodes in PRTM to unlock the full benefits of the mitigation and attracting as much traffic onto the SRN. b. GN asked about timescales for receiving the Stage 2A forecasting report. JM said the report is due today. PW will review before it is circulated to the TWG (subsequently issued on 19/6/25).	**AECOM/ BWB**

	c. PW acknowledged that work has been on-going behind the scenes with AECOM to finalise the mitigation strategy but that details have not been fully shared or discussed with the TWG, other than updates at the meetings. However, the iterative process has hopefully got us to a suitable position. d. PW shared a summary table on screen of the VISSIM modelling results. The Stage 1A/2A modelling results show that delays increase and speeds reduce with the inclusion of EMG2 traffic. However, the proposed mitigation reduces delays and increases speeds so that there is betterment compared to the Stage 1A without development results. This results in a greater volume of traffic being able to enter the VISSIM network. e. SHi asked that the details of the results are presented in the TA before the information is submitted i.e. do delays reflect average delays across the entire VISSIM network area. f. PW said that the latest results include for more recent changes to road markings and lane configurations on the A453 northbound for movements towards Nottingham. BWB will present the results in the TA, which may slightly change as details are finalised but the conclusions should remain consistent. g. FA asked if the summary results tables will separate links on the SRN and LRN. PW said he would check with VD as to how results will be presented. However, there will be modelling results of all other standalone junctions, a number of which are on the LRN, so there will be some separation. The forecasting report will also provide further information for junctions on both the SRN and LRN. h. PW reminded everyone that there was an original list of 17 junctions that were agreed to be included in the study area. When looking at the Stage 2A modelling results, the study area reduces because more traffic is attracted to the SRN. This aligns with discussions held with LCountyC in the past, but nonetheless modelling results of the original list of 17 junctions will continue to be provided in the TA.	
4	**Mezzanine increase** a. PW referred to emails between BWB and FA. Initial draft wording setting out how the use of the mezzanine floorspace will be controlled has been shared and this will be tied with the 56% single occupancy vehicle mode share target. The principle has therefore been provided but the details need finalising. b. FA has seen the email and proposed wording (included in the TWG meeting agenda email dated 11/6/25). NH will need to send it to their legals team for their comments before responding. c. SHi said that NH planning lawyer has been speaking to Segro's planning lawyer. So long as the project team are copied in, they can liaise directly.	**NH**

	d. PW said that the additional 100,000sqm mezzanine (200,000sqm of mezzanine in total) will therefore be included for on the Parameters Plan.	
5	**Sustainable transport strategy** a. SM shared a presentation on screen. The previous conversations were helpful in finalising the targets and setting the 56% single occupancy mode share target. This compares to a 68% target set at EMG1. Segro have now accepted this which will be the 10-year target. The Travel Plan will set this out, along with interim targets. b. SM said that the average single occupancy vehicle mode share will be used to track progress against the interim targets. For example, year 3 targets will be calculated as an average of Years 1, 2 and 3. This helps to reduce the impacts of any fluctuations that can occur when new occupiers move in. c. AA asked whether there will be a review of the targets or offering of other interventions if the targets on not met? SM said that Segro have committed to carrying out all the monitoring activity (vehicle counts, surveys etc.), which will be fed back to the Sustainable Transport Working Group to understand whether any other interventions are required. In the early years, this may require more engagement with businesses whilst large parts of the site are still unoccupied. Additional monitoring may then be more appropriate in later years, which is detailed in the Framework Travel Plan. d. FA said the approach of calculating an average mode split over an interim 3-year period sounds reasonable. The Framework Travel Plan and Sustainable Transport Plan will need updating to reflect the 56% SOV target. e. SM confirmed the documents will be updated to reflect the revised SOV target and the revised public transport mode share target. The Sustainable Transport Strategy will also be updated to include the 10-year data collected at EMG1, which should align well with the end date of the monitoring period which finishes in 2028. f. PW asked if BWB can have a copy of the presentation to forward to the TWG. SM said she will send the presentation once it has been updated with final details (SM subsequently sent a follow up email to the TWG on 20/6/25). g. PB asked if the reduction in single occupancy vehicle trips will be tested through PRTM. PW said there are no plans to test this because all the work provided to date provides a worst-case and we are on a fixed path in terms of mitigation. If we run the reduced trips through PRTM then the results will simply show further betterment to what will be shown within the core scenarios. This can be covered in the TA.	**SM** **SM**

6	**Highway design** a. SHi shared a presentation on screen with the following updates on highway design matters. i. Overview of highway works plan is colour coded to show works on the SRN (blue), LRN (pink) and active travel works (green). ii. There have been changes at M1 Junction 24 which now include changes to lane allocation on the A453 southbound to best balance traffic flows across the lanes. iii. The west side of the M1 Junction 24 circulatory has more substantive changes with the A453 northbound to A50 westbound segregated left turn lane removed and three lanes allocated for M1 northbound to A453 northbound traffic. This is to reduce conflict points on the A50 and provide capacity for the key M1 to A453 north movement. iv. The geometric alignment of the new M1 northbound to A50 westbound free flow link has been fixed (subject to departure approvals). v. The M1 northbound corridor and location of the new A50 exit has been considered further in terms of weaving distances. The current location of the auxiliary lane exit is considered most appropriate as it balances the spacing of exits and weaving distances. vi. The locations of the gantry signs and signals have been considered and will be shown within the next pack of drawings. vii. We have considered where the merge from the A42 joins the M1 northbound. There is elongated paint work from the existing merge that arbitrarily reduces the weaving length so this can be reduced to help increase the weaving length. viii. Changes to signing on the M1 northbound will be proposed to direct drivers travelling to the A50 westbound to the new free flow link. ix. The section of the A453 between the EMG2 access and Finger Farm will be widened to increase the flare length. The Finger Farm westbound exit will also be widened to extend the distance of two lanes before the merge. AW said LCountyC are reviewing the scheme and will provide design comments soon. b. AW referred to the overview of highway works plan and questioned whether the A453 parallel to the M1 and the gyratory of Finger Farm roundabout are actually part of the LRN. SHi said that the plans show this part of the network being on the SRN but will check. AW subsequently confirmed the BWB plans are correct.	
7	**Construction traffic** a. PW referred back to previous conversations with NH, which resulted in the traffic flows being updated, with the final figures presented in the Technical Note that has been shared. AECOM has now been instructed to carry out the modelling, which we appreciate is slightly at risk, so we will be able to provide further information on the modelling results once available.	

	b. GN asked what the reporting procedure will be for construction traffic modelling. JM confirmed the reporting for the PRTM construction traffic modelling will include flow difference plots and V/C ratios which will be combined in an Addendum to the forecasting report. c. GN asked if the projections for light vehicles and HGVs can be provided to show the distribution. JM said this can be included in the reporting.	**AECOM** **AECOM**
8	**Highway safety position statement/COBALT Assessment methodology** a. PW referred to the Highway Safety Position Statement, which identified safety issues at the M1 northbound off-slip to Junction 24, the EMG1 access near the A6 Kegworth bypass arm and at the A453/The Green junction. b. PW said the COBALT Assessment was completed and issued on 12 May 2025 in line with the methodology previously proposed that NH had input to. However, if there are any comments on the methodology then we will try and take these on board.	
9	**Sign off sheets** a. PW provided an update on the current position with sign off sheets. To date formal agreement has been received on 10 documents with NH, 9 with NCountyC and none with LCountyC. b. SHi asked if LCountyC can provide comments on WHCAR Assessment given it is a baseline document and should not be influenced by the proposed highway mitigation. AW said he thinks he has requested comments but will check and come back. c. TBo said that NCountyC has not responded to the WCHAR Assessment and asked whether any of the active travel routes extend into Nottinghamshire. SHi confirmed the active travel routes are not within Nottinghamshire. TBo suggested there should be no need for NCountyC to comment on this document as a result. d. PW said there are a few documents that have been shared but are yet to be followed up with formal sign off sheets (Highway Safety Position Statement, HGV Route Plan, CTMP for example) and so BWB will issue sign off sheets in due course to try and obtain formal agreements on as many documents as possible ahead of the DCO/MCO submission. e. GN queried whether the VISSIM forecast modelling report has been issued, as this is not on NH record. PW said he would check on this and confirm.	**AW** **BWB**
10	**2023 PRTM** a. PW referred back to the modelling meeting where the 2023 PRTM model was discussed. The understanding is that the network within PRTM 2019 and 2023 differ so there is not an easy comparison that can be made but an Excel spreadsheet type approach is possible, which AECOM will think about how to best present.	**AECOM**

	b. PW said that we need to build up a profile of information to understand the difference between the two models and how this changes the current position, hopefully without re-running all scenarios again. c. PW said the PRTM 2023 modelling won't be available before the consultation but asked whether AECOM have any thoughts on how to complete this work. d. JM said that 2023 forecast base year flows are available in both PRTM 2019 and 2023 which can be compared. The two networks are different, as mentioned above but a comparison can still be made in Excel of key routes/nodes to get a feel for the differences in traffic flows. The base year is where the forecast years pivot from, so comparing the base years will give a reasonable understanding of the differences between the two models. e. PW agreed that comparing the base year flows is the best starting point. GN also agreed and that this will confirm whether any further assessment in PRTM 2023 is required. However, a comparison to compare the 2028/2038 flows will probably be required as well. f. PB asked whether a HGV % should be considered for further robustness. JM said that vehicle classes can be compared in PRTM and will report back on the above as a result	
11	**Next steps/high level programme** a. PW summarised the next steps: i. There will be a second (non statutory) consultation starting on the 1st July 2025 for a period of 28 days. A nearly complete Transport Assessment will be available, perhaps with the exception of the Stage B modelling results and construction traffic. ii. All the work included in the current programme should be available for in the consultation information. iii. The VISSIM modelling is close to being finalised subject to a few final tweaks following which we will share VISSIM models and results. b. SHi added that there will be updated design information available possibly ahead of the consultation. c. AA asked if the TA will indicate where data is missing. PW said that where there are gaps this will be highlighted under the relevant chapter headers. Positively we know the conclusions of the TA which should now remain unchanged and so these will be presented in the TA for the consultation.	
12	**AOB** a. PW asked if there is AOB. No further comments received, so PW thanked everyone for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 10 JULY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN – from 10:30 hours) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence (NDI)
Paul Wilson (PW), Matt Corner (MC) & Charlie Cresswell (CC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) & Kate Stephen (KS) – National Highways (NH)
Harry Horsley (HH) & Rebecca Henson (RH) – LCountyC
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
Jeremy Bloom (JB) & Fiona Ahmed (FA) – c/o Jacobs; NH transport consultants
Laura Good (LG) – LCountyC NDI
Steve Harley (SHa) – Oxalis Planning
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Steph Meyers (SM) – ITP
Vibeeshan Devaharan (VD) & Simon Hilditch (SHi) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

MINUTES:

Agenda item		Action
1	**Review of June's meeting minutes** a. PW shared June's actions on-screen and provided the following updates: i. BWB will follow up with the spreadsheets comparing the furnessing methodology adopted in the TA against the approach suggested by PB at June's meeting. AW confirmed LCountyC have started their review of the furnessing but asked for files with recent correspondence so that everything is in one place. PW said that BWB will be sending an update to NH in response to their questions which will set out the current position and should help LCountyC get up to speed. ii. BWB will issue the revised Stage 2A and 2B PRTM forecast modelling reports. iii. Conversations are on-going between the Applicant's and NH's legal teams regarding the wording to control the use of the mezzanine floorspace in the DCO. iv. ITP have updated the FTP and STS documents which are included in the non-statutory consultation. A final comment was received from FA regarding the mode share targets which is being considered by SM.	**BWB/ LCountyC** **BWB** **SM**

	v. Presentation slides relating from June's meeting on the FTP and STS were shared. vi. Conversations have been ongoing about the construction traffic modelling in PRTM and associated forecasting reports. vii. BWB awaiting comments from LCountyC on the WCHAR Assessment report. AW confirmed LCountyC are reviewing this and will refer back. viii. The revised VISSIM forecasting report is included at Appendix 47 of the TA submitted with the non-statutory consultation. However, BWB will issue VISSIM models to NH so they can carry out a more thorough review. PW updated everyone to say that there have been recent changes to the VISSIM base model following a further review by NH. The base model has been updated and shared with NH who have since agreed the changes. ix. On-going conversations are being held with AECOM about the PRTM 2019 vs 2023 model. b. PW asked if there were any comments on the June meeting minutes. NCountyC confirmed they are happy with the minutes, with NH to check. No comments received from LCountyC.	**LCountyC** **BWB**
2	**Non-Statutory Consultation** a. PW said the non-statutory consultation has been live since 1st July 2025. The consultation will be on-going for 28 days until 29 July 2025, which hopefully gives people chance to review the information, but appreciated there is a substantial amount of work. However, BWB are here to answer any questions in the interim if required. b. PW said a copy of the TA has been submitted with the non-statutory consultation. This is a largely complete document with the exception of the Stage 2B modelling outputs and the construction traffic modelling which will be included ahead of the DCO submission, which is due to be submitted by the end of August. c. PW asked if there are any initial comments on the TA. No comments were received at this stage of the process.	
3	**Stage 2A PRTM Forecasting Report** a. PW deferred to JM about the comments received from NH on 26 June 2025 regarding the Stage 2A PRTM forecast modelling. These requested further information and specific outputs across certain parts of the model. b. JM summarised the comments received from NH and shared an Excel spreadsheet on screen. The new link road has been coded as a single lane and the new merge onto the A50 westbound has been coded with a saturation flow of 2,000 PCUs. The existing A50 link has two lanes with a saturation flow of 4,000 PCUs. Further north, the A50 reduces from three lanes to two lanes and this is reflected by the saturation flows.	

	c. JM asked if the Stage 1A results are required for this section of the network in addition to the Stage 2A results. ACH and GN said if the information is available then send it, but if not then the Stage 2A results should be sufficient for NH review. JM said the information can be relatively easily extracted so will provide this as a comparison. d. ACH said that NH are also interested in the A50 / M1 southbound merge at Junction 24A further north. JM said that this information will be added into a revised version of the spreadsheet. e. GN said the A50 / M1 southbound merge at Junction 24A is a critical node that NH are interested in as the PRTM forecast report highlighted delays at this location, so understanding the difference between the with and without development scenarios will be important. f. JM presented the development flow plots confirming that PRTM is assigning 54 cars along the Castle Donington High Street towards the site during the 2028 morning peak hour. PW said that this therefore marginally exceeds the 50-movement threshold discussed during June's meeting, hence in his opinion is not a significant increase. GN confirmed this clarifies the previous question raised by NH. g. PW asked for AW thoughts on the traffic increases through Castle Donington, as this was an issue raised by RH at the beginning of the project. During the public consultation events conversations were held with members of the Parish Council's, who suggested that drivers are more likely to travel along the bypass rather than the High Street. AW said that in his experience of travelling this route, the High Street is a quicker route even though traffic calming has been introduced. h. JM referred to the Excel spreadsheet and said that it also contains further information along the M1 mainline, M1 Junction 24, Finger Farm, A453 Kegworth Bypass (EMG1 access) and the A50 mainline. The information includes traffic flow differences, delay changes and V/C changes. JM pointed out that the V/C ratios reflect the worst case turn at each junction and so the values will be slightly different compared to the worst-case V/C ratios at the arms. i. GN said that the information presented by JM covers everything asked for subject to receiving data for the A50 and M1 southbound merge near Junction 24A.	**AECOM** **AECOM**
4	**Traffic flow furnessing demand matrices** a. PW said that revised information will be circulated to the TWG taking into account the latest comments received from NH. This information will be issued next week and takes into account the methodology previously agreed. A comparison will be made against the methodology suggested by PB for completeness.	**BWB**

5	**Modelling Review in TA and updated VISSIM related work** a. PW shared a copy of the TA on screen and provided an overview of the details in Table 57 of Section 13 summarising the results of the VISSIM forecast modelling for the 2028 Stage 2A scenario. The results show that the EMG2 development will cause higher average delays and reduced speeds across the VISSIM network compared to the without development scenario. However, with the inclusion of the proposed highway mitigation, average delays will reduce and speeds will increase compared to the without development scenario. This results in a significant reduction in latent demand and an increase in the number of vehicles that can travel through the VISSIM network and Strategic Road Network. Therefore, the proposed highway mitigation provides an overall benefit to the Strategic Road Network compared to the without development position. b. PW read through Paragraph 16.14 of the TA on screen which relates to the Stage 2A PRTM modelling (with development, with mitigation scenario). This states: *"The proposed highway mitigation was tested in PRTM which showed that the Strategic Road Network would be able to accommodate an additional 2,910 vehicles during the peak hour periods in 2028 and 2,551 during the peak hour periods in 2038 (less in the latter because there is more traffic in the network). This reduces traffic on a large number of local roads, as well as the A453 corridor between Finger Farm roundabout and M1 Junction 24. The highway mitigation is expected to reduce delays on the M1 Junction 24 circulatory and EMG1 roundabout. Overall, there would be significant benefits to the operation of the Strategic Road Network in the vicinity of the site, as well as benefits on large parts of the local road network."* c. PW summarised to say that the above paragraph sets out the overarching conclusion of the TA in terms of the benefits that will be gained from the proposed highway mitigation.	
6	**Construction traffic modelling** a. PW confirmed that the PRTM forecasting report for the construction traffic modelling has been received from AECOM. This shows that there are no significant impacts on the network from construction traffic. BWB have reviewed the document and have a comment to run past AECOM before a copy is circulated to the TWG. JM said the revised report can be turned around quickly. b. PW said that a revised Stage 2B forecasting report is also required from AECOM taking into account a minor comments raised by MC earlier in the week. JM said this will be reviewed and re-issued.	**AECOM/ BWB** **AECOM**

7	**2023 PRTM Modelling** a. PW said that AECOM will be carrying out the PRTM 2019 vs 2023 comparison. JM said a note has been drafted which will be sent to LCountyC NDI after the meeting and once they're happy they will send to BWB. b. PW asked about timescales receiving the note. JM said it will be issued to LCountyC NDI at lunchtime on 10/07/25.	**AECOM**
8	**AOB** a. PW summarised the following items: i. SM will be updating the FTP and STS. BWB will update the WCHAR Assessment and take on board any comments from LCountyC when they are sent. ii. Drafting the mezzanine legal text is on-going with the lawyers. iii. JB provided comments on the Highway Safety Position Statement which BWB will take on board and include within a revised version of the TA. However, BWB will also respond via email to acknowledge these comments. b. MC provided an update on the following items: i. In terms of sign off sheets, once the FTP and STS have been updated the Transport Reporting 1 sign off sheet can be signed and returned as formal agreement. ii. Similarly, once NH comments on the CTMP have been addressed, the Stage 1F Modelling sign off sheet covering the construction traffic calculations can be signed and returned as formal agreement. iii. BWB will carry out a review of what other documents can be issued with sign off sheets. At this stage, this will include the revised VISSIM base model, HGV Route Plan and COBALT methodology note. iv. In terms of the CTMP, BWB has received a revised version from Taylor Skelton taking on board the comments received from NH. Once we are happy this has addressed NH's comments, we will share a version with the TWG. v. Progress has been made on the highway design elements. A full pack of information has been issued with the non-statutory consultation, some of which has been updated based on feedback received from the TWG and the original consultation. Positive comments have been received from LCountyC and NH on the technical details and geometric design and BWB will respond to the issues raised. We will also await any comments on the Access Right of Way, Speed Limit and TRO plans in due course. vi. The Stage 1 RSA brief will be issued shortly which BWB will seek agreement on before commissioning the RSA. AW said he cannot recall seeing the brief or CVs. PW said BWB will check where this is at.	**SM/BWB** **BWB** **BWB** **BWB** **BWB/NH/ LCountyC** **BWB**

	c. AW understands that PINS have issued advice to Segro on the assessment methodology and that the EMG2 / highway works should be assessed separately as well as cumulatively and whether BWB plan to respond to PINS on this. d. PW said that BWB are aware of this and that there will be separate MCO applications for Plot 16 at EMG1 and DCO applications for the EMG2 Works. The MCO will be assessed separately and details will be included in a separate document that will be appended to the TA and ES Chapter. Plot 16 at EMG1 is only expected to generate approximately 60 vehicular trips, which does not warrant PRTM modelling in its own right but there will be a way to assess this application in isolation. e. PW thanked everyone for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – TRANSPORT WORKING GROUP MEETING; THURSDAY 14 AUGUST 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Tim Bellenger (TBe) – East Midlands Combined County Authority (EMCCA)
Anthea Anderson (AA) – Leicester City Council (LCityC)
George Nock (GN) & Fiona Ahmed (FA) – c/o Jacobs; NH transport consultants
Aled Davies (AD) – AECOM
Laura Good (LG) & Patrick Brooks (PB) – LCountyC Network Data Intelligence (NDI)
Steph Meyers (SM) – ITP
Paul Wilson (PW) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants
Ian Rigby (IR) – Segro

APOLOGIES/ALSO ISSUED TO:
Kate Stephen (KS) – National Highways (NH)
Rebecca Henson (RH) – LCountyC
Daniel Sullivan (DS) & Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Jeremy Bloom (JB) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Steve Harley (SHa) – Oxalis Planning
David Green (DG) & Stefan Stojsavljevic (SS) – Delta Planning
Jonathan Morrow (JM) – AECOM
Matt Corner (MC), Charlie Cresswell (CC) & Simon Hilditch (SHi) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of July's meeting minutes** a. PW shared July's actions on-screen and provided the following updates: i. Revised furnessing spreadsheets taking on board comments from NH were shared and are covered as an agenda item. ii. The revised 2A and 2B PRTM forecasting reports were issued and are covered as an agenda item. iii. The WCHAR assessment is covered as an agenda item. iv. The revised VISSIM models were sent to NH. v. Information was provided by AECOM with details on the M1 NB to A50 WB merge which was passed on to NH. vi. BWB issued the construction traffic modelling PRTM forecasting report which has since been approved by NH. vii. Information is due to be provided by AECOM regarding PRTM 2019 vs 2023 flows. viii. Comments were received from NH on the Highway Safety Position Statement, which have been taken on board in the TA. ix. An update on sign off sheets will be covered as a separate agenda item. x. In terms of Stage 1 RSA matters, BWB would like to undertake these now on the basis that if the mitigation changes then an addendum	**AECOM**

	will be required. HH said LCountyC would not support this approach as it does not align with the guidance. LCountyC and other stakeholders would like to be in attendance at the audits, following completion of the agreed briefs and concept plans. This is key when there are departures in place too. FA said NH has similar thoughts and would want the mitigation to be determined before audits are carried out. b. PW asked if there were any comments on the July meeting minutes. No comments were received hence they are agreed.	
2	**Client update** a. IR provided the following updates: i. The non-statutory consultation finished on 29th July 2025. There were a small number of responses received. ii. The DCO planning submission target is end of August 2025. iii. Conversations will be held with BWB about the Stage 1 RSA discussions to understand implications on timescales and programme. iv. Revised wording for the DCO relating to mezzanine floorspace has been shared. PW shared the wording on-screen. The last sentence is the critical part and confirms that no office use shall be permitted within the mezzanines, which restricts the use for storage and mechanisation. GN said that the revised wording has been sent to NH legal team for their review.	**NH/LCC**
3	**Access proposals** a. GN shared his screen showing a drawing with the current access strategy and said NH understanding is the A453/Hunter Road access has been modelled in PRTM and VISSIM. GN asked what the western access is and the status of this (highlighted in orange). IR confirmed that this was the original access strategy which has now been removed and so there will be one point of access when the DCO is submitted. b. HH asked why the potential secondary access was included in the non-statutory consultation? IR said the main driver for the single point of access from the A453/Hunter Road roundabout was the public transport strategy and feedback from stakeholders and the public transport operators who wanted the bus interchange served from the primary access. c. PW said that the focus of the modelling has been on the one site access. GN said that there is a bullet point reference in the TA which needs updating. d. HH also said the secondary access is included on the DCO and parameters plans. e. PW said that BWB will review the TA and accompanying plans and ensure that reference to the secondary access is removed before submission.	**BWB**

4	**Modelling related items** a. PW referred to the August 2025 modelling meeting and that NH confirmed they have received all information but will need time to review and formally respond. Key items include: i. Revised furnessing demand spreadsheets were issued on 07/08/25. AW has provided further comments which will also be taken on board. GN said there is no update as yet but will feedback on the latest spreadsheets. ii. Revised VISSIM models were issued on 07/08/25. GN said that the outputs show different modelling results (but no change to conclusions) to what was submitted with the non-statutory consultation. NH are therefore looking back through the Stage 1A results before moving on to Stage 2A. iii. M1 NB to A50 WB merge; PW issued an email on 28/07/25 followed by a separate email from SHi on 31/07/25. GN said that JSJV review of the information has been completed and NH response will be sent within a Technical Note by the end of w/c 18/08/25. iv. Standalone junction models were issued on 25/07/25. GN said that the base model validation was carried out by NH a while ago, so it is a case of inputting demand flows and reviewing the model results. NH focus is on the VISSIM but will respond on the standalone junction modelling too. v. Stage 2A and 2B forecasting reports were issued on 14/07/25. vi. Construction traffic forecasting report was issued on 14/07/25. Approval has been received from NH and we await comments from LCountyC and NCountyC.	**NH** **LCountyC/ NCountyC**
5	**PRTM 2023** a. PW said that AECOM have been commissioned to carry out the PRTM 2019 vs 2023 flow comparison. Following that the PRTM modelling work can be commissioned. b. AD said that the initial flow comparison is underway and needs reviewing before being issued early next week. c. PW asked what will need to be done in terms of agreeing the PRTM 2023 proforma? AD said a new proforma will be helpful for AECOM. The 2023 model has a different planning dataset. The proforma will allow stakeholders to feed into what is required for the PRTM 2023 modelling. d. PW confirmed the proforma will be produced following AECOMs initial flow comparison. e. HH referred to the modelling meeting and that LCountyC position is that PRTM 2023 modelling is required and should consider the land uses and quantum of development for the DCO and MCO. This evidence base will be useful to present during the Examination and can also include modelling of the wider East Midlands Growth Point to understand whether the mitigation for EMG2 can form part of the wider holistic scheme.	**AECOM**

	f. GN agreed that the PRTM 2023 modelling will be useful in addressing certain outstanding queries and NH would be happy to feed into the proforma. g. AA asked about an email sent on 23/07/25 about the Ashton Green scheme. It was understood that highway information from this scheme was required for the uncertainty log but asked whether this relates to the current permission or the wider allocation. h. PW said the drawings shared by BWB were the ones approved under the latest permission but appreciating AA may want to check and confirm this. AA said she would review and refer back.	**AA**
6	**WCHAR Assessment** a. PW referred to FA email of 05/08/25 which raised a comment on the PIC data, which has been dealt with in the TA. b. PW asked if the WCHAR Assessment is now agreed? FA confirmed the WCHAR Assessment is now agreed from NH's perspective. The additional PIC data request was asked for to check hotspots on the network. c. PW asked for LCountyC's position on the WCHAR Assessment.AW said LCountyC will take NH's lead on the WCHAR Assessment given the majority of the works are focused on the Strategic Road Network.	
7	**Sustainable transport** a. SM reminded everyone that at the last meeting she attended, the mode share targets were discussed, and it was agreed that a 56% single occupancy car driver target would be set for the end of the Travel Plan period. The STS and FTP were subsequently revised and shared with all stakeholders as part of the non-statutory consultation. b. SM shared a presentation on screen and summarised the following feedback received from the non-statutory consultation: i. NH – targets should be fixed for the entire Travel Plan period. SM confirmed that the text has been amended to address this comment. FA confirmed that NH are now content with the STS and FTP. ii. SDDC – the text should include reference to the Airway 9 service. This has been updated in both the STS and FTP. c. HH asked about the financial contribution and whether it is specified in the DCO and who the money would go to? d. SM said the level of contribution is not specified in the documents but it can be if required. e. IR said that the funding is a Segro fund and managed by the Sustainable Transport Working Group (STWG).	

f. SM said there is an appendix to the STS which sets out the bus services that could benefit from having additional funding through the STWG. The funding could go towards addressing capacity issues or funding additional services because of patronage limitations and commercial matters. The voting members of the STWG would come together and agree where the funding is best placed.

g. HH asked if the bus services that the funds may be of most benefit to are set out in the public transport strategy and whether the document commits to a certain level of public transport accessibility that is appropriate to the scale of development.

h. SM said that only one of the four existing services are currently struggling commercially, which is the Airway 9.

i. HH asked if a commitment could be included within the STS and FTP to a minimum level of bus services so that a minimum frequency is maintained that supports demand and the Travel Plan targets.

j. IR said that this will be determined through the STWG. There is a bus fund of £1.45M and a Travel Plan fund of £850k, which are available over the lifetime of the Travel Plan period (10 years).

k. HH said that this means there is circa £140k of funding available per year should services need funding. Alternatively, the STS could commit to a minimum bus service level. There is concern that £140k per year is not enough to sustain a service.

l. SM said that HH comments assume the public transport operators are not bought into servicing the site, which they are. On-going discussions have been held with the bus operators who view EMG2 as a key location for growth and sustaining a bus service.

m. HH appreciated that position but said there is still a risk that things change and bus operators may change their minds in the future, either for commercial reasons or other.

n. IR said that the public transport strategy follows the same model adopted at EMG1 which has been really successful.

o. TBe said a fund of £145k per year does seem low and whether there is scope to include flexibility within this. IR said that is the purpose of the STWG which allows flexibility in terms of where the funding can be used.

p. SM said that the STWG has representatives from most local authorities who have voting powers. When we have met in the past, there has been consensus from voting members as to where the funds need to be spent. The funding is not set on an annual basis but is available to use when issues are identified. The measures adopted at EMG1 happened organically and the strategies changed over time which is why a flexible approach is deemed the most suitable. The funding pot is made available to use on a variety of things depending on what is most important at an appropriate time. A

	criteria is set to allow the voting members to guide where the funds are spent. q. Tbe thanked SM and said the public transport functions at Derbyshire, Nottinghamshire, Derby City and Nottingham City will be transitioning to EMCCA from December 2025. EMCCA will then be producing a bus services improvement plan covering the four authorities with the aim of improving connectivity between those areas, EMG1, EMA and EMG2. r. SM asked if there are any specific actions to be taken on board after the meeting? s. HH said the main action is for the strategy to be reviewed and the risks to LCountyC and other authorities to be reduced. If there is a minimum level of servicing that the Applicant can commit to, then it reduces the risk and burden on the local authorities, particularly if the bus fund would not be enough to support new services etc. SM said she will take this away and update the strategy where needed. t. HH also said there is significant housing growth in the area and so the public transport strategy should tie in with the wider growth rather than look at EMG2 in isolation. u. SM said that conversations have been held with Uniper to understand their sustainable transport strategy and how they can link things together. Initial conversations have also been held with Isley Woodhouse. HH said details of those conversations should be detailed in the STS. v. SM suggested that the developers of the other strategic sites in the East Midlands Growth Point could be non-voting members of the EMG2 STWG. w. HH agreed this would be beneficial and the documents could also commit to exploring opportunities to working collaboratively with neighbouring developers to provide a comprehensive public transport strategy as wider growth comes forward. SM said she would take this away and consider.	**SM** **SM** **SM**
8	**Sign off sheets** a. PW referred to MC's email of 12/07/25 which sets out the latest position on sign off sheets. i. Construction traffic calculations have now been agreed with NH. ii. The STS and FTP have just been discussed so once these have been updated we can consider appropriate sign offs. iii. The HGV route plan can now be signed off. FA confirmed NH are happy with this. iv. Comments have been received from NH on the Highway Safety Position Statement and whether this document can be signed off, even if NH comments are included. FA said she will speak to JB about this. v. BWB responded to FA email on the COBALT assessment which hopefully addresses NH comments. FA said that the main comment	**NH** **FA** **BWB**

	is why BWB have used the default PIC rates rather than observed PIC data. PW said he will consider and respond. FA suggested that the note is updated to formally set out the points of clarification and detail. vi. EMFM Stage 1A and 1B forecasting reports have been issued and can hopefully be signed off. GN said that NH can sign these two documents.	**NH**
9	**AOB** a. PW said that the CTMP has been agreed with NH and asked whether there are any final comments from LCountyC or NCountyC. PW will follow up with NCountyC separately, who were unable to attend the meeting. b. PW asked if LCountyC will be reviewing the CTMP or if they will defer to NH. HH said LCountyC will review the PIC data in the TA but will defer to NH on the COBALT assessment. c. PW said a Highway Safety Position Statement has been produced and issued some time ago which reviewed PIC data across the entire study area. This included a review of all 17 junctions which we appreciate some are now less of a concern following the Stage 2A modelling. d. HH agreed and said that LCountyC will not sign things off until they are formally agreed but it is clear that BWB are heading in the right direction on certain areas. The order of events is key and LCountyC can approve documents at the appropriate time. e. PW asked LCountyC if there is any preparation needed ahead of the in-person meeting on 15/08/25. HH said it is an opportunity to provide an update of where the TA is at, what remains outstanding and what the strategy is moving forward. This will no doubt generate questions and discussion points. f. PW thanked everyone for their time and ended the meeting.	**LCountyC/ NCountyC**

APPENDIX 20: Modelling Meeting Minutes

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 5 SEPTEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) – National Highways (NH)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Base model sign off recap** a. MC provided a recap on the previous agreements made with the base model work: i. No concerns with the current PRTM LMVR Addendum but questions raised as to whether changes to EMG1 flows affects anything. BWB to liaise with AECOM to confirm this. ii. VISSIM base model all fine as per previous agreements; these can be woven into a specific SoCG. iii. NH and NCC are comfortable with all standalone J10/Linsig models (noting the next point) but LCountyC still need to review and will do so once the revised forecast modelling is complete and an AoI has been agreed. iv. BWB to ensure that all future standalone modelling uses agreed models, as NH identified old model used for M1 Junction 25 previously. v. BWB to circulate updated sign off sheets with a notes box either next to each approver or at the bottom of table.	**BWB** **BWB** **LCountyC** **BWB** **BWB**
2	**Recap on the strategic modelling scenarios and stages** a. MC provided a recap on the strategic modelling scenarios/stages: i. No concerns with the current assessment years being tested (2022, 2028 and 2038). ii. Agree that consideration is needed of Covid factors but discussion held as to whether this should be undertaken in the core assessment rather than a separate sensitivity assessment. BWB to	**BWB**

	discuss with AECOM. iii. The principle of a vision and validate assessment agreed, but LCC suggested this could form part of the mitigation scenario given it sits alongside the physical mitigation strategy. BWB to liaise with AECOM and include on September TWG meeting. iv. NH raised concern that the 2023 survey data provided by ITP was recorded in October during school holidays hence may not be valid. BWB to liaise with ITP.	**BWB** **BWB**
3	**Forecast modelling strategy/assumptions** a. PW confirmed that BWB had provided A52 signal timing data because of lack of response from Tetra Tech/NH. No issues raised with the information provided to AECOM acknowledging that AECOM will carry out checks when running and optimise where required. Agreement made that other three minor improvements raised by NH not needed for PRTM. b. The furnessing approach remains agreed but needs revisiting post revised PRTM modelling be carried out. GN asked that BWB adopt a critical approach to identify any anomalies in spreadsheets and keep NH/LCC in the loop as things progress. c. MC said that whilst the agreed furnessing approach will be undertaken for all junctions, for the VISSIM network in particular development trips will also be manually assigned to network as a separate scenario to avoid background traffic reassigning, as previously the modelled flows showed very little different between the with and without development scenarios because of high congestion levels. BWB to set out distribution pattern with TWG post receipt of said information from AECOM as part of the current modelling work beforehand for agreement.	**BWB**
4	**AECOM related information** a. Plot 16 needs including in the modelling for completeness, otherwise there is a risk that this could be raised as an issue from a DCO perspective on a technicality. BWB to provide AECOM with revised traffic flows for 30,000sqm GFA at EMGP1 for Plot 16 and 400,000sqm at EMGP2 (floorspace was confirmed following a meeting with Segro on Friday last week). b. Further information required on the EMG1 rail freight terminal and potential number of HGVs travelling between EMG2/EMG1 and subsequent impacts on modelling. BWB to review and provide further information on numbers/strategy (email sent to Harry 06/09/24). c. LCC noted that EMG1 proposals used 4-5pm shoulder peak trip rates as a worst-case sensitivity test, whereas EMG2 is proposing to use traditional 5-6pm trip rates so that it aligns with the PRTM model time	**BWB** **BWB** **BWB**

	period confirmed by AECOM. BWB of the view that 5-6pm trip rates are suitable because EMG1 surveys shows no shoulder peak and because original trip rates are higher than current TRICS rates. BWB to confirm proposed trip rates within a revised PRTM proforma and subsequent trip generation note for completeness	
5	**Wider strategic modelling** a. PW provided an update with what work is currently being undertaken. The plan at the moment is to produce a PRTM proforma but also discussions are being held about using EMGM model via Systra. b. LCC asked whether Q1 2025 DCO submission is fixed or if there is flexibility around consideration of a delivery strategy for the cumulative works. If timescales are fixed then we lose the ability to introduce works via DCO approval and instead they will need to be secured via S106. BWB to liaise with Segro on timescales/approach.	**BWB**
6	**AOB** a. BWB to schedule monthly meetings (1.5 hours) moving forward and consider inviting AECOM to these.	**BWB**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 3 OCTOBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Alain Chandler-Hurst (ACH), Fiona Ahmed (FA) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Laura Good (LG) – LCountyC Network Data Intelligence
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) – National Highways (NH)
Harry Horsley (HH) & Richard Best (RB) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
George Nock (GN) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Ian Rigby (IR) - Segro
Vibeeshan Devaharan (VD) & Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of September's meeting notes** a. PW went through September's meeting notes and actions: i. LCountyC to review base Junctions 10 models at the appropriate time once a revised Area of Influence has been confirmed post PRTM modelling. ii. BWB issued revised sign off sheets on 16/09/24 and to start sending these through for details that have already been agreed. iii. It is noted that EMG1 surveys undertaken in 2023 were during the October half term. Whilst it was half term in LCountyC, it was not for other counties in the East Midlands, hence this shouldn't affect the operation of EMG1 significantly but in any case 2022 data is also available from a neutral date. iv. The PRTM proforma v13 was issued on 04/10/24 and includes for the following (NH has since confirmed agreement subject to minor amendment): - plot 16 at EMG1 - 4-5pm shoulder peak trip rates - confirmation that covid factors are included in Stage 2 modelling. v. SH provided further justification regarding the Rail Freight Terminal proposals and no increase in traffic, which has been accepted.	**LCountyC** **BWB**

	BWB to formally set this out in a note. vi. BWB will be reviewing the programme again once the PRTM modelling is back up and running. vii. BWB to produce a trip generation note formally setting the details out once the modelling is back up and running.	 **BWB** **BWB**
2	**EMG1 Rail Freight Terminal** a. SH provided an overview of the EMG1 terminal operations confirming why the proposed changes would not affect traffic generation. BWB to set out in a note.	 **BWB**
3	**Shoulder peak trip rates** a. PW confirmed that PRTM proforma 13 now adopts the 4-5pm peak trip rates, which has been agreed with NH, LCountyC and NCountyC.	
4	**Modelling scenarios** a. PW summarised the strategy for the PRTM modelling: i. The strategic modelling incorporating all Freeport and Isley Woodhouse sites is to use the EMG WISSER model (managed by Systra) subject to validation being confirmed around M1J24. ii. Each individual development will have their choice of modelling package, so EMG2 is maintaining using PRTM. iii. The Transport Assessments for each development will refer to a Memorandum of Understanding, alongside NH/LCountyC, to build their part of the wider mitigation package. Each individual part of the mitigation package should be suitable in mitigating the impacts of each individual development and to be evidenced by modelling. b. PW summarised the modelling scenarios that are to be tested, taking into account the above: i. 2022 forecast base year ii. 2028 2038 forecast years including all Freeport and Isley Woodhouse (including/excluding EMG2) to be retained as previously agreed. iii. 2028/2038 forecast years excluding the draft local Plan sites ie. Isley Woodhouse, Land west of Castle Donington and Coaker employment development (including/excluding EMG2) to be tested as a new scenario. The purpose of this is to ensure the package of mitigation attached to EMG2 is suitable. If Isley	

	Woodhouse is included then the modelling would show capacity issues in relation to the site access and Finger Farm junction without their associated mitigation scheme, even if the EMG2 part of the wider mitigation scheme proposed provides nil detriment overall within the study area, hence the need for an interim scenario. BWB to set this out in a separate PRTM proforma and to agree the uncertainty log details with LCountyC, NH, NCountyC. NH/LCountyC/NCountyC confirmed that this approach sounds reasonable but would need to see further information including proforma's etc. c. MC ran through PRTM proforma v13. No concerns but it was collectively agreed that any new scenarios would need dealing with separately for ease. d. AECOM confirmed they now have everything to re-start the modelling.	
5	**Covid sensitivity test** a. PW confirmed that following discussions with AECOM about the strategy for the covid sensitivity testing, it has been agreed to carry this out in Stage 2. b. AECOM/BWB to agree the covid factors alongside NH/LCountyC/NCountyC prior to Stage 2 modelling starting, building on the traffic data provided by NH and AECOM.	**BWB/AECOM**
6	**Wider mitigation strategy** a. PW provided a headline overview of the mitigation strategy. Lots of work going on 'behind the scenes' which includes five developments around East Midlands Airport (EMG2, Isley Woodhouse, Uniper, Land west of Castle Donington, Coaker Land). b. The wider strategic assessment is being modelled using the EMG WISSER model and meetings have been held including representatives from NH, LCountyC and NCountyC (Kevin Sharman). c. BWB will share further information once available but will keep the TWG updated on any progress with the wider assessment that BWB will liaise with AECOM to understand their timescales further before considering wider timescale implications	**BWB**
7	**Vision & Validate** a. PW confirmed the core modelling applies 100% of the trip rates to the mezzanine floorspace. b. PW said there are recent examples where deductions have been applied to mezzanines (Amazon at Bardon, Northampton Gateway etc.) so as part of the Vision and Validate assessment, further	**BWB**

	thought is required backed up by evidence to re-consider trip rates for the mezzanines. BWB to consider and share information once available but require a response to the email sent to George on 4/9/24.	
8	**AECOM related matters** a. AECOM require the final proforma before starting the modelling for the scenarios that have been agreed. This was sent by BWB on 04/10/24. b. AECOM asked about the air and noise quality requirements. BWB and AECOM to agree these separately which should not affect anything from a transport perspective.	**BWB/AECOM**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
WEDNESDAY 6 NOVEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) & Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Alain Chandler-Hurst (ACH) & Fiona Ahmed (FA) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Paul Wilson (PW) & Matt Corner (MC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) – National Highways (NH)
Richard Best (RB) – Leicestershire County Council (LCountyC)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
George Nock (GN), Jeremy Bloom (JB) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Laura Good (LG) – LCountyC Network Data Intelligence
Ian Rigby (IR) - Segro
Vibeeshan Devaharan (VD) & Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of October's meeting notes** a. MC went through October's meeting notes and actions i. BWB issued EMG1 RFT, trip generation and Stage 1A modelling sign off sheet. NH/LCountyC/NCountyC to review and comment/approve. ii. AECOM are now back up and running with the Stage 1 modelling. iii. BWB produced a separate PRTM proforma covering additional scenarios that exclude the Local Plan sites, needed for both transport and air/noise quality.	**NH/LCountyC/ NCountyC**
2	**Stage 1A modelling update** a. Rail Freight Terminal note issued 15/10, NH agreed 23/10/24 i. BWB confirmed that the note builds on the discussions held at the last TWG meeting, so there should be no surprises. NH have agreed with the details, LCountyC and NCountyC to review and confirm agreement.	**LCountyC/ NCountyC**

	b. Trip Generation Core Assessment note issued 18/10/24 i. The trip generation note covers the details agreed verbally to date including trip rates, shoulder peak periods, mezzanines. NH, LCountyC, NCountyC to review and confirm agreement. c. Stage 1A modelling sign off sheet issued 10/10/24 i. BWB issued a sign off sheet covering the Stage 1A modelling work, which includes the base PRTM/VISSIM model validation, furnessing methodology and proforma v14/uncertainty log v7 details. ii. HH confirmed that all reports have been agreed by LCountyC to date except for the furnessing methodology and questioned whether this can be signed off prior to receiving data. iii. MC confirmed that the report sets out the principles and methodology/approach for the furnessing process, hence can be agreed now, noting NH signed this off on 11/04/24. LCountyC and NCountyC to review and confirm agreement. iv. FA suggested that CT would be best placed to sign off information from a NH perspective but will confirm and arrange for Stage 1A sheet to be signed. v. All Stage 1A modelling information is contained within the 'Approved Information' folder, once the sign off sheet has been completed and returned by NH, LCountyC and NCountyC, this will then sit on the SharePoint page. d. Update from AECOM on Stage 1 modelling i. AECOM up and running with 2022/23/24 base model scenarios and will aim to start the 2028/38 forecast scenarios w/c 11/11/24. ii. JM confirmed he would schedule a meeting with BWB at the appropriate time (ideally the w/c 18/11/24) to discuss output priorities and to go through initial findings of the modelling.	**NH/LCountyC/ NCountyC** **LCountyC/ NCountyC** **NH** **JM**
3	**PRTM proforma v14a and uncertainty log v7a, issued 28/10** a. PW confirmed that PRTM proforma 14a includes additional scenarios that retain the 2028/38 assessment years but exclude six Local Plan sites. The purpose of this is to test part of the mitigation attached to EMG2 (known as the 'green package') and is also required for air/noise quality purposes regardless. The reason being that if we include all Local Plan sites then the modelling would continue to show capacity problems, but this should be covered by the wider mitigation strategy that hopefully shows betterment overall on the network with all the Freeport and Local Plan sites in place. Hence,	

	majority of details in the proforma remain unchanged. b. Overall, the view was that these scenarios make sense and are in effect 'middle scenarios' to tell the full story, noting that the end game scenario, the approach of which continues to be discussed at a higher level is key to all of this. HH confirmed he would expect this to be undertaken in PRTM although concerned that the green package forms part of a wider scheme that the TWG are not currently aware of, and it needs to be demonstrated that the wider mitigation is satisfactory. c. ACH raised concern about relying on these scenarios to demonstrate that access works within capacity. PW confirmed that the capacity problems are forecast to be more at Finger Farm in the future, but with the mitigation being delivered by Isley Woodhouse that is focussed on Finger Farm and the A453 across the site frontage this should resolve any issues. However, it is understood that it needs to be demonstrated that access works within capacity without relying on external mitigation, hence for BWB to consider at the appropriate time. d. HH asked whether Isley Woodhouse should be retained in the additional modelling scenarios given the full build out would not be included by 2038. MC confirmed that there would be a large volume of Local Plan development included in the uncertainty log up to 2038, adding weight to the additional scenarios being required from a transport as well as noise and air quality perspective. e. PW confirmed with JM that a reduced list of outputs would be needed for these scenarios from a reporting perspective, which should assist with regards to timescales.	
4	**Vision & Validate related update** a. PW confirmed the strategy for the Vision and Validate assessment may now change as BWB are on more of a fixed path in terms of mitigation, which is being coordinated alongside the wider consortium. The purpose of the V&V assessment may now be to understand how much mezzanine floorspace can be built without compromising the agreed traffic generation threshold. b. The trip rates would continue to adopt those recorded at EMG1 given the similarities in the sites and the Travel Plan strategy but further evidence on any reductions in trip rates for mezzanines is still needed. c. HH queried whether in planning terms additional mezzanine floorspace can be built that has ultimately been applied for and consented. The EIA confirms that the modelling needs to include the full quantum of development currently understood to be 430,000sqm B2/B8 use. d. HH confirmed that once the wider mitigation has been identified,	

	there will need to be a trigger point for delivering the works which will need to be agreed and not rely on public sector funding. e. PW said that post the meeting (and to be elaborated upon at the TWG) the plan would be to increase the amount of mezzanine GFA included for within the parameters plan and hence DCO, assuming that the TWG are indeed comfortable that, based on the evidence provided for EMG1, which includes for mezzanines, and sites elsewhere, trip rates for mezzanine GFA are less than that generated by ground floor GFA. In doing, this would not prejudice the traffic flows currently being assessed in PRTM, seeing as 100% of trips have been attributed to the total 430,000sqm GFA, including mezzanines.	
5	**AOB** a. MC referred back to previous discussions on Covid sensitivity given the PRTM has a base model year that pre-dates covid. Jacobs information showed that traffic has increased on parts of the SRN (but reduced on the local road network), more notably in the PM peak with worst-case increase of approximately 8%. Hence, the strategy could be to growth the background traffic by 8% to test within the mitigation given this is focused on the SRN. The data shows that the local junctions would have a reduction in traffic hence core modelling should be fine. b. JM raised concern that increasing all traffic by the highest factor could be highly robust and not representative. HH said that by the time we reach examination, PRTM will have a version with a 2023 base year. One option could be to compare 2019-2023 PRTM flows vs 2019-2023 surveyed flows to work out whether there is a similar level of growth. BWB to review the latest Webtris data to understand whether flows have since changed. c. AECOM confirmed that they would also review the situation to help inform decision making, because the reality is that the 8% figure referenced above would be too high, because it would also take into consideration wider growth and hence nothing to do with Covid.	**BWB** **AECOM**
6	**Timescales** a. PW said that BWB will liaise with AECOM to understand their timescales further before considering wider timescale implications	**BWB**
7	**Next steps** a. PW summarised the key next steps: i. Focus on reaching an agreement on the Stage 1A modelling work and obtaining sign off from NH, LCountyC and NCountyC. ii. Receiving confirmation on the EMG1 RFT and trip generation documents.	**NH/LCountyC/ NCountyC** **NH/LCountyC/ NCountyC**

	iii. Continue the modelling work, including that set out in PRTM proforma v14a (noting that the end game scenario also needs to be modelling; albeit how exactly is TBC).	**BWB/AECOM**
	iv. Continue to explore mezzanine trip rates and hence the current suggested 'vision and validate' approach.	**BWB**
	v. Determine a suitable approach to deal with Covid sensitivity as part of the Stage 2 modelling.	**BWB/AECOM**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 5 DECEMBER 2024 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
George Nock (GN) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
Catherine Townend (CT) – National Highways (NH)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Alain Chandler-Hurst (ACH) & Fiona Ahmed (FA), Jeremy Bloom (JB) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of November's meeting notes** a. PW went through November's meeting notes and actions. In summary: i. Modelling meeting notes have been formalised into minutes, which were shared on 04/12/24. ii. BWB and AECOM had a meeting to discuss PRTM output priorities and timescales for the modelling. iii. Further work has been undertaken on the Covid sensitivity factors, which is an agenda item in the meeting. b. PW asked if everyone could review the formal minutes from September, October and November 2024 (and December 2024) and confirm that the details are agreed.	**NH/LCountyC/ NCountyC**
2	**Wider strategic modelling** a. PW confirmed that his email of 02/12/24 sets out the quantum of all developments and potential route for the tram and asked whether this covers everything needed for the PRTM proforma. b. GN asked whether the tram will be considered in the PRTM modelling as part of a 'with mitigation' scenario. JM said that PRTM is quite limited with what it can do with such information but can consider the details. However, it appears that it will not be possible to include for its potential expansion within the modelling work, which AECOM will confirm post further updates internally.	**AECOM**

	c. PW asked whether the planning data assumptions need updating versus what was received as part of the previous data collection. TBo has provided an update which should cover NCountyC and NCityC, which has been shared. DS will be catching up with TBo tomorrow to check whether all is indeed in order NCountyC wise.	**DS/TBo**
	d. AD confirmed that the planning assumptions in the uncertainty log reflect updates received c. 12 months ago as part of a separate commission by NWLDC. Whilst planning data constantly changes, it may be that there have been no significant changes since that time as it was not that long ago.	
	e. GN said it is standard practice for consultants to engage with LPAs to obtain latest planning data prior to modelling taking place.	
	f. PW asked whether this was something that AECOM or LCCNDI can assist with as it will be difficult for BWB to get hold of such information.	
	g. PB said that LPA's typically update their information annually each April but the Melton information is available, and Charnwood forthcoming, and so will contact the other LCityC/LCountyC authorities for updates. However, BWB will need to enquire with SDDC, Erewash and DCityC for updates since April 2023.	**PB**
	h. PW confirmed BWB would engage with Erewash and DCityC but asked if any previous dialogue/information could be shared to assist this.	**BWB**
	i. PB suggested that Kit Tang previously sent an email which may contain contact details of relevant people at the authorities, which could be shared. This included SDDC, hence AECOM will look into this and re-engage.	**AECOM**
	j. PW confirmed that the above is a key critical path item for all related projects hence requires full focus with a view to obtaining agreements at the December TWG meeting next week.	**ALL**
	k. During the meeting PB confirmed he had emailed the LCityC/LCountyC authorities, and PW had contacted Erewash and DCityC.	
3	**Stage 1A modelling update** a. MC confirmed that NH signed off the Stage 1A modelling work on 04/12/24. The sign off sheet has been sent to LCountyC and NCountyC for their signatures.	
	b. AW said he would review and refer back next week, albeit PW stressed that the item above is more important in terms of priorities.	**LCountyC**

4	**Current Stage 1 EMG2 modelling work update** a. JM confirmed that AECOM are slightly behind schedule with the Stage 1 modelling because of issues with converting to EMFM but will be aiming to provide initial data outputs early w/c 09/12/24. Proforma 14 has taken priority over 14a, but 14a is being proceeded with in tandem. b. PW confirmed that BWB are currently updating the programme with the current version having initial outputs to be issued 06/12/24, hence this should not materially increase the overall timescales but asked AECOM to start sending through information as soon as possible once ready.	**AECOM**
5	**Stage 2 modelling** a. MC shared further information regarding the Covid sensitivity assessment comparing traffic flows on the M1, A42 and A453 between 2019 and 2023 (peak hour and daily flows). In summary, whilst there have been slight differences across each counter point, there has been an overall net reduction in traffic, hence this differs to previous thoughts, which may mean the covid sensitivity test is not needed. b. JM said that AECOM are currently analysing numbers for counters on the A453 Ashby Road near the site using LCountyC database and will share these once available. However, initial results are also showing a similar reduction in traffic. c. MC confirmed that BWB will share the information with the TWG upon receipt and review.	**AECOM** **BWB**
6	**Vision and validate** a. PW reiterated that a 'Vision and Validate' assessment does not need to be tested in PRTM given we are now on a fixed path in terms of mitigation. b. PW referred to CT email of 18/11/24 and that discussions have since been held with ITP who hold the EMG1 information. BWB will therefore respond soon with further thoughts.	**BWB**
7	**Updated VISSIM base model** a. VD said that since undertaking initial VISSIM modelling work for the wider strategic assessment, minor updates have been spotted to better calibrate the model. These are being fed into the base VISSIM model for consistency, although they are minor and do not fundamentally change the modelling. b. GN welcomed the update and said that NH will review the	

	information once available. c. VD said he would aim to issue the details next week. GN asked if LT could be copied into the email. d. MC said that whilst the VISSIM LMVR Revision P2 has been signed by NH (and remains valid), Revision P3 can be included in the Stage 1B modelling sign off sheet.	**BWB**
8	**Timescales** a. PW set out the timescales; public consultation now scheduled for 3rd February 2025 and the plan is to consult on the 'green package' of mitigation, understanding the risks associated with this. Submission of the DCO is planned for Q2 2025. b. PW confirmed that BWB have recently updated the programme but will need to make some final changes before a copy is shared with the TWG, subject to Client agreement.	**BWB**
9	**AoB** a. MC said that BWB are planning on purchasing PIC data across the key junctions and analysing this over the coming months. The details can be shared in a standalone Technical Note for the TWG to review and sign off ahead of the Transport Assessment being produced. No queries were raised with this approach.	

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 2 JANUARY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Fiona Ahmed (FA) – c/o Jacobs; NH transport consultants
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT) – National Highways (NH)
Tom Boylan (TBo) & Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
George Nock (GN), Alain Chandler-Hurst (ACH), Jeremy Bloom (JB) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultant

MINUTES:

Agenda item		Action
1	**Review of December's modelling meeting notes**	
	a. PW went through December's meeting notes and actions. In summary:	
	i. PB confirmed all LCountyC planning data is in hand, with updates from certain authorities due this month. He, with the help of Anthea Anderson, will be liaising with LCityC to obtain the latest data.	**PB**
	ii. An update has been received from Erewash, which PW forward to LCountyC's NDI team and AECOM on 11/12/24 (all remains in order). PW has spoken to Andy Gibbard of DCityC who advised BWB contact Duncan Irons of Systra regarding planning data updates. As DCityC is in the buffer zone within PRTM there were questions as to how much can be included in PRTM anyway.	**PW**
	iii. Jon Morrow has liaised with SDDC regarding planning data updates and we understand no further input is needed (TBC at the TWG meeting).	
	iv. PW is assisting with obtaining an update from NCityC and sent an email to Matt Gregory on 12/12/24, to which he will follow up.	**PW**
	v. AECOM has confirmed that the tram can be modelled in PRTM so the approach at present is to model a with and without tram scenario.	**AECOM**
	vi. Initial PRTM outputs are expected to be received from AECOM from 06/01/25.	**AECOM**
	vii. BWB issued a revised programme on 10/12/24, albeit this is now slightly outdated given the delays in receiving PRTM modelling outputs and lack of agreement to the wider strategic assessment PRTM proforma	
	viii. The Stage 1A sign off sheet was discussed and LCountyC are still to consider this internally before this can be signed.	
	ix. BWB are still waiting for agreement to the previous modelling	**All**

	meeting minutes before these are uploaded to SharePoint. x. BWB issued information regarding the Covid sensitivity assessment. GN has since responded confirming the details are agreed subject to being formally written into a Technical Note. xi. The VISSIM base model is with VD to review before being shared with the TWG. xii. BWB has responded to CT email regarding the 'vision and validate' assessment.	**BWB** **VD**
2	**Review of December's TWG meeting notes** a. PW went through December's meeting notes and actions, specifically in relation to modelling: i. AECOM to provide information on programme implications if we switch to the 2023 model, along with LMVR and journey time comparison details to inform wider decision making. ii. AECOM are due to issue Stage 1 modelling outputs during week commencing 06/01/25. iii. BWB responded to CT email regarding the 'vision and validate' assessment. iv. NH are happy with the PRTM proforma for the wider strategic assessment subject to confirmation on the model version being used and a minor discrepancy with Plot 16 traffic details; PW suggested the ancillary information provided to NH dated 2/12/24 could be appended to the revised PRTM Proforma for completeness, once comments are received from LCountyC in particular.	**AECOM** **AECOM** **BWB/LCountyC**
3	**2019 vs 2023 PRTM model** a. PW said that he produced a note for Segro in December setting out expected timescale implications if we switch to the 2023 PRTM model and asked whether LCountyC has had sight of this. In summary, switching to the 2023 model is likely to delay timescales to at least mid-May from what BWB understand. b. HH has not seen the note but said the December TWG meeting was useful to understand wider implications, but the preference is for the most appropriate model to be used for the project. This will be informed by the information AECOM are providing, in tandem with LCountyC's NDI team, who oversee the model, and hence will await that. c. PW said that further conversations on the PRTM models can be had at next week's TWG meeting. In the meantime, BWB will be continuing with the 2019 model outputs expected to be received next week. d. PW said that GN has responded to BWB's email regarding Covid sensitivity assessment confirming that the details are agreed from a NH perspective and will be formally signed off once a Technical Note	**BWB**

	has been produced. BWB will share the GN email and a copy of the note once available. e. HH asked for clarification on what is being tested in the 'vision and validate' scenario. PW confirmed that it focuses on mezzanines and how much additional mezzanine floorspace is considered acceptable without compromising the agreed traffic generation. f. HH said that LCountyC would have concerns with uplifting GFA's as this is not standard practice. FA agreed and asked whether a scenario could be tested that considers the full development, including any additional mezzanine, at 100% of the trip rates. g. PW said that lots of discussions have been had in the past regarding trip rates. The EMG1 surveyed rates show that actual trip rates are much lower than what is being assessed. The Client would like flexibility for additional mezzanine floorspace, and information has been shared evidencing how this should not cause any issues with the volume of traffic being assessed. h. PW said that in response to FA question, BWB could produce a comparison of traffic generation with the full quantum of development, including additional mezzanine, using both the agreed, and surveyed EMG1, trip rates to provide a further understanding of the difference. i. FA sought clarification as to what was agreed with NH on previous projects as set out in PW email to CT on 17/12/24. PW said he would review and confirm but reminded that a 50% reduction in trip rates was also agreed with LCountyC for the Amazon at Bardon.	**BWB** **BWB**
4	**Mechanism for delivering wider mitigation** a. HH asked what had been considered amongst the consortium on the mechanism for delivering the wider mitigation, stating that the timescales will be challenging to agree this ahead of Examination. b. PW said that work has been on-going behind the scenes using the previous 2035 PRTM outputs. VISSIM modelling has been undertaken that manually adds development traffic from all sites to understand the impacts and a scheme of mitigation has been designed at and in the vicinity of M1 J24. Whilst this will need further assessment using the latest PRTM outputs it is based on robust assumptions so hopefully means we are further along than would normally be at this stage. c. HH said that the mitigation will need to go through NH processes for approval, which is often an iterative process, reiterating that to complete this by May 2025 will be challenging. d. PW said the latest programme currently includes this work which aligns with the May 2025 timescales. However, this was based on a number of assumptions, including when BWB would receive PRTM	

	outputs, which have already slipped by approximately one month. e. FA said that NH has issued a letter about the wider mitigation, which sets out that there are concerns over gaps in funding and the risk of certain schemes coming forward and others not (FA subsequently forwarded the letter, which has been passed onto the Client for the avoidance of doubt). f. HH said that LCountyC do not forward fund such mitigation schemes anymore and if third party money is needed then this needs considering, perhaps alongside modelling of different options. g. PW thanked HH and FA and said that this will be considered further in discussion with Segro.	**BWB/Segro**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 6 FEBRUARY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
George Nock (GN) & Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley – Leicestershire County Council (LCountyC)
Catherine Townend (CT)/Kate Stephen – National Highways (NH)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Fiona Ahmed (FA), Jeremy Bloom (JB) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Paul Wilson (PW) & Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of January's modelling meeting minutes** a. MC went through January's meeting minutes and actions. In summary: i. All planning data assumptions have now been received for all relevant authorities. ii. Initial PRTM outputs and the Forecasting Report for the Stage 1 modelling scenarios have been received from AECOM. iii. No comments have been received on the modelling meeting minutes from October, November and December 2024 hence these are now agreed and will be uploaded to SharePoint. iv. BWB issued a note on the Covid sensitivity assessment, which GN has confirmed is acceptable on behalf of NH. v. The revised VISSIM base model is being discussed with NH, which VD will discuss in the meeting further. vi. Further details regarding LMVR and journey times for the 2023 PRTM model are to be discussed in the meeting. vii. The proforma for the wider strategic modelling work has been produced and it needs confirmation from all parties whether it is acceptable. viii. Traffic generation for the 'vision' element and reductions for mezzanines are to be discussed in the meeting. b. MC asked if anyone had any comments on the January 2025 minutes. AW said he hasn't reviewed them so will come back with any comments but no other comments received.	**AW**

2	**Stage 1 Modelling Work** a. MC confirmed that BWB have received modelling outputs from and the Forecasting Reports from AECOM and have spent time reviewing the outputs to check that the data is correct in the first instance. So far there have been no issues identified, but BWB will advise if there are any queries, with the aim to complete this by 07/02/25. b. JM provided an overview of the modelling results and from an AECOM perspective said the modelling outputs are largely similar to before. There is some re-distribution of traffic around the site access on the A453 but overall the distribution of light vehicles and HGVs seems sensible. There is a lot of congestion at M1J24 and Finger Farm on some approaches which we can discuss in further detail but overall the outputs do not significantly change from the previous modelling work. c. JM confirmed that the modelling outputs for proforma v14a will follow next week. d. MC thanked JM and said that BWB will be reviewing the Stage 1 modelling outputs and advise AECOM of anything next week. The plan is to run through the Forecasting Report with the TWG at next Thursdays meeting. e. JM said AECOM will provide a presentation for the TWG meeting next Thursday. f. GN asked whether the Forecasting Report could be circulated to the TWG ahead of next week's meeting. MC said that once BWB have reviewed the outputs and are happy with them, then the Forecasting Report can be shared. BWB will aim to circulate this early w/c 10/02/25 assuming we are content with the outputs. g. GN asked for clarification that the outputs issued by AECOM so far relate to PRTM proforma v14. MC confirmed this is correct and that outputs for proforma v14a will follow once available from AECOM.	**BWB** **AECOM** **AECOM** **BWB**
3	**Stage 2 Modelling Work** a. MC said that BWB have produced a Covid sensitivity note which was circulated to the TWG in January 2025. GN has confirmed that NH are happy with the contents. MC asked if comments can be received from LCountyC and NCountyC. b. AW said that he has reviewed the note but needs to talk through some of the details with colleagues before responding. c. DS said he would talk to TBo about the note and come back with comments. d. MC confirmed that timescales wise, the Client is looking at an end of	**AW** **DS**

	May 2025 DCO submission, which remains unchanged. e. MC said that BWB issued a note on construction traffic calculations in January 2025 and that comments have been received from AW and FA. f. MC said that in response to AW comments, the aim of the report is to set out the construction traffic numbers only. The comments on how the works will be built and impacts of the lane closures etc., will be determined later on. g. AW understood and said it was worth raising comments about lane closures etc., because it was discussed at the last consortium meeting. However, LCountyC will review the numbers and advise of any comments. h. MC asked DS whether NCountyC will be reviewing the note or if they will defer to others. DS said that NCountyC will defer to others as it will have the least impact on their network but said he will check with TBo to see whether he has has or will be providing comments. i. GN asked for clarification between the Stage 2 and wider strategic modelling. MC confirmed that Stage 2 relates to the EMG2 mitigation scenario (i.e. testing the Green Package), whilst the wider strategic modeling incorporates all the sites within the consortium.	**LCountyC** **DS**
4	**Wider Strategic Modelling** <u>2023 PRTM Model</u> a. MC confirmed the wider strategic modeling will be undertaken using PRTM 2023. Our understanding is that prior to this, there will be a need to review the LMVR and so whether there has been any progression on receiving this. b. JM said that AECOM has been speaking internally with colleagues who are developing the model. The LMVR for the whole model should be ready by the end of the week (07/02/25) and will then be passed to LCC NDI for approval. Following that, there may be a need to carry out a Base Year Model Review specific to this application. c. JM said that once LCC NDI are happy, the LMVR is then circulated to LCC HDM and National Highways for approval, following which the Base Year Model Review specific to this (or indeed any other) project can be started. MC suggested that it is therefore apparent that there are a number of steps that therefore need to be undertaken before the 2023 PRTM is ready to use on this project, starting with AECOM producing a LMVR, LCC NDI and HDM reviewing and agreeing, before NH carry out their own review and agreeing. d. MC asked GN about timescales for reviewing the wider LMVR. GN said it is a big exercise, however, Jacobs are familiar with AECOM's work and the high standards LCountyC expect from their models.	

	However, once the model is received and an initial review has been carried out, then Jacobs will be able to refine their estimations for timescales. e. MC thanked GN and confirmed that BWB are progressing with the 2019 PRTM for EMG2 but that a sensitivity test will be carried out in 2023 PRTM to ensure the Green Package of mitigation addresses the impacts of the development and that the conclusions between the 2019 and 2023 PRTM models align (this assumes timescales permit pre Examination). f. JM said that the full LMVR for the entire 2023 PRTM model is nearly ready and asked GN whether NH would want to see the full LMVR or the project specific Base Year Model Review. GN confirmed Jacobs would like to review the full LMVR with a full simulation area. g. MC asked if the LMVR can be shared with BWB. PB said that until LCountyC sign it off it cannot be shared. Comments are requested from shareholders or people invested in the model, such as NH, but it won't be shared with stakeholders until fully signed off. h. VD asked for timescales for approving the LMVR from a LCountyC NDI perspective. PB said that he hasn't started reviewing it yet so cannot fix timescales but LCC NDI are keen to approve the model. From initial reviews, the model performance look good and so there are not expected to be any major problems. i. GN said that NH remit is to focus on the model itself and the performance of that model, whereas the report is less important and will simply summarise the performance and key details. <u>Planning Data Assumptions</u> j. MC said that all planning data assumptions have now been received and data for DCityC has now been shared with AECOM. MC asked JM whether anything is outstanding. k. JM shared a log on screen and confirmed that AECOM now has the best information available from each authority. AECOM need to review the information to understand what format it has been provided and if anything else is required. l. MC said that the information that has been received is the best available at present. There may be a further discussion on how development build outs are forecasted within the model but suggested AECOM undertake an initial review and let us know if anything else is needed. m. MC confirmed that comments from GN have been received on the proforma. The key things relate to the junction assessment requirements and need for merge/diverge assessments etc. How the modelling work is being shared between all consultants across the consortium is still to be determined but it will be undertaken one way	**AECOM** **AECOM**

	or another. n. GN said that the merge/diverge is a desktop approach but appreciated that the comments will be taken on board. <u>Quantum of Development</u> o. MC said that discussions have been held about increasing the quantum of development to 530,000sqm. BWB have received 2024 survey data of EMG1 from ITP and are reviewing the information after which it will be shared. BWB will also respond to FA's email regarding the approach to assessing a higher quantum of development. p. AW agree with FA comments and will review any further information that is issued. q. GN said there is nervousness about increasing the development to 530,000sqm given the work undertaken to date and the statutory consultation refers to 430,000sqm. Whilst it is appreciated that things change, this is different to what assessment work has been undertaken so far. The position is that if the DCO applies for a higher floorspace then this needs modelling. There is nervousness about changes to floorspace versus what is set out in the statutory consultation. r. MC said that the Client team are considering whether the floorspace can be increased as additional mezzanine. The work undertaken so far to justify this in modelling terms is that the trip rates adopted for the Stage 1 modelling are highly robust, with 100% applied to mezzanines, plus the inclusion of the shoulder peak etc. From what we know of EMG1 is that traffic being generated is much less, circa half of what is being assessed for EMG2 so what we were trying to seek agreement on is that with the evidence of EMG1 would an additional 100,000sqm of floorspace cause any problems over and above the modelling work already being undertaken. s. GN appreciated BWB's position but that any increase to floorspace may supersede the work AECOM have already undertaken. t. MC suggested there could be scope to test 530,000sqm as a sensitivity test under the with mitigation scenario to ensure that the Green Package scheme can accommodate this extra development. This is something that can be considered and discussed further. u. VD said that additional sensitivity tests can be carried out in VISSIM because the plan is for us to add development traffic manually on top of the with development scenario, hence this could be easily tested. This may give further reassurance on the mitigation scheme. v. GN said there are options but that NH would want to see the full quantum of development tested through PRTM.	**BWB**

5	**Base VISSIM model** a. VD thanked GN for reviewing the revised base VISSIM model. There is one last assumption to include in the Technical Note about convergence issues in the morning peak hour, which will be carried over into the forecast year scenarios. BWB will share the note for sign off with NH. b. AW said that LCountyC are also reviewing the VISSIM model and will provide comments next week. c. MC said that LCountyC did not provide comments initially. AW agreed but said that LCountyC are reviewing that latest updates from VD. d. VD said that he will await all comments before updating and sharing a revised Technical Note. e. GN suggested that by having notes on any assumptions made makes it easier when reviewing and confirms where certain assumptions/comments have been considered. f. GN said that if VD would like to talk through things when generating forecast matrices then Jacobs are happy to schedule a meeting. VD thanked GN and said that BWB will share the furnessed traffic flows ahead of the modelling.	**BWB** **AW** **VD**
6	**Sign off position** a. MC recapped that a Stage 1 sign off sheet was circulated covering six core documents, which NH have agreed. NH also commented on a further three documents confirming those are also agreed. LCountyC confirmed they wanted to wait for the furnessing report to be updated before signing off those reports. b. MC said whether the additional three documents commented on by NH need formally setting out in a further sign off sheet for clarity. GN said it will be worthwhile setting them out separately, however as the work has been complete that sets out the core assumptions which have been agreed by NH, then so long as the core assumptions remain unchanged then NH position will remain unchanged. c. MC said that further sign off sheets will therefore be shared covering the additional three documents already referenced by NH and also any other documents that are being shared and agreed, for example to Covid sensitivity note.	**BWB**
7	**AOB** a. JM asked about sensitivity tests for the 2023 PRTM modelling and what this could include.	

	b. MC said that this will include further modelling the Green Package of mitigation attached to EMG2 within 2023 PRTM to compare against the result using the 2019 PRTM. This will need to wait until an agreement has been made on the 2023 PRTM LMVR mind.	
8	**Next steps** a. MC summarised the next steps: i. BWB to review the Stage 1 modelling outputs from AECOM (proforma v14) and provide comments, aiming to complete this by 07/02/25. ii. Once happy with the outputs, BWB will then circulate a copy of the Forecasting Report to the TWG. iii. BWB will then start the traffic furnessing process and share the forecast year traffic flows with TWG. iv. BWB are updating the programme which will be shared at the TWG meeting next week, which includes time for consultees to review submissions of information. b. MC thanked everyone for their time and ended the meeting.	**BWB** **BWB** **BWB** **BWB**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 6 MARCH 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC) – initial 30 minutes
Alain Chandler-Hurst (ACH) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley – Leicestershire County Council (LCountyC)
Catherine Townend (CT)/Kate Stephen – National Highways (NH)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
George Nock (GN), Fiona Ahmed (FA), Jeremy Bloom (JB) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of February's modelling meeting minutes** a. PW went through February's meeting minutes and actions. In summary: i. AECOM have been working through the modelling work and have issued outputs for the Stage 1a modelling, which BWB have been reviewing and commenting on. ii. BWB issued the Forecasting Report covering Stage 1a modelling outputs. iii. NH has approved the Covid-19 sensitivity note and LCountyC has confirmed their preference is for it to be tested in PRTM 2023 when considering said topic matter. BWB are awaiting a response from NCountyC. iv. Further details setting out the construction traffic calculations have been circulated, which forms an agenda item in the meeting. v. All planning data assumptions have been bottomed out and are with AECOM to review and advise of anything is required over and above (subject to agreeing fees). vi. BWB issued further details that consider the impacts of applying for a larger quantum of development (530,000sqm) in terms of impacts on traffic volumes. vii. A revised VISSIM base model has been issued and forms an agenda item on the meeting. viii. Further sign off sheets have been circulated and is also an agenda item on the meeting. b. PW asked if anyone has any comments on the February 2025 minutes and whether AW has read the January 2025 minutes. AW said he	**AW**

	hasn't reviewed the January or February minutes so will come back with any comments. No further comments received from anyone else.	
2	**PRTM forecasting report (Stage 1a modelling)** a. MC confirmed that BWB has received comments from GN. They in effect summarise the findings of the report and set out a list of requirements for BWB to consider and undertake in the Transport Assessment (under a green/amber/red traffic light system). There are a number of substantive issues (red) that BWB need to be mindful of. However, there were no issues with how the modelling was undertaken. b. PW asked if LCountyC or NCountyC have any comments on the Forecasting Report. No comments were made and both authorities still need to review the report.	**LCountyC/ NCountyC**
3	**Development traffic distribution and assessment methodology** a. MC summarised details sent in an email on 03/03/25. BWB had considered distributing development traffic using the outputs from PRTM. This showed that development traffic is routing naturally and is not affected by congestion and route diversion. BWB had however noticed that 7% of traffic is originating/travelling to East Midlands Airport, which seems strange. However, as the modelling approach involves manually assigning development trips on top of the without development flows (as a worst case), the 7% is proposed to be added evenly to the seven highest routes. b. JM apologised for not replying to MC's email but confirmed that AECOM has distributed the traffic in accordance with the in-built gravity model in PRTM, which is a standard approach. However, AECOM will check the distribution vs the cordon model to understand whether there are any differences. c. PW suggested that the approach adopted by BWB is sensible and will provide a robust assessment of the traffic impacts on the network but whether anyone has any comments at this stage. d. ACH asked how many trips the 7% equates to? PW/MC suggested that it equates to approximately 50/60 trips. e. ACH said that whilst the approach seems sensible, the number of trips is not insignificant and so will need to review the details and confirm. f. PW thanked ACH and said that BWB are comfortable with the approach and that this can be considered further within the Stage 2 modelling, where perhaps a manual adjustment can be made that removes the East Midlands Airport zone in PRTM. g. PW asked if LCountyC has any comments at this stage. AW said that he has not yet looked at the email from MC but will do so and write back.	**JM** **ACH** **AW**

4	**Traffic flow furnessing** a. VD confirmed that BWB are currently working through generating forecast year flows using the previously agreed furnessing methodology. However, in reviewing the 2022 outputs, there is a significant reduction in traffic along the Hilton Hotel Lane arm of M1J24, which is affecting the furnessing and asked for AECOMs thoughts on this. b. JM said that he would expect some difference in flows because the model has been re-run using the latest Tag Databook information but suspects it is due to traffic re-routing in this area. However, JM said he would review the flows and provide a narrative for BWB to consider.	**JM**
5	**Proforma v14a outputs** a. PW confirmed that BWB has received initial outputs from AECOM and are reviewing the information before information is shared with others in the project team. b. PW asked AECOM when they expect to provide a Forecasting Report covering this scenario. JM said that this should be available early next week.	**JM**
6	**Vision & validate** a. PW confirmed that BWB has received the 2024 survey information of EMG1 and have provided an update on the current position with trip rates within an email dated 05/03/25. The purpose of the information is to understand whether the amount of B8 mezzanine floorspace could be doubled from 100,000sqm to 200,000sqm without prejudice to the traffic flows assessed to date. b. PW summarised the contents of the email: i. The trip rates calculated from the 2024 surveys are approximately half of what is being adopted for EMG2. ii. This means that Segro could develop up to 650,000sqm of development, in theory, without compromising the agreed traffic generation, should traffic volumes at EMG2 be similar to EMG1. iii. The trip rates during the shoulder peak hours are slightly higher but remain significantly lower than the trip rates adopted for EMG2. c. PW provided details about how mezzanines operate. In summary, traffic flows generated by B8 developments are driven by the number of loading doors and HGV parking spaces, not mezzanine levels, which in effect provide more sophisticated, automated racking systems. They do not therefore significantly increase staff numbers or HGV movements.	

	d. PW shared a plan on-screen showing a standard racking system vs an alternative racking system with mezzanines. The difference is that in traditional racking systems, goods are stacked vertically and with mezzanine floors, goods are stacked horizontally. e. PW asked if the authorities could review the email sent on 05/03/25 and that this item will be discussed further at the TWG meeting next week.	**NH/LCountyC /NCountyC**
7	**Study area** a. MC referred to an email sent on 03/03/25. A process has been carried out to propose a study area for the Transport Assessment, which followed the same process as before. This involves comparing V/C ratios and changes in traffic flows at key junctions across the AoI. This information has been populated into a spreadsheet which then highlights which junctions are included and which have been excluded, and reasons why. In summary, the study area remains as before, except for the two junctions on the A453 Remembrance Way which now fall outside the AoI and so have been removed. *b.* MC asked if anyone has any immediate comments. No comments received but the TWG to review and respond to the suggested study area. *NCountyC have since responded.*	**NH/LCountyC**
8	**Sign off review** a. MC summarised the current position with sign off sheets and that NH has formally signed eight documents within Stage 1a, 1b and 1c modelling but signatures have not yet been received from LCountyC or NCountyC, albeit noting that a number of individual documents have been agreed. b. MC said that there remain two sign off sheets outstanding from all parties, relating to the local junction modelling validation report (Stage 1d modelling) and the Sustainable Transport Strategy/Framework Travel Plan (Transport Reporting 1) and asked if the TWG can review and comment on these. c. DS said he would liaise with TBo and respond to the sign off sheets.	**NH/LCountyC /NCountyC**
9	**Revised VISSIM base model** a. VD confirmed that a revised VISSIM base model was circulated on 03/03/25, which took on board comments received from NH and LCountyC. Hence a response is awaited from both parties.	**NH/LCountyC**
10	**Construction traffic calculations** a. MC referred to comments received from FA and that BWB have	**BWB**

	liaised with Segro and the consultant who provided the calculation information. BWB will therefore respond to Fiona's email setting out further clarification of the various points made, however, the summary is that the calculations already adopted are robust and should provide comfort that the construction traffic forecasts for the network are suitable.	
11	**2023 PRTM update** a. PW asked if there has been any progress with 2023 PRTM since last months meetings. b. PB said that the LMVR was circulated to Jacobs on 14/02/25 (the day after the February TWG meeting) and that comments have been received which they are liaising with AECOM about. PB said that BWB could commission AECOM to carry out a site-specific base model validation report in order to start the EMG2 work. c. PW referred to previous conversations and said that BWB would like comfort that NH approve the 2023 PRTM model before it is commissioned by Segro, to avoid abortive work. d. PB agreed that having NH comfort on the entire model would be useful but not a requirement to commissioning work using the model on projects. e. ACH said that the wider LMVR is an important part of the model sign off process that NH will review and sign off. f. LG said that further fees will be needed to cover additional work. PW confirmed this is fine and for LCC NDI and AECOM to provide further fees for the additional work. This is to include the planning data work and base model validation report and BWB can then take a view as to what is to be commissioned. g. PW asked about timescales for AECOM to carry out the Stage 2 modelling work, noting that it will be several weeks until BWB will complete the VISSIM modelling and confirm whether the green package of mitigation remains suitable. JM suggested that 4 weeks should be suitable to carry out the stage 2 modeling. h. MC suggested whether the green package of mitigation could be coded into PRTM upfront, noting that any abortive work will need to be covered by Segro in terms of costs. JM said that this can be done subject to further fee agreement, which is with Segro to raise a PO for.	**LCC NDI** **AECOM** **BWB**
12	**Next steps** a. PW summarised the next steps: i. Stage 1a traffic flows to be furnessed in line with the previously agreed methodology, taking on board the proposed	

	distribution pattern. BWB to then circulate future forecast flows for agreement. ii. BWB to update the VISSIM modeling to confirm whether the green package of mitigation remains suitable to address the impacts of the development. Consideration is also required of any unacceptable impacts at Finger Farm and whether an interim mitigation package is required at that location. iii. BWB to then commission AECOM to carry out the Stage 2 modelling work, testing the green package of mitigation. iv. BWB to continue working through comments on the construction calculations and respond to FA remail.	
13	**AOB** a. PW asked if there was AOB. No further comments received.	

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 3 APRIL 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Adrian Whiteman (AW) & Harry Horsley (HH) – Leicestershire County Council (LCountyC) – initial 30 minutes
George Nock (GN), Alain Chandler-Hurst (ACH) & Lee Templeman (LT) – c/o Jacobs; NH transport consultants
Laura Good (LG) – LCountyC Network Data Intelligence
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT)/Kate Stephen – National Highways (NH)
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of March's modelling meeting minutes** a. PW went through March's meeting minutes and actions. In summary: i. AW confirmed LCountyC still needs to review and confirm the meeting minutes from January and February 2025 but will respond to those. ii. BWB issued the PRTM forecasting reports for both Stage 1a and 1b scenarios. iii. The distribution query was answered by JM. GN and ACH are comfortable with the position BWB has taken. iv. PW asked if AW has any comments on the traffic distribution approach. AW had no comments but will discuss this with HH and advise if LCountyC has anything to add. v. Furnessing spreadsheets have been shared and BWB can elaborate further in the meeting about the approach taken. vi. The mezzanine element forms an agenda item in the meeting. vii. Details of the initial study area were shared and BWB have heard back from GN. LCountyC has confirmed they will wait for the Stage 2 outputs before confirming a study area. viii. Sign off sheets will be covered in the meeting. ix. Comments on the base VISSIM model were received from NH and LCountyC. x. Construction traffic calculations will be covered in the meeting. b. PW asked if anyone has any comments on the March 2025 minutes. No comments were received but AW confirmed he would review January,	**AW** **AW** **AW**

	February and March minutes and confirm LCountyC's position.	
2	**Comments on PRTM Forecasting Report** a. PW said the PRTM forecasting report for proforma v14 was shared a while ago. GN has provided comments with a few items for BWB to consider. PW asked if there any further comments from NCountyC or LCountyC. b. DS said that there are no comments from NCountyC at this stage but will speak to TBo to confirm this. c. HH said there have been emails that suggest a change in approach and asked for a summary of what scenarios are now being assessed. d. PW referred back to the outset when the project changed from a planning application to DCO. NH and LCountyC asked for the core assessment to include all draft Local Plan allocations in the background growth assumptions. e. HH agreed with the above and said further discussions were then held about proforma v14a although it was confirmed these scenarios were for air quality and noise purposes only and not the Transport Assessment. An email received earlier in the week seems to contradict this. f. PW said that proforma v14 remains the core scenarios for the Transport Assessment. However, now that BWB has furnessed the numbers and tested them in VISSIM, there is a lot of traffic from Uniper causing significant impacts at M1 J24. The Client team raised a question asking why we are including Uniper (and indeed Isley Woodhouse) traffic when we're not including their mitigation. BWB has then reviewed the TAG guidance and the interpretation of what sites need including and the conclusion across the team was that we also need to consider and report back on the proforma v14a scenario that exclude these draft allocations, so that it aligns more with Circular 01/2022. g. HH said that LCountyC would not support the conclusions of the Transport Assessment with proforma v14a scenarios, as those are not DCO compliant and change the previously agreed position, which will ultimately confuse an Inspector. The proforma v14a scenarios have not been agreed with the TWG and so the direction is changing from what the TWG has signed up to do. h. PW thanked HH and that he will feed this back to the Client team. BWB will not be stepping away from proforma v14 and whilst AECOM have run proforma v14a it may be that BWB do not reference it in the Transport Assessment if that is the position from the TWG. i. GN referred to NH comments on the proforma v14 forecasting report and asked if BWB will be responding. PW confirmed that BWB has taken note of the actions and will consider the comments. However,	**DS** **PW** **BWB**

		BWB can formally respond if that will assist. GN said that would be useful, as NH typically agree the actions and log the process for completeness.	
	j.	GN said that in terms of proforma v14a this is a fundamental change in direction to the previously agreed position and whether PW agrees this this. PW said that the BWB will still be focusing on proforma v14 so there is no significant change in position.	
	k.	GN said there has been a change in position from 4 weeks ago and questioned whether this is following a discussion with the planning lawyers about the status of the draft allocations. PW confirmed the questions have come from the planning lawyers.	
	l.	GN asked to run through each of the draft allocation sites to understand BWB's thoughts on the status of these against the application of TAG. The draft allocation site's include: 1. Uniper 2. Isley Woodhouse 3. Land north and south of Park Lane, Castle Donington	
	m.	PW shared an email sent on 31/03/25 on screen with BWB's thoughts on the TAG criteria. PW said his position is that all three sites fall within the 'reasonably foreseeable' position. The issues with the planning lawyer are that we are including for all of Uniper's traffic but not the mitigation, which is a scenario that cannot happen in reality.	
	n.	GN suggested that we have included their mitigation in terms of the sustainable transport strategy. There is a prospect of them using the East Midlands Parkway railway station, which has implications on traffic demand, albeit appreciating there is a cap in terms of traffic movements at M1 Junction 24.	
	o.	GN asked how much floor space is included for Uniper at the 2028 opening year within the Uncertainty Log and whether this exceeds what has been capped in their planning permission.	
	p.	PW shared the Uncertainty Log v7 on screen which shows the majority of Uniper's traffic is included for by 2028, with all traffic included by 2038.	
	q.	GN said in terms of the criteria set in TAG, the critical thing is the local source element and judgement in managing uncertainty when forecasting. This is a difficult thing to do but NH are keen to understand the key local source, which in this instance is the Local Planning Authorities. GN pointed out that Uniper has planning via a LDO and Isley Woodhouse is an emerging application. GN asked for HH opinion on whether these sites should be excluded against the criteria of TAG.	
	r.	HH said that the planning data assumptions have been supplied by the Local Planning Authorities who are best placed to advise on	

	planned growth for the area and the profile for when the planned growth is expected to be delivered. s. GN said he gives HH position a lot of weight, which should be taken on board within the project teams decision making. t. PW said that this feedback has been really useful and that BWB will report this back to the wider project team and planning lawyers. u. HH said that when this is feedback to the planning lawyer, those other sites have a very similar panning status to EMG2, albeit this is a Freeport designation.	
3	**Traffic flow furnessing and testing of green package of mitigation** a. VD thanked NH and LCountyC for approval of the base models but BWB have a license agreement that means the TomTom data cannot be shared. AW accepted this. b. VD said in terms of furnessing, when BWB has compared the 2022 datasets between the original and new outputs, the latest flows are lower because of changes in flows at EMG1. There are also some reductions along the M1 and A42. The furnessing approach calculates the growth in PRTM from 2022 to 2028/38 and applies this to the 2022 surveyed flows, which remains the methodology. However, it was considered that the inclusion of mainline flows on the M1 may skew the furnessed flows at M1 J24 in particular, therefore BWB have furnessed the link flows on the M1 and A42 separately and put them back into the matrices to avoid under/over estimating traffic flows at the junction. Furthermore and for BWB's reassurance, we have compared furnessed link flows against those in PRTM. This shows that there are some differences in link flows, therefore an additional sensitivity test has been undertaken to furness the PRTM link flows to observed counts. c. ACH asked if there are now different spreadsheets to before. VD said the spreadsheets are in the same format and include the standard furnessing as well as a separate section for the mainline flows. Additional spreadsheets of the sensitivity testing furnessing have also been provided. d. ACH asked if BWB can share comparison spreadsheets showing the differences if this additional assessment wasn't carried out. VD confirmed BWB can provide those, although the current spreadsheets contain the furnessed flows using the previously agreed methodology and the mainline flows stripped out, but BWB can provide a comparison spreadsheet. e. ACH said he was under the impression that the additional scenario was in effect replacing the previous methodology. VD confirmed that the additional sensitivity scenario is more for reassurance that the original methodology remains suitable. VD confirmed that the	**VD** **VD**

	furnessed flows generated using the original methodology will be the ones run through the models. f. ACH asked if BWB have a comparison of flows on the base year as well as the future year (PRTM 2022 vs surveyed 2022). VD said this data is within the spreadsheets but they haven't been compared, but BWB can provide this. g. VD said that the furnessed flows have been tested in VISSIM to understand whether the green package of mitigation is considered suitable at this stage of the process. The results between the two furnessing scenarios are similar in that the network can accommodate more vehicles whilst having a lower average delay. The results show that the majority of the green package remains suitable. BWB has added further improvements that widen the Finger Farm westbound exit to extend the length of merge and distance of two lanes as a result of the latest VISSIM modelling. h. PW asked if there are any questions on the furnessing and update on the green package. HH asked if the green package was originally determined based on a smaller development floorspace, which has now been re-tested using a higher set of flows with more traffic. PW confirmed this is correct. i. HH pointed out that there is a separate assessment regarding mezzanines and asked if the Stage 2 PRTM modeling shows the green package is suitable, then what is the position going to be regarding trip rates and floorspace i.e. 430,000sqm or 530,000sqm. j. PW said that the current position is set out in the email of 5 March 2025. The client has aspirations for additional mezzanine, but BWB do not want to revisit the modelling to justify this. k. HH asked hypothetically if, should an agreement be made to reduce trip rates for mezzanines, then will the DCO be seeking permission for additional floorspace. l. PW said that the Client's aspirations are to get approval for double the amount of mezzanine floorspace within the B8 development without this affecting the traffic flows and modelling. The floor spaces they are seeking are: i. 240,000sqm of B8 ground floorspace at EMG2 ii. 200,000sqm of B8 mezzanine floorspace (an increase from 100,000sqm at present) at EMG2 iii. 60,000sqm of B2 ground floorspace at EMG2 iv. 30,000sqm of B8 development at EMG1 v. Total is 430,000sqm but with the aspiration to double the mezzanine floorspace on EMG2 to 200,000sqm taking the total floorspace to 530,000sqm should an agreement be made to reduce the trip rate for mezzanines.	

	m. HH asked if there is a report detailing the assessment of 430,000sqm of development without any mitigation. VD confirmed that this is covered in the VISSIM modeling, which will be presented in the Transport Assessment. n. GN asked if the spreadsheets MC issued can be re-sent with the comparison of flows and additional information requested by NH. VD confirmed he will collate and send all the spreadsheets. o. GN said that NH would like to see the VISSIM models. PW said that BWB will need to tidy the models beforehand as they have only progressed to a point where BWB are comfortable with the mitigation package. However, providing VISSIM models will be of benefit as it allows the authorities to review these earlier. p. VD said that BWB will need to condense the modification files to track what is included in each scenario. Once BWB have tidied these up they can be shared with the TWG, which will make it easier for the authorities to review. q. GN asked about timescales for providing the VISSIM models. VD suggested w/c 14th April 2025. GN asked if this could be brought forward to w/c 7th April 2025 because of Easter Holidays and the momentum for progressing to Stage 2. PW said that he will talk with colleagues and advise on timescales.	**VD** **PW**
4	**Stage 2 modelling update** a. PW confirmed that BWB caught up with AECOM recently and understand that progress has been made with Stage 2 modelling. b. JM said that 90% of the mitigation coding has been complete. A number of assumptions have been made including the signal timings for the Toucan crossing on the A453. PW said BWB will respond to JM confirming the signal timings required. c. JM said once the coding is finished, the models can then be run before outputs are shared. This will include the same outputs as Stage 1a and 1b following which the reporting can be undertaken. d. PW thanked JM and asked that AECOM focus on testing the Stage 1a flows first as this is most critical but Stage 1b is still required for air quality and noise purposes as a minimum. e. PW has advised the project team that outputs will be available by the end of April to understand whether the mitigation is suitable. JM said this should be fine although there are more outputs that AECOM originally envisaged.	**BWB** **AECOM**

5	**Construction traffic calculations** a. MC summarised the dialogue that has taken place with NH to agree the final assumptions and construction traffic calculations. Following a meeting on 28th March 2025, revised spreadsheets were issued with changes to the occupancy rate for vans, which was reduced to 2 people, from 3 people previously. b. PW said that the meeting on the 28th April 2025 included Peter Goddard who has worked with Segro for a long time on construction sites and was involved in producing the original spreadsheets. BWB will only be running a single construction traffic scenario in PRTM so agreed to reduce occupancy rates for vans for expediency and to ensure a robust assessment. However, LCountyC still need to provide comments. c. MC said that the latest spreadsheets show slightly higher construction traffic numbers of 108 vehicles in the AM peak (from 93 previously) and 107 vehicles in the PM peak (from 85 previously), as a result of higher occupancy rates for vans. The details continue to show that regardless of different assumptions, peak hour construction traffic numbers are low. d. MC confirmed the construction traffic calculations do include a number of robust assumptions in terms of there being more efficient construction techniques nowadays and the volumes of material being transported per HGV, which hopefully provides comfort with the data being presented. e. PW asked whether there are any comments from NH. GN said that the information is with FA who will respond. f. PW asked whether LCountyC has any comments, taking on board what has been discussed with NH to date. HH asked where this item sits on the programme and priority against other actions. PW said it is not as critical as the mitigation package but BWB need to consider construction traffic impacts as part of the ES Chapter. g. MC said that construction traffic is more of a priority than meeting minutes. HH said that LCountyC will prioritise reports ahead of minutes as a result.	**LCountyC**
6	**VISSIM LMVR** a. PW confirmed that discussions on the VISSIM LMVR were covered in Items 2 and 3, so there is nothing further to discuss.	
7	**Vision & validate** a. PW said the latest details are set out in the email sent on 5 March 2025. This includes the 2024 survey results from EMG1, which show that	

	traffic flows are lower than before. It includes details of how mezzanines operate, which in summary are driven by loading doors and HGV parking spaces and not mezzanine levels. Mezzanine levels are used for more sophisticated racking systems and so generate far less traffic per 100sqm compared to equivalent ground floorspace. Therefore, we shouldn't be worried about mezzanines and traffic increases, so the hope is that we can increase mezzanine floorspace by 100,000sqm by applying a 50% trip rate to them to ensure no impacts on traffic flows. *b.* GN said that NH key concerns are unmitigated impacts on the SRN especially where visions do not necessarily play out as they are intended to. The stakes are high because the network is busy and fast. However, BWB's email is with NH who have been through the data and will reply. *c.* GN said that somewhere in the planning documents the floorspace will be spelt out for both ground floorspace and mezzanine floorspace so it would not be possible for Segro to increase the amount of ground floorspace from what is being applied for. *d.* MC said that the floorspaces are specified on the Parameters Plan submitted with the consultation and available on the Segro website. This currently states that the DCO is seeking permission for 300,000sqm of ground floorspace with up to 100,000sqm of mezzanines. *e.* HH said that this is not something LCountyC have supported to date but appreciates it has not been formally confirmed yet. LCountyC will therefore confirm setting out their position.	**NH** **LCountyC**
8	**Sign off sheets** a. MC summarised the current position with sign off sheets, noting LCountyC's position confirmed by email on 26/03/25: i. Stage 1a modelling has been signed by NH and NCountyC, albeit with commentary that NCountyC has not seen the PRTM Base Year Addendum, a copy of which has since been sent. DS said he would talk to TBo to confirm NCountyC's position on this. ii. Stage 1b modelling has been signed by NH and NCountyC, no further action needed. iii. Stage 1c modelling has been signed by NCountyC but is still outstanding with NH, although they have confirmed their position in writing. GN said he would arrange for the sign off sheet to be signed and returned. iv. Stage 1d modelling and Transport Reporting 1 remain outstanding with all.	**DS** **NH** **NH/NCountyC**

9	**Next steps** a. PW sets out the next steps: i. Stage 2 modelling to be continued by AECOM ii. BWB will re-send the furnessing spreadsheets with the additional information NH requested. iii. PW will report back to the project team on the core scenarios that need testing.	 **AECOM** **BWB** **BWB**
10	**AOB** a. PW asked whether there are any updates on PRTM 2023 and NH review of the model. b. GN said that NH are in discussion with LCC NDI and progress is moving.	

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 1 MAY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) – Leicestershire County Council (LCountyC)
George Nock (GN) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) – LCountyC Network Data Intelligence
Jonathan Morrow (JM) & Aled Davies (AD) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Paul Wilson (PW), Matt Corner (MC) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
Catherine Townend (CT)/Kate Stephen – National Highways (NH)
Laura Good (LG)– LCountyC Network Data Intelligence
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Alain Chandler-Hurst (ACH), Lee Templeman (LT), Fiona Ahmed (FA) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of April's modelling meeting minutes** a. PW went through April's meeting minutes and actions. In summary: i. Responses remain outstanding from LCountyC on all modelling meetings minutes for 2025. ii. Whether LCountyC has anything to add on the traffic distribution approach and the 7% of traffic originally assigned to East Midlands Airport. The approach has been agreed with NH. HH said there is no update at this stage (the Stage 2 modelling has proceeded on the revised approach which should make sense to all reassigning development traffic away from EMA). iii. DS confirmed he spoke to TBo who has signed Stage 1a PRTM forecasting reports and will report back next week. iv. BWB has issued a report setting out the methodology for the assessment work. v. Furnessing spreadsheets and VISSIM models have been shared. A meeting was held with NH on 30/04/25 to discuss such matters. PW said that VISSIM models have been shared with Richard Best of LCountyC, so if he has comments BWB can take them on board. vi. Construction traffic calculations have been shared, picking up comments from FA and HH. vii. Vision and validate / mezzanines continue to be discussed, as well as the position with sign off sheets. b. PW asked if anyone has any comments on the April 2025 minutes. GN and DS confirmed there are no comments from NH or NCountyC.	**LCountyC** **NCountyC**

	c. PW asked HH if LCountyC will respond to all modelling minutes for 2025. HH said that he will leave the action with AW.	**AW**
2	**Assessment scenarios to be tested in TA and ES** a. MC said BWB issued a Technical Note on 30.04.25 building on recent discussions regarding assessment approaches and in light of policy within TAG M4, Circular 01/2022 and IEMA Guidelines. The assessment therefore proposes the following: i. Stage 1A modelling outputs to be used as the core scenario for the Transport Assessment, in line with TAG, with Stage 1B forming a sensitivity test. ii. Stage 1B modeling outputs to be used as the core scenario for the ES Chapter, with Stage 1A forming the cumulative scenario, in line with Circular 01/2022 and IEMA Guidelines. b. PW asked if anyone has any comments at this stage, otherwise we can pick this up at the TWG meeting next week. c. GN asked whether the mitigation strategy for the SRN will be derived using Stage 1a modelling outputs. MC confirmed this is correct and that the core scenario determining the highway mitigation will be based on Stage 1a. GN thanked MC and said he will respond on the Technical Note. d. PW provided clarification for the reasons BWB has gone into this level of detail, are because Uniper have conditions that restrict the amount of development that can be delivered prior to mitigation and because of the amount of scrutiny this DCO is likely to receive.	**NH/LCountyC/ NCountyC**
3	**VISSIM model furnessing calculations** a. PW summarised that BWB had a useful meeting with GN on 30.04.25 on the furnessing spreadsheets. BWB will be updating the calculations before responding with revised spreadsheets. b. VD agreed and expanded to say that some of the formulas will be updated in line with discussions held at the meeting. Further clarification will be provided setting out the agreed methodology. c. GN agreed with the above summary and for BWB to liaise with AECOM on certain queries but looks forward to receiving revised spreadsheets to finalise the calculations ahead of the detailed junction modelling being undertaken. The clarification on the reason for option 5 was helpful. d. PW said he welcomes any comments from LCountyC or NCountyC on the furnessing, but that NH has been proactive and thorough in their review which should only help matters. All will continue to be included for correspondence wise for transparency.	**BWB** **LCountyC/ NCountyC**

4	**Stage 2 modelling update** a. PW recapped that since the Stage 1a modelling outputs were received, BWB has undertaken furnessing exercises and tested flows in VISSIM to provide confidence as far as practically possible at said stage of the process that the current mitigation scheme remains suitable ahead of Stage 2 PRTM modelling being undertaken. b. PW confirmed that initial Stage 2a outputs have now been received from AECOM. The information has been reviewed by BWB and meetings have been held with AECOM and LCountyC NDI to discuss key outputs. c. PW shared a presentation on screen from AECOM comparing flow differences between Stage 2a (with development, with mitigation) and Stage 1a without development flows. The main purpose of this was to understand whether the new M1 NB to A50 WB free flow link provides the benefits has we were hoping for. In summary: i. 1,500 PCUs are using the new link in the AM peak, resulting in a 600 PCU reduction on the M1 towards Junction 24 and a 600 PCU reduction on the A453 northbound. This is therefore positive in that the new link road is doing what it intended to do. ii. There are predicted to be traffic increases around Diseworth along The Green and we are mindful that whilst the junctions affected may work within capacity, there is a perception from local residents of traffic routing around the village. iii. AECOM will be providing a revised AoI based on the Stage 2a modelling but the initial plots suggest that the AoI will reduce compared to Stage 1a. iv. The key time period is the AM peak but the results show similarities in the PM peak. d. GN said the results are positive and the new free flow link is working and becoming a more attractive route but would like to see the 2028 opening year details. PW agreed and said that the aspiration is playing out and 2028 will formally be considered, but 2038 has been focused on in the first instance because it provides a worst-case assessment. GN confirmed that NH will be intrigued to see that the merge from the new link onto the A50 will work, and that the proposals will not result in any queuing back through any of the circulatory lanes at M25, for example, which BWB will consider in their analysis. e. PW shared a table on screen summarising PRTM modelling results of each junction in the study area and how they are expected to perform based on the Stage 2a modelling. The junctions highlighted green are expected to operate within capacity or experience nil	**BWB**

detriment. The junctions highlighted yellow need further attention. In summary:

i. Finger Farm shows a betterment in capacity (and indeed it is forecast to operate within capacity) because of the new free flow link and traffic re-assignment away from this junction.

ii. The EMG1 access is predicted to be over capacity but showing nil detriment in terms of EMG2 impacts. However, we need to be mindful of capacity at this location because it serves Segro's existing development, and a Personal Injury Collision issue has been identified. If we optimise the signal timings to get the full benefits of the mitigation, then this should hopefully resolve any issues.

iii. M1 Junction 24 is showing capacity problems on the M1/A50 southbound arm, but similarly we can optimise the signal timings to get the full benefits of the mitigation, which should hopefully improve this.

iv. The A453/Hunter Road roundabout (EMG2 site access) has issues on the A453 eastern arm with a V/C of 102%. There are 300 vehicles routing around Diseworth and along the A453 from the west to EMG2 or East Midlands Airport. We would like to limit this as far as possible and, so to show a more accurate picture propose increasing the flare lengths on both of the A453 arms of the Hunter Road roundabout so that it can be modelled as two lanes in PRTM. The hope is that this provides greater capacity to re-route traffic currently using Diseworth around the A42 and in via the east which has greater capacity as a result of the mitigation proposals. AECOM have confirmed that flares greater than 60m can be treated as two lanes in modelling terms.

f. JM confirmed that saturation flows in PRTM are set at 1,100 PCU per lane and 550 PCU for flares, hence the A453 arms of the Hunter Road roundabout are currently coded with a saturation flow of 1,650 PCUs, as standard. AECOM carried out some historic testing which showed that once flare lengths reach 45 metres, they have about 80% saturation flow compared to full lane and once flares exceed 60m the saturation flow is close to two full lanes.

g. PW said that BWB has committed to re-running Stage 2a modelling with the improvements i.e. optimisation of M1 J24 and EMG1 access and including for/coding two lanes on the A453 approach arms of the Hunter Road roundabout (i.e. for greater than 60 metres). BWB will update the flare lengths on the general arrangement drawing to show this. The hope is that this provides more capacity to draw traffic away from Diseworth.

h. HH asked if these changes will be included as mitigation or within the base model. PW confirmed they will form part of the mitigation.

	i. HH asked if this will be provided in the forecasting report. PW said that so far Stage 1 forecasting reports have been shared, which exclude the mitigation scenarios, but Stage 2 forecasting reports will be produced once the iterative modelling exercise has been carried out. HH confirmed it is difficult to comment at this stage without seeing reports and details properly. j. PW acknowledged this information is 'hot off the press' but that these assessments form an iterative process to the Stage 2 modelling to fine tune the mitigation strategy and ensure it is more accurate in showing the true benefits and ultimately with the aim of limiting traffic impacts around Diseworth. k. HH said BWB are entitled to use their professional judgement in revisiting the modelling but LCountyC cannot provide detailed comments on the approach without seeing the information. l. PW agreed and said that the purpose of presenting this initial information is to take the TWG on the journey and ensure we are transparent in the process. m. HH asked for clarification whether this assessment work is an iteration of the strategic modelling and mitigation scheme, which is being updated and re-tested in PRTM. PW confirmed that is correct. HH said this is what would be expected, although the work is being undertaken at pace because of project timescales, without the time for authorities to fully review the details. n. PW said the ideal situation would have been for the Stage 2 modelling to have addressed all issues. Nevertheless, we are in a good position overall because the new free flow link is attracting a lot of traffic via the M1 but there are final tweaks needed to refine the mitigation and modelling to present the best picture in the Transport Assessment. o. HH asked if the mitigation tested in Stage 2a modelling is what is required purely for EMG2 or if it includes the wider strategic sites. MC confirmed it includes the green package tied to EMG2 only. p. HH said he understands this work is focusing on what is needed to accommodate EMG2 but there are proposals being developed to look at holistic mitigation to accommodate wider planned development, so questioned whether these improvements differ to those and how they do not compromise the wider scheme. q. PW reminded everyone that BWB has been working with the consortium to look at the wider mitigation and the EMG2 green package forms part of that bigger scheme. BWB appreciate the wider scheme needs formally testing but ultimately the EMG2 Transport Assessment needs to focus on the mitigation to accommodate the development.	

	r. PB agreed that BWB needs to propose mitigation to accommodate EMG2 but said the demand used to test the mitigation includes Uniper as well as EMG2 traffic flows, so the mitigation will not make the junctions work within capacity. s. PW confirmed that the aim of the mitigation will be to show nil detriment for EMG2 and not to accommodate all future development. t. HH asked whether there is a risk that, because Uniper traffic is included in the modelling, can they rely on the green package to bring forward more of their development beyond what has consent. PW confirmed not, because the green package only relates to EMG2, so Uniper would need to consider their own mitigation above anything proposed by EMG2, setting out that issues remain on the A453 to the northeast of M1 junction 24, for example. u. GN said that all the uncertainty log details were discussed a while ago and asked whether this remains acceptable to all parties. v. HH said that the modelling work currently being undertaken has not been formally signed off. w. PB said the core uncertainty log that includes the other Freeport sites is correct and should be adopted as the main scenario and asked whether a sensitivity test is required that removes these sites as a result. x. MC said that a sensitivity test will be undertaken as part of the Stage 1b modelling, which is what is set out in the TA and ES Assessment Methodology note discussed at Item 2. y. PB suggested that NH and LCountyC will need to see the Stage 2a and 2b modelling as a result then. PW confirmed both are being tested for this very reason hence will be provided, as detailed in the Technical Note, to cover both bases. z. HH said that the wider planned development will need consideration and whilst initial work has been undertaken by Steve Johnstone, this needs formally evidencing. PW said that these sites may never come forward and so whilst conversations have started, we need to primarily consider EMG2 within the TA. aa. HH said that LCountyC needs to consider wider planned growth and would like to know that the EMG2 green package forms part of a wider mitigation scheme. PW confirmed that BWB has done what it can at this stage of the process to align the EMG2 mitigation with the wider scheme but the wider work is slightly behind in its programme. bb. HH asked how roundabouts are coded in PRTM 2019 and how this will change in PRTM 2023.	

	cc. JM said that the difference is with saturation flows. Standard saturation flows are applied to lanes in PRTM 2019, whereas in PRTM 2023, roundabouts are exploded into multiple nodes so the approach to coding is different and more accurately. dd. GN provided an update on PRTM 2023. NH met LCountyC NDI last week and a large amount of information has been shared which NH is reviewing. The LMVR shows positive performance levels, but NH will be able to provide further updates soon. ee. PW summarised to say that AECOM will be instructed to revisit the Stage 2a modelling (as well as carry out Stage 2b) including the optimisation and flare length increases and will report back with updated modelling results.	**AECOM**
5	**Construction traffic calculations** a. PW thanked NH and LCountyC for recent comments and reminded everyone that version P3 of the report has been shared. b. MC confirmed that the revised report included a commitment to capping and monitoring construction traffic numbers at the request of NH. c. PW suggested that AECOM can now be instructed to carry out the construction traffic modelling in PRTM, as any minor changes to flare lengths would not impact numbers.	**BWB**
6	**VISSIM LMVR** a. PW recapped and that NH has approved the model and whether comments are still being awaited from LCountyC. b. VD said that an agreement has been received from AW of LCountyC, so no further information is required.	
7	**Vision & validate / mezzanines** a. PW referred to his email of 05.03.25 and whether there are any comments on the detail. b. GN said NH are reviewing the email as there are implications on it from a demand side and practical implications as to how it would work in compliance. NH has carried out its own assessment with planning legals and will therefore respond. c. HH asked what the plan will be once responses are received from authorities. PW said that there is no intention of re-running any modelling and the hope is that authorities accept a reduced trip rate to mezzanines, which are currently assigned at 100%. The detail in terms of change to quantum of development will then be updated	

	on the Parameters Plan. d. GN summarised that the Applicant is seeking an additional 100,000sqm of mezzanine to what is currently proposed on the Parameters Plan, with total development increasing from 430,000sqm to 530,000sqm. e. HH asked when a response is needed by, as feedback so far has been fairly negative, so what is the plan if this position remains. f. PW said we would take a view as to how we proceed once we have responses back but will keep the TWG informed on any decisions. Hopefully the information in the email of 05.03.25 helps inform decisions as it includes more detail on how mezzanines actually operate.	**NH/LCountyC**
8	**Sign off sheets** a. MC summarised the current position with sign off sheets, which remains largely unchanged from the April 2025 meeting: i. MC asked DS what NCountyC's current position is on Stage 1A modelling, as this was originally signed with a caveat that the PRTM base model addendum had not been reviewed. DS said TBo will be re-issuing this. ii. Stage 1B has been signed by NH and NCountyC iii. Stage 1C remains outstanding with GN but the position is known and remains unchanged. iv. Stage 1D still needs signing but has been agreed with NH and NCountyC separately. b. GN confirmed that BWB understand NH position on those documents and whilst they will sign the sheets, are prioritising other key items such as furnessing, VISSIM etc.	**NCountyC** **GN** **NH/NCountyC**
9	**AOB** a. MC said that BWB has responded to NH comments on the Stage 1a forecasting report, setting out how we intend to deal with each of the issues raised. GN thanked MC and said that NH will respond to the suggested approach. b. MC referred to the Stage 1b forecasting report issued at the beginning of April and whether comments will be received from the TWG. GN said that this will be lower priority as it is not a core test but will respond. c. HH asked about project programme. PW said there are no definitive	**GN** **GN/LCountyC**

	update but this should be clearer next week.	

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 5 JUNE 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
Harry Horsley (HH) & Adrian Whiteman (AW) – Leicestershire County Council (LCountyC)
George Nock (GN), Alain Chandler-Hurst (ACH), Fiona Ahmed (FA – first 20 minutes only) & Simon Doyle (SD) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Jonathan Morrow (JM), Aled Davies (AD) & Billy Wong (BW) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Paul Wilson (PW), Simon Hilditch (SH – first 20 minutes only), Vibeeshan Devaharan (VD) & Charlie Cresswell (CC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Catherine Townend (CT)/Kate Stephen – National Highways (NH)
Tom Boylan (TBo) – Nottinghamshire County Council (NCountyC)
Lee Templeman (LT) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Ian Rigby (IR) – Segro
Matt Corner (MC) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of May's modelling meeting minutes** a. PW went through May's meeting minutes and actions. In summary: i. HH has confirmed LCountyC's position in terms of not agreeing minutes from January 2025 onwards, so no further actions remain outstanding. ii. BWB has received formal sign off sheets from NCountyC on the Stage 1A PRTM forecasting report. iii. HH asked whether the Stage 1A modelling outputs will be used as the core assessment for the TA. PW referred to the TA and ES Chapter Assessment Methodology Note and confirmed that both Stage 1A and 1B will be covered within the documents but the core scenarios for the TA and ES Chapter are summarised within the conclusions of the Technical Note. iv. HH said that LCountyC will not agree with that approach. The wider mitigation strategy across the consortium should be confirmed and then this divided up between the various parties. v. PW said that work is on-going with the consortium to determine the wider scheme but it is behind on programme compared to EMG2. Ultimately, the core modelling scenario is TAG compliant and has been derived in discussion with the TWG over some time. The mitigation being proposed by EMG2 forms part of the wider scheme but it is appreciated that full details are not yet available. They won't be available at the time the EMG2 DCO is submitted but one	

	would hope that this will not hold up the determination of the EMG2 DCO. vi. HH said that this is a client risk that has been discussed before. PW said that there have not been conversations about the need to determine the wider mitigation before EMG2 can proceed because otherwise no development could come forward until this has been determined. HH disagreed and said this has been LCountyC's position for a while. vii. PW said that the planning data and highway scheme assumptions included in the uncertainty log were agreed some time ago and modelling has continued on that basis. viii. HH said it has in terms of planned growth and what should be considered in sensitivity testing but agreements changed (from a LCountyC perspective) in December 2024 when there were discussions about which version of the PRTM model is to be used. The mitigation has not been agreed because details have not been made available. ix. PW said the mitigation was included in the original consultation. HH said it was but that the response from LCountyC was not entirely positive. x. PW asked for NH position on the modelling and the planning data assumptions included in the core scenario i.e. Stage 1A modelling. GN spoke about the demand used to determine the proposed mitigation, which is based on future years of 2028 and 2038. NH do not approve the use of Stage 1B modelling outputs and it is correct that Stage 1A outputs are used as the core scenario. In past discussions, it was agreed that the wider consortium work is dealt with separately, which is now the case. NH would like to see the demand used to inform the mitigation scheme in line with Uncertainty Log v7 and proforma v14. xi. GN said that he understands the proposed mitigation scheme has been designed so that EMG2 can come forward in isolation of the wider consortium but eventually there will be a need to understand whether this compromises delivery of the wider planned growth. NH will provide advice on the wider mitigation scheme alongside the consortium as it emerges. xii. HH said it would be helpful for BWB to have a conversation with Segro about the overall strategy for delivering the mitigation and planned growth. The TWG have not received full details of the mitigation scheme and transport modelling to be able to formally comment on them. This means details such as access and highway mitigation remain outstanding. xiii. PW acknowledged this and agreed that the project is moving at pace and information is being shared when available so	**BWB**

	appreciates the TWG cannot formally comment on things during these meetings. xiv. GN suggested that this topic is revisited during the TWG meeting on 12th June 2025. b. PW referred back to the May 2025 meeting minutes and provided the following further updates i. AECOM are now up and running with the Stage 2A modelling and an update is to be provided during the meeting. ii. Mezzanine related matters have been discussed and BWB will respond to FA's email. iii. Sign off sheets have been progressed with updates received on the Stage 1C modelling, Stage 1D modelling and Transport Reporting 1 sheets from NH. c. PW asked if NH and NCountyC are happy with the May 2025 meeting minutes. GN said they capture the comments but is happy to review updated minutes if the plan is to revise them. DS said NCountyC's position is the same.	**BWB**
2	**National Highways related queries** <u>Updated furnessed demand for VISSIM and local junction models</u> a. GN asked if BWB will be providing the updated demand input and when Jacobs can expect this. b. PW said that BWB has been focusing on the VISSIM work and liaising with AECOM on the PRTM modelling, hence why certain outputs are yet to be shared. c. VD said BWB have worked through NH comments on the furnessing spreadsheet and should be able to issue revised versions next week (subsequently issued on 10/6/25). <u>Drawings to develop the DS network</u> d. GN said that if the drawings can be shared then the coding can be checked. e. VD said there have been some minor changes to the coding which need finalising before issued. f. GN asked if the 'with mitigation' forecasting report will be shared and timescales for this. g. PW confirmed the report will be shared and that AECOM are due to issue the Stage 2A forecasting report by mid w/c 9th June 2025.	**BWB** **AECOM/BWB**

	Following that BWB will need to review before it is issued, so the TWG can expect to receive a copy during w/c 16th June 2025 (subsequently issued on 10/6/25).	
	h. GN asked whether NH will receive a response to FA's email regarding mezzanines. PW said IR is on leave this week so the response will follow once he is back. In summary, Segro agree with restricting the use of the mezzanine floorspace and also moving forward with the 56% single occupancy mode share target. Therefore, the EMG2 DCO will progress with 200,000sqm of mezzanine floorspace (up from 100,000sqm previously).	**BWB**
	i. FA asked about the use of the mezzanine floorspace and how the restriction will be tied to the DCO planning conditions. SHi said that the planning lawyers are currently drafting the wording for the DCO.	
	j. FA asked about timescales for receiving information moving forward and whether a revised programme can be shared. As we are approaching the summer holidays, this will be more critical to ensure resources are allocated.	
	k. PW said it will be easier to provide timescales by email but in summary the draft ES Chapter including the Transport Assessment should be largely complete by the end of June and will be included in the second consultation, so the TWG will then see the vast majority of the information.	**BWB**
	<u>With mitigation forecasting report</u>	
	l. SHi said that the latest PRTM 'with mitigation' model run includes the additional flare on the A453 westbound approach to the site access and the additional widening at the Finger Farm westbound exit. The remainder of the scheme remains unchanged.	
	m. SHi said that BWB has been liaising with JB and other colleagues at NH (included SES team) on the mitigation design. There have been changes to the A50 westbound exit at M1 Junction 24 due to concerns about merge points, with NH SES asking whether we can remove the segregated left turn lane. This enables us to retain two lanes on the A50 exit and for the segregated left turn lane to be signalised. This means there will be the same number of merge/conflicts points.	
	n. SHi said that VD is modelling the above changes in VISSIM. The layout of the A453 northbound to Junction 24 still needs finalising but the VISSIM modelling appears to be showing that this arrangement works well.	
	o. GN thanked SHi and said that NH still need to understand the future demand flows and impacts of the EMG2 development on the existing road network before they can review the mitigation but it sounds positive.	

	p. SHi said that once the mitigation drawings have been finalised a pack of information will be issued to the TWG so that the geometry can be reviewed.	**BWB**
3	**Stage 2 PRTM modelling** a. JM shared a presentation of the Stage 2A modelling results and provided the following update: i. The latest mitigation scheme that has been coded into PRTM; the main piece of infrastructure comprising the new free flow link from the M1 northbound to A50 westbound. ii. Certain parts of the model have been optimised, including the EMG1 access westbound circulatory and M1 Junction 24 southbound nodes (where improvements are proposed) to see the full benefits of the mitigation. iii. The PRTM modelling has gone through an iterative process to get to the current scheme. The fifth iteration is the one that will be reported on. iv. The mitigation results in more traffic using the new free flow link and reductions in traffic on the A453 and M1 northbound off-slip at Junction 24. There are also increases in traffic predicted along the A6 but overall a higher volume of traffic is predicted to use the SRN. b. PW asked for the presentation slides which can then be shared with the TWG. c. PW reiterated to say that iteration 5 is the option that has been adopted and will be reported on. However, the PRTM modelling includes all draft Local Plan traffic and so whilst will not show the network working within capacity, it will demonstrate significant betterment and the impacts of EMG2 mitigated, which should be viewed positively by all. d. HH asked why iteration 4 that includes for dualling of the A453 was considered but then excluded from iteration 5. HH also asked whether the signal controlled crossing on the A453 to the east of the site access roundabout is included. e. PW confirmed that the proposed signal controlled crossing on the A453 has been included. In terms of iteration 4, BWB were interested to understand whether dualling would provide enough capacity to accommodate all planned development across the consortium sites, but the results showed that it is not required for EMG2, hence it was removed from the proposed EMG2 mitigation. f. HH asked if V/C plots are available for junctions along the A453 including the EMG2 site access roundabout. g. PW said these will be available and can be shared. The access	**AECOM**

	strategy only includes a single point of access from the A453/Hunter Road roundabout.	
	h. JM said that the PRTM forecasting report will be shared with LCC NDI and BWB next week. PW said that once it has been reviewed it will be shared with the TWG, planned to be w/c 16th June 2025 (it was subsequently sent on 19/6/25).	**AECOM/BWB**
	i. ACH asked if there will be further plots showing the differences between the 'with development' and 'with development, with mitigation' scenarios.	
	j. JM said the above has not been included in the forecasting report but can be provided if required. ACH said it would be a useful comparison to understand where traffic is re-routing from with the mitigation in place. HH agreed this would be useful and the traffic will be re-routed from the local road network.	
	k. PW asked if JM could include this information. JM confirmed this can be added and will include flow difference plots, v/c plots and delay difference plots.	**AECOM**
	l. ACH asked about optimisation and how this was derived. JM confirmed that optimisation has only been carried out at two nodes where there was a need to unlock the true capacity and benefits of the mitigation. This is at the westbound circulatory node of the EMG1 access and M1 Junction 24 southbound slip road.	
	m. VD confirmed the optimisation of signal timings were derived from the VISSIM modelling. The VISSIM model therefore aligns with the PRTM modelling for consistency.	
	n. PW clarified that whilst an iteration 6 has been run in PRTM, reducing the green time on Hilton Hotel Lane to limit the amount of traffic exiting from said arm on M1J24 versus the M1(N)/A50 eastbound entry this will not be formally included in the PRTM modelling report (albeit details will still be provided). This is because it's effects were more local to said area, which JM agreed with.	
	o. VD said in terms of furnessing, the approach adopted for Stage 1A remains the same as that previously set out and agreed. However, for the Stage 2A modelling inclusive of the proposed mitigation, there is a need to alter the furnessing methodology to accurately consider the effects of traffic re-routing. To deal with this, BWB propose to look at the change in turning movements individually within PRTM and add them on to the surveyed flows.	
	p. PB suggested whether the turning movements from PRTM are used instead of the survey. VD said this is because we want to retain some of the surveyed flows within the methodology. PB said that the link target derivation would be retained from the surveys and it is the turning movements from PRTM that would be the difference. VD said	**BWB**

	this can be explored. q. PW confirmed that BWB will share our thoughts and recommended methodology, taking on board PB comments, for the TWG to review and confirm. r. GN asked that the Stage 1A furnessed flows are sent first followed by an updated furnessing methodology report that sets out details of the furnessing methodology for the 'with mitigation' scenario. This should consider the recommendations from PB and a comparison against the methodology suggested by VD. VD confirmed BWB will provide this information.	**BWB** **BWB**
5	**Construction traffic modelling** a. PW referred back to the trip generation report which has been agreed with NH following input from FA. BWB therefore plan to instruct AECOM to carry out the construction traffic modelling and have liaised with JM on the methodology for this. It is proposed to only consider a future year of 2028 testing traffic from the highest year for robustness. b. JM shared a presentation with slides showing a proposed distribution pattern for construction traffic. The distribution approach adopts the same gravity model approach. In terms of HGVs, the distribution looks sensible and splits HGVs fairly evenly across the SRN, with slightly higher percentages along the M1 south and A42. The distribution of car traffic also splits fairly evenly, with the highest volumes of traffic similarly travelling south on the M1 and A42 but with some increases on the local road network. c. PW suggested that the slides are shared with the TWG for their thoughts but appreciates that there is a risk should BWB commit to instructing the construction traffic modelling ahead of these details being agreed.	**BWB**
6	**2023 PRTM modelling approach** a. PW said that discussions regarding PRTM 2023 continue and that BWB are committed to reviewing this as a sense check of the PRTM 2019 modelling work. However, we do not intend on re-modelling all scenarios and the purpose of the PRTM 2023 modelling is to understand the differences in traffic and whether this could affect the proposed mitigation strategy. b. PW understanding from discussions with AECOM is that the network differs between PRTM 2019 and 2023 but there is an approach that can be adopted to compare traffic flows from the two models. c. JM said that AECOM can prepare a skeletal excel spreadsheet that compares traffic flows as best as possible focusing on the key routes along the M1, A50, A453 etc. This will give an indication as to whether	

	flows have reduced or increased. This will compare baseline traffic i.e. excluding EMG2 traffic. d. PW said the above approach seems sensible which should give us the information we require. If the comparison shows there has been a reduction in traffic within PRTM 2023, then this aligns with BWB's Covid-19 note. e. GN asked if the methodology can be set out in a note. PW said this can be set out in writing.	**AECOM**
7	**AOB** a. PW asked if there is AOB. No further comments received so PW thanked everyone for their time and ended the meeting.	

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 3 JULY 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
George Nock (GN), Alain Chandler-Hurst (ACH) & Simon Doyle (SD) – c/o Jacobs; National Highways (NH) transport consultants
Julia Brown (JB) – Leicestershire County Council (LCountyC) Network Data Intelligence
Jonathan Morrow (JM), Aled Davies (AD) & Billy Wong (BW) – AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Paul Wilson (PW), Matt Corner (MC), Vibeeshan Devaharan (VD) & Charlie Cresswell (CC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Harry Horsley (HH) & Adrian Whiteman (AW) – LCountyC
Catherine Townend (CT) & Kate Stephen (KS) – NH
Tom Boylan (TBo) – (NCountyC)
Fiona Ahmed (FA), Lee Templeman (LT) & Jeremy Bloom (JB) – c/o Jacobs; NH transport consultants
Patrick Brooks (PB) & Laura Good (LG) – LCountyC Network Data Intelligence
Ian Rigby (IR) – Segro
Simon Hilditch (SH) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of June's modelling meeting minutes** a. PW went through June's meeting actions, as follows: i. Paul has raised with Segro the point LCountyC made that the EMG2 mitigation should align with, and follow, the wider mitigation strategy for the EM Growth Point scheme. ii. Wording to control the use of mezzanines within the EMG2 DCO was sent. GN confirmed that NH's legal team have gone back to Segro directly seeking to tighten the wording. iii. Details about traffic flow furnessing form an agenda item in today's meeting. iv. Timescales for issuing information were provided at the last meeting and the Transport Assessment (TA) includes everything within the original programme. v. Comments have been received from LCountyC on the geometric highway design drawings and are being considered accordingly. vi. Stage 2A modelling forecasting reports and updated information has been received from AECOM and can be discussed at today's meeting. vii. Presentation slides showing the distribution of construction traffic were shared. AECOM has progressed the PRTM modelling in line with that distribution pattern. viii. There is an action with AECOM to prepare a note setting out the approach for PRTM 2023 modelling. JM asked whether a base year flow comparison can be undertaken and provided in a brief email format. PW agreed this is suitable at this stage of the process.	**AECOM**

2	**Stage 2A PRTM Modelling and Forecasting Report** a. PW reminded everyone that the first draft of the Stage 2A forecasting report was issued on 19/06/25. BWB received initial comments from GN which were woven into a revised version and since then further comments were received from GN on 26/06/25. b. GN asked if AECOM is clear with what NH have asked for in terms of the updates and additional information. JM confirmed everything is clear and that updated reports for Stage 2A and 2B modelling have been issued to BWB. c. GN asked if AECOM can share the updated figures relating to 'Point 4' of his email dated 26/06/25 on screen.JM shared the email on screen and presented the updated figures at Figure 3.9 (2028 flow difference plots), Figure 3.10 (2038 flow difference plots), Figure A.1 (2028 forecast flow change) and Figure A.2 (2038 forecast flow change). d. JM also shared a separate Excel spreadsheet containing the information requested within Points 1-3 of GN email dated 26/06/25. The plan is to send the information to LCountyC NDI this afternoon for checking before they send to BWB. GN said the information looks suitable and in line with what has been requested. e. SD clarified that further information on how the M1 northbound to A50 westbound merge has been coded is being requested to ensure that it is not underestimating the amount of traffic that could use this route and therefore potentially affecting demand. f. GN asked to view Figure 3.2 relating to development light vehicle arrivals to EMG2 in the 2028 AM peak hour, which shows vehicles are routing through the centre of Castle Donington via A50 Junction 1, rather than continuing to M1 Junction 24A. GN asked if confirmation can be provided on the number of vehicles using this route. g. JM said that separate figures have been created with numbers showing the traffic flow volumes, which will be shared with the pack of information. h. GN suggested that whilst it is a matter for LCountyC, the PRTM modelling shows that development traffic is routing through the centre of Castle Donington rather than the bypass. However, it may be that this traffic can be modelled in VISSIM to demonstrate that it can remain on the SRN via M1 Junction 24A. NH will consider accordingly and refer back with any suggested actions. i. PW asked if NH are likely to have any fundamental issues with the PRTM modeling or if the comments are more points of detail. GN said the primary focus is on the M1 northbound to A50 westbound merge and how that has been coded. Other comments are more points of detail which may require additional sensitivity tests for example – they do not have any concerns as such.	**AECOM** **AECOM** **AECOM**

	j. PW said that discussions have been held in earlier meetings about traffic increases through Castle Donington, where Rebecca Henson made a comment about the sensitivity of this route and for BWB to be mindful of any increases. However, during the public consultation events, discussions were held about route choices through Castle Donington and residents said that vehicles travelling to the A50 would use the bypass rather than the High Street. The understanding is that journey times for both routes are similar in PRTM hence why the model is suggesting there will be traffic attracted to the High Street. k. GN acknowledged this point but said it may be best for this traffic to be on the SRN but either way this is a matter that can be dealt with in VISSIM rather than the strategic model if required (unless actual traffic flows are small that does not warrant any further assessment). l. PW said BWB will consider any queries post sharing of AECOM's responses and will be sharing VISSIM models with NH as soon as they are able to, where no doubt comments will be received from NH, so BWB can weave these additional sensitivity tests in if/when required.	
3	**Traffic flow furnessing demand matrices and revised notes** a. PW said that BWB will be considering the comments raised by PB and his suggested approach for how traffic flows can be furnessed. For now, the flows in the TA are based on the method BWB set out however a comparison will still be made and shared separately. b. PW referred back to comments received from SD who picked up on an inaccuracy in HGV movements within the VISSIM base model, even if it had previously been signed off. BWB has since updated this which resulted in changes being made to the base VISSIM model, details of which are provided in the TA. BWB will however respond to NH setting out the changes, clarifying any queries raised and the approach adopted in updating the VISSIM model for clarity. c. VD added that the M1 and A42 mainline flows were also being underestimated as a result, so these have been updated using Webtris information, which were re-furnessed to ensure they aligned. The VISSIM base model now validates well. We can therefore submit the revised furnessing note including for a comparison exercise against PB approach. This information should be issued by the end of next week as time is needed to tidy up the models beforehand. d. GN asked whether both AM and PM peaks needed re-validating in the base VISSIM model. VD confirmed both peak hours needed re-validating. e. GN asked if there have been any network changes. VD confirmed there has not been any network changes and all changes related to traffic flows.	**BWB** **BWB**

	f. GN asked if the information submitted with the second consultation includes these model updates. PW confirmed the TA is up to date with NH comments so there is a lot of information available to review. BWB will however respond directly to NH with the VISSIM models, so NH have a pack of information in one place. g. GN asked if the above includes the revised VISSIM LMVR. PW confirmed it does, which is appended to the TA. The TA therefore includes all the information with the exception of PRTM Stage 2B modelling and construction traffic modelling details, which will follow. h. GN asked what the best approach is for dealing with the off-line email exchanges from 18 June 2025. PW said that BWB will respond to that email by the end of next week to formally set out the updates. i. GN suggested that given the significant amounts of work that need reviewing, some responses may need to follow post 29th July 2025 consultation period, but was very pleased to hear that the suggested changes had been incorporated within the non-statutory consultation submission.	**BWB**
4	**AOB** *a.* PW thanked JM for the recent emails and confirmed that updated Stage 2A and Stage 2B forecasting reports have been received. JM said there is one final change needed to the Stage 2A forecasting report. PW said he will wait for this before circulating a copy to the TWG. *b.* JM said the construction traffic modelling forecasting report has been drafted but needs reviewing before being sent. This will follow the above reports. *c.* PW asked if DS is comfortable with the information that has been shared. DS said he is happy and will want to see final conclusions. He will pick up emails sent yesterday regarding June's meeting minutes. *d.* GN asked what the latest version of the VISSIM LMVR is. MC said that both the previous and current versions are appended to the TA. Revision P4 is the latest VISSIM LMVR.	**AECOM** **AECOM**

EAST MIDLANDS GATEWAY PHASE 2 – MONTHLY MODELLING MEETING;
THURSDAY 7 AUGUST 2025 AT 1000 HOURS (ON TEAMS)

ATTENDEES:
George Nock (GN) – c/o Jacobs; National Highways (NH) transport consultants
Harry Horsley (HH) & Adrian Whiteman (AW) – LCountyC
Patrick Brooks (PB) & Laura Good (LG) – Leicestershire County Council (LCountyC) Network Data Intelligence (NDI)
Aled Davies (AD)– AECOM
Daniel Sullivan (DS) – Nottinghamshire County Council (NCountyC)
Matt Corner (MC) & Charlie Cresswell (CC) – BWB Consulting Limited; Segro transport consultants

APOLOGIES/ALSO ISSUED TO:
Kate Stephen (KS) – NH
Tom Boylan (TBo) – NCountyC
Fiona Ahmed (FA), Lee Templeman (LT), Jeremy Bloom (JB), Alain Chandler-Hurst (ACH) & Simon Doyle (SD) – c/o Jacobs; NH transport consultants
Julia Brown (JB) – LCountyC NDI
Jonathan Morrow (JM) & Billy Wong (BW) – AECOM
Ian Rigby (IR) – Segro
Paul Wilson (PW), Simon Hilditch (SH) & Vibeeshan Devaharan (VD) – BWB Consulting Limited; Segro transport consultants

MINUTES:

Agenda item		Action
1	**Review of July's modelling meeting minutes** a. MC went through July's meeting actions, as follows: i. LCountyC NDI have provided a quote for AECOM to carry out the PRTM 2019 / 2023 flow comparisons. BWB will send instructions to allow AECOM to start this work. *NB instructions were issued to LCC NDI on 07/08/25.* ii. AECOM produced a spreadsheet containing the additional information requested by NH on the Stage 2A forecast modelling. This has been circulated to the TWG and forms an agenda item in the meeting. iii. Similarly, AECOM provided additional outputs showing the volume of traffic predicted to route via Castle Donington. GN confirmed this item has now been resolved and there are no further actions outstanding but NH will confirm this in the Technical Note they are producing. iv. BWB sent a pack of information with revised VISSIM modelling and furnessed demand flows on of 07/07/25. v. BWB circulated the revised Stage 2A and 2B PRTM forecasting reports on 14/07/25. vi. BWB also circulated the construction traffic PRTM forecasting report on 14/07/25. b. MC asked if there are any comments on July's minutes. No comments received, hence they are agreed.	**NH**

2	**VISSIM related work** a. MC referred to GN email of 29/07/25 relating to the Stage 1A VISSIM modelling which raised the following three substantive issues: i. **Convergence** – relating to undertaking convergence for each scenario separately rather than using the same path files for all future forecast scenarios. ii. **Development traffic EMG2** – relating to warm up and cool down periods and how development trips have been modelled. iii. **Model runs** – the number of times the with development scenarios had been run. b. MC confirmed that a pack of information has been issued to NH responding to the above substantive issues. c. GN said the biggest issue relates to convergence but note and until the assignment of convergence has been addressed, NH will not be able to support the modelling. d. CC provided an update on the convergence issue and said that the Stage 1A modelling identified congestion. The modelling was therefore updated to bring down the demand to circa 80% to achieve convergence before re-running the models for the 10 iterations. This has focused on the Stage 1A scenarios but the same methodology will be applied to Stage 1B scenarios. BWB are now working through the Stage 2 modelling scenarios.	
3	**Traffic flow furnessing demand matrices** a. MC referred to comments received from NH requesting a different furnessing approach for the Stage 2A scenario. This alternative furnessing approach has been carried out and the revised demand flows have been shared with the TWG. The alternative approach results in slight changes to the turning movements at certain arms but the total number of flows through the network is similar, or possibly marginally less compared to the original furnessing approach. b. GN said that NH have received the details and will review the revised furnessed demand flows but it will be weeks until a response is available due to workload. c. MC said that BWB have received comments from AW on behalf of LCountyC on the furnessing approach. A number of the comments were points of clarification and others should be addressed in the latest pack of information sent to NH but BWB will formally response to AW.	**NH** **BWB**
4	**Stage 2A/2B PRTM forecasting reports** a. MC said that revised reports were issued on 14/07/25 and BWB will	**NH/LCountyC/**

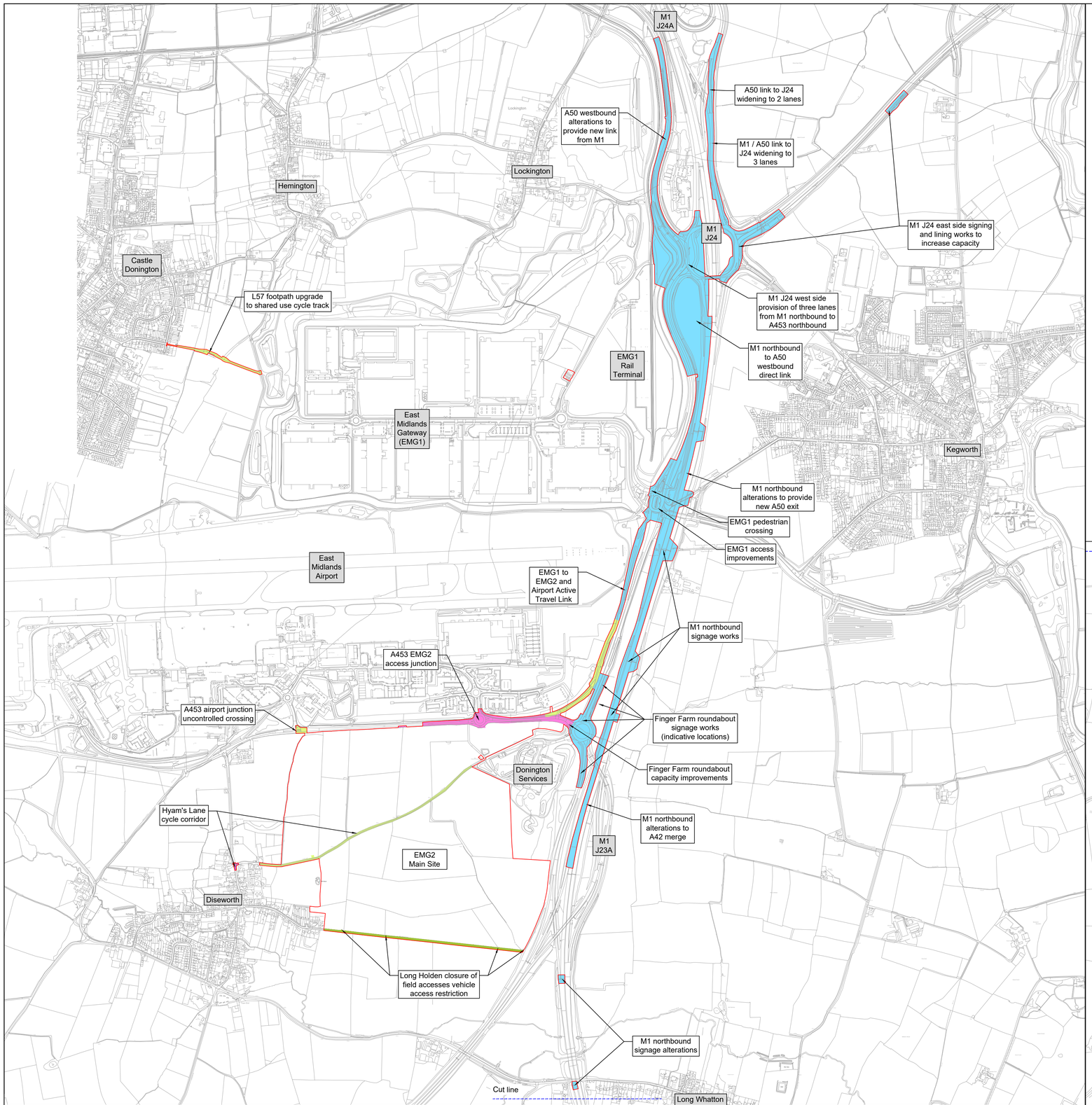
	await comments from the TWG. b. MC said that comments were received from NH regarding the M1 NB to A50 WB merge. AECOM have considered this further and have carried out a sensitivity test that models the new link road with two lanes with a 4,000 PCU saturation flow to understand whether there would be greater demand using this route if capacity is available. The sensitivity test modelling showed that there would be an additional 393 PCUs using this route (241 on the link road and 152 from J24), with 2,073 PCUs in total. c. MC referred to an email from SHi who set out various design issues with proposing two lanes on the new free flow link, which has been shared with the TWG and will need taking into account. d. GN said that the merge is operating close to its theoretical capacity which is having an impact on route choice. The downstream merge with the A50 is having an impact on approximately 400 PCUs. There may be a requirement for another departure from standard but this needs consideration within the design work especially if there are higher design flows. However, all the latest information issued by BWB will be responded to within a single technical note with recommendations/next steps etc. e. AD said that AECOM responded to the five questions raised by NH and asked whether those had been received. GN confirmed they have. f. MC said that the Stage 2B PRTM forecasting report has been shared and is available for the TWG to review. However, any changes to furnessing and modelling for Stage 2A will be replicated within Stage 2B for consistency.	**NCountyC** **NH**
5	**PRTM 2023** a. MC said that a quote has been received from AECOM to carry out the PRTM 2019 and 2023 flow comparison. MC asked for LCountyC's thoughts on this initial step. b. HH said that the Transport Assessment includes a commitment to modelling in PRTM 2023. Undertaking the initial sensitivity test seems to be a deviation away from running PRTM 2023. c. MC said that BWB are committed to running PRTM 2023 but initially would like to understand whether there is a difference in flows that could have an influence on the current PRTM 2019 modelling work and mitigation design. d. HH said that whilst this initial task will show the difference in link flows, this is one aspect of the modelling and LCountyC have a desire to see an assessment within PRTM 2023 and for the Transport Assessment to commit to this.	

	e. MC said that if the TWG deems it fundamental for PRTM 2023 to be used, then this modelling will be undertaken. This initial exercise should give us an initial understanding as to whether there are likely to be any changes to the current modelling and conclusions regarding the overall mitigation strategy. This can be formally tested through PRTM 2023 as part of the evidence base. f. MC confirmed the current plan is to model the Stage 2A scenarios in PRTM 2023 only as a sense check that the benefits of the mitigation are replicated in PRTM 2023 rather than re-visiting all scenarios. g. HH said that LCountyC have picked up on disparities in the access strategy modelled in Stage 1A and 2A scenarios in PRTM 2019 and there is a concern that we're not comparing like for like scenarios. There is an additional flare on the A453 and Toucan crossing modelled in Stage 2A. If Stage 2A is only modelled in PRTM 2023 then this inconsistency remains. h. MC view was that the Toucan crossing was included in both Stage 1A and 2A. Whilst the A453 flare was introduced later in Stage 2A, this was due to how the modelling progressed during various iterations. AD said that AECOM will check this within the PRTM modelling. i. HH said that the infrastructure proposed to deliver the access strategy should be included in the with development scenarios, with off-site highway mitigation then tested separately. j. GN asked what the implications are if the Toucan and flare were excluded from the Stage 1A modelling? k. MC said that Segro have committed to delivering all off-site infrastructure prior to occupying any part of the scheme so the infrastructure will be in place at the beginning, whether that is access infrastructure or mitigation. l. HH said that its is recommended that PRTM 2023 is run sooner rather than later for all scenarios so that when we get to Examination the evidence base is available and can be presented to an Inspector. This would carry a lot of weight so it is recommended this is fed back to the Client team. m. MC said that he would take this away and liaise with colleagues and the Client team. However, we are working through the iterative process of finalising the modelling and mitigation in PRTM 2019. The recent information issued with new furnessed flows and VISSIM modelling needs agreeing first, otherwise this could have a knock on effect on the mitigation strategy. There is a risk that if we commence the PRTM 2023 modelling now then this could lead to abortive work if the mitigation changes. n. HH said that if BWB are confident that PRTM 2023 has lower flows	**AECOM** **BWB**

	compared to PRTM 2019 and the mitigation is suitable, then the issue with PCU flows along the M1 NB to A50 WB merge may not be resolved.	
	o. MC acknowledged this and said that there is no right or wrong order but it is important that workstreams are commissioned logically and in the most efficient order that avoids abortive work and allows us to finalise the mitigation with the correct evidence base. However, this is something for BWB to consider and report back on.	**BWB**
	p. MC asked AD about resourcing levels and when AECOM could start the PRTM 2023 modelling work. AD said that AECOM are available to start when needed. However, we need to be mindful that planning data assumptions have changed and so updates to this will need to be built into the PRTM 2023 work.	
	q. HH said that the trip generation aspect also needs considering in terms of whether the full quantum of development, including the additional mezzanine floorspace, is tested should an agreement on the legal wording for the DCO not be reached.	
	r. MC said that the use of the mezzanine floorspace and wording for the DCO is under discussion between legal parties within the client team and NH. However, the use of the mezzanine floorspace will be for storage and racking systems rather than space for more people to operate within and so the previous information remains.	
	s. HH acknowledged this but said there is an opportunity to simply model the full quantum of development in PRTM 2023 that satisfies other issues that have come to light since the original modelling was commissioned. A balance is needed on the overall risks during the Examination process.	
	t. GN referred back to earlier conversations on the Toucan crossing and A453. The Stage 1A PRTM forecasting report includes these details on the access drawing at Figure 1.2. HH said that it doesn't mean these were modelled and for this to be checked.	**AECOM/BWB**
	u. GN said that it looks as though PRTM 2023 will need commissioning for all scenarios including Stages 1 and 2. MC said that this will be discussed with the Client team and can be commissioned if it will be of benefit to everyone.	**BWB**
6	**Construction traffic PRTM forecasting report**	
	a. MC said that the PRTM construction traffic forecasting report was issued to the TWG on 14/07/25. This considered the impact of the construction traffic and concluded that there are very little changes in the performance and capacity levels of the network and hence no need for any mitigation.	
	b. MC said that these details have been included in a revised version of	

	the Transport Assessment which will be submitted with the DCO. However, we welcome any comments on the PRTM forecasting report beforehand.	
7	**Standalone junction modelling** a. MC said that all updated Junctions 11 and LinSig models were shared with the TWG last week. The results are documented in the Transport Assessment and consider both Stages 1A/2A and 1B/2B. There is no further mitigation proposed at any of these standalone junction locations and the Transport Assessment concludes that either there is spare capacity in the forecast years, with EMG2 development in place, or no severe impacts from the EMG2 development. b. GN said the models have been received and will be reviewed but this will take weeks. c. MC asked whether NCountyC have seen the modeling results of the two junctions on the A453 Remembrance Way and how they intend to review/comment. DS said that as it stands the impacts of the EMG2 development appear small and there is no need for any mitigation but if the position changes on the back of the additional work being undertaken then NCountyC would need to revisit their review. d. MC asked for LCountyC position on the standalone modelling, appreciating that base models have not been reviewed, although NH carried out a full review of all base models. e. HH said that LCountyC are looking at the base Junctions 11 and LinSig models now. f. MC asked if it is worthwhile BWB sharing the emails from NH when they carried out their original review of the base models so colleagues at LCountyC can understand the process undertaken thus far. AW said this will be useful.	**NH/LCountyC/ NCountyC** **BWB**
8	**AOB** a. MC asked if anyone had AOB. No further comments received.	

APPENDIX 21: Overview of Works on the Strategic Road Network (drawing reference EMG2-BWB-GEN-XX-SK-CH-SK045_S2-P04)





Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

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Legend

- DRAFT order limits EMG2 DCO
- Works related to the strategic road network
- Highway capacity and access works related to the local road network
- Active travel works

ISSUES & REVISIONS

Rev	Date	Details of issue / revision	Drw	Rev
P01	30.05.25	Issued for information	SRH	SRH
P02	30.05.25	Active travel works shown	SRH	SRH
P03	11.06.25	M1 J24 works amended	SRH	SRH
P04	11.07.25	EMG2 access updated	SRH	SRH
P05	28.07.25	EMG2 access updated	SRH	SRH

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Client: SEGRO

Project Title: **EAST MIDLANDS GATEWAY 2 (EMG2)**

Drawing Title: **OVERVIEW OF WORKS ON THE STRATEGIC AND LOCAL ROAD NETWORKS**

Drawn:	S. Hilditch		Reviewed:	S.Hilditch		
BWB Ref:	220500	Date:	30.05.25	Scale@A1:	1:10,000	

Drawing Status: **FOR INFORMATION**

Project - Originator - Zone - Level - Type - Role - Number: **EMG2-BWB-GEN-XX-SK-CH-SK045**

Status: **S2**

Rev: **P05**

APPENDIX 22: Highway boundary information

N

Not To Scale

CASTLE DONINGTON

Hemington

Recreation Ground

Castle Donington Community College

Allotment Gardens

Hemington Hill

Daphnes Orchard (Camp Site)

Balancing Pond

Aeropark (Aviation Museum)

East Midlands Airport

Hill Top

Hill Top Farm

Play Area

Sports Court

L76 L77 L82 L80 L78 L79 L106 L111 L57 L16 L85 L42 L87 L94 L95 L92 L105

Key

Highway Status

Extents

- Adopted: Classified Route
- Adopted: Unclassified Route
- Proposed Adoption Agreement
- Requires Further Investigation
- Non-Highway Land (LCC Responsibility)

Public Rights of Way

- Footpath
- Bridleway

Leicestershire County Council

ENVIRONMENT AND TRANSPORT DEPARTMENT

On Behalf Of
Ann Carruthers, Director

Highway Record Enquiry

Location

Area surrounding East Midlands Airport

Reference	NDI/HRE/2405118
Drawing No.	100/A
Date Produced	02/07/2024

Highway Record Enquiries
County Hall, Glenfield, LE3 8RJ
0116 305 7189 | hre@leics.gov.uk

NOTES
The highway records are not definitive, but are based on currently available supporting information and are given without warranty. If roadside ditches are present, the legal presumption without evidence to the contrary is that these do not generally form part of the publicly maintainable highway. This plan has been produced in response to the enquiry shown in the title address and should not be used for any other purpose, since its accuracy cannot be guaranteed. If a scale has been provided, measurements scaled from this plan may not match measurements between the same points on the ground.

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N
Not To Scale
L76
L77
Path (unm)
L75
L58
L106
L103
L111
L112
L82
L79
L45a
L45b
L45
Daphnes Orchard (Camp Site)
Dalecarre Hill
Post Office Farm
St Nicholas's Church
Vicarage
Church Street
Hall Farm
The Courtyard
Dale Acre Barns
Dalecarre Court
Dalecarre House
Tennis Court
Lodge Barn
Hemington Hall
Church House
Hemington House Farm
Pegs Farm
Ambler Lodge
East Ridge
Dalecarre
Church Lane
CHURCH LANE
The Dumps
Balancing Pond
Drain
King Street Plantation
Lime Kiln
Tanks
Electricity Distribution Site
Mere Bdy
Sports Court
WILDERS WAY
Shelter
El Sub Station
ESSa
ESSb
ESS
Sub Stn
Shelters
Pylon
Mast (Telecommunication)
East Midlands Airport Hotel
Gas Valve
REMEMBRANCE WAY
Gantry
Flood Reception Lagoon
Factory
Computer Centre
Pond
Tanks
Tank
Oil
Def
Runway Approach Lights
Wide Hill Farm
Ponds
Broad Hill
Kenilworth House
ASHBY ROAD
Ashby Rd
Ashby Road
The Orchard
Ashby Road Cottages
Ashby Road Bungalows
Ashby Road Close
Ashby Road Drive
Ashby Road Gardens
Ashby Road Mews
Ashby Road Terrace
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N

Not To Scale

Key

Highway Status

Extents

- Adopted: Classified Route
- Adopted: Unclassified Route
- Trunk Road (National Highways)
- Non-Highway Land (LCC Responsibility)

Public Rights of Way

- Footpath

Leicestershire County Council

ENVIRONMENT AND TRANSPORT DEPARTMENT

On Behalf Of
Ann Carruthers, Director

Highway Record Enquiry

Location

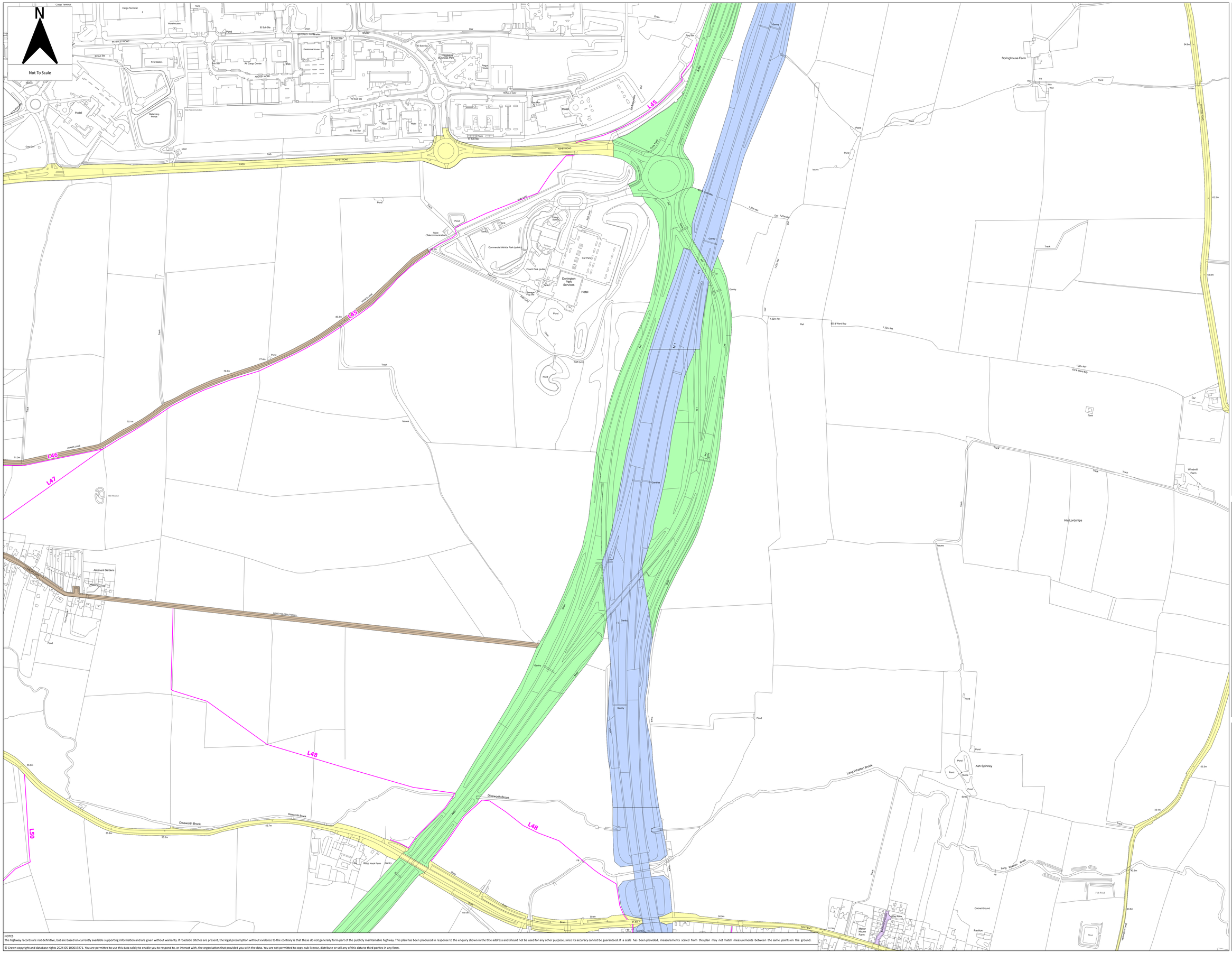
Area surrounding East Midlands Airport

Reference	NDI/HRE/2405118
Drawing No.	102/A
Date Produced	02/07/2024

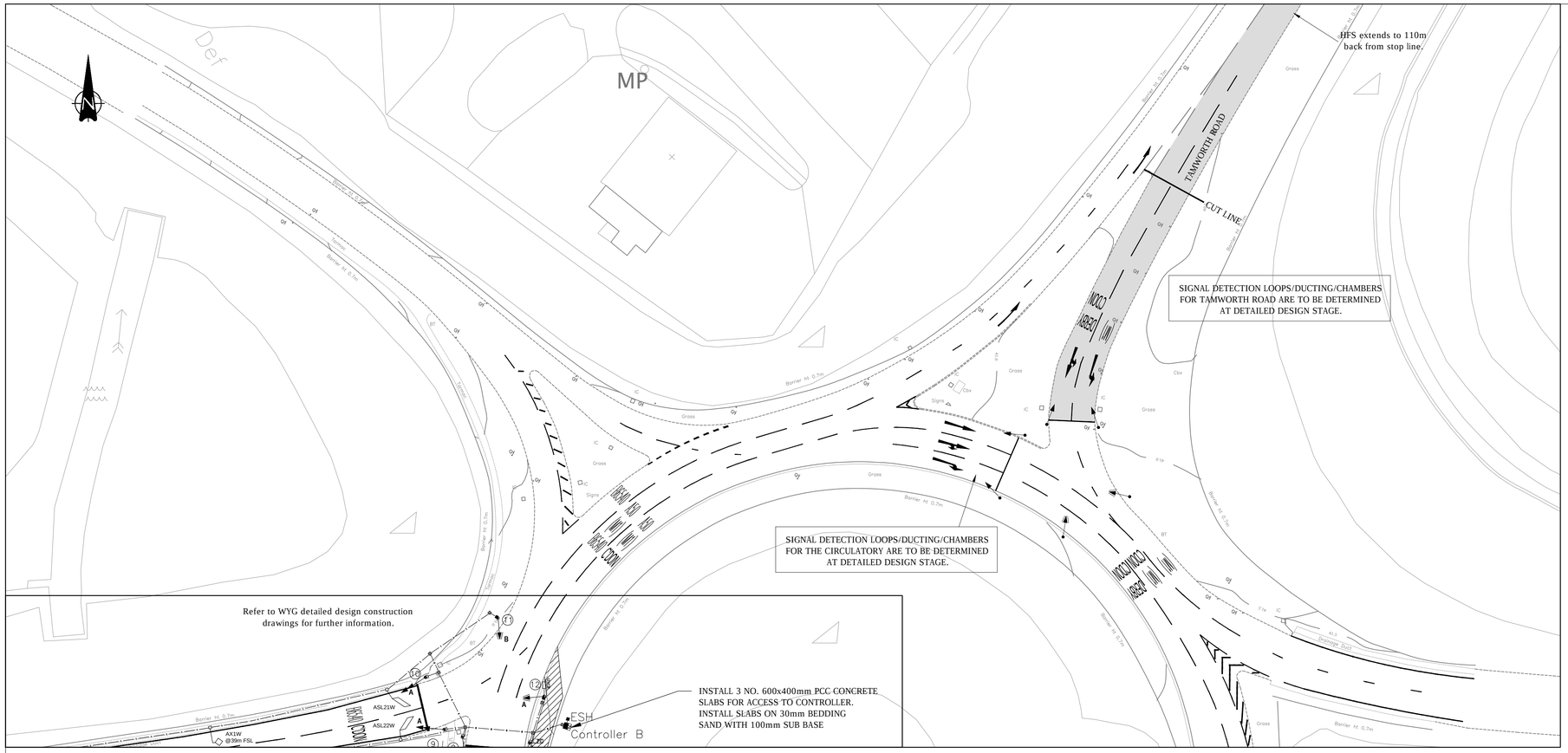
Highway Record Enquiries
County Hall, Glenfield, LE3 8RJ
0116 305 7189 | hre@leics.gov.uk

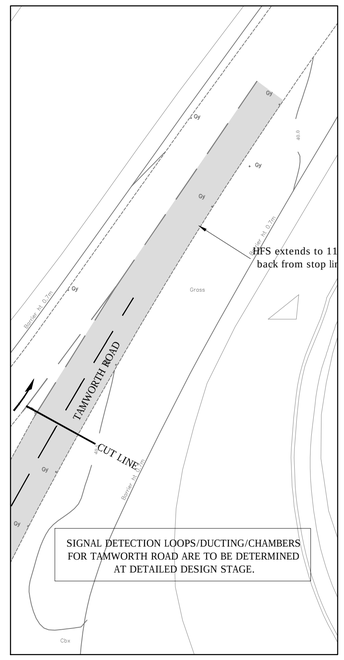
NOTES
The highway records are not definitive, but are based on currently available supporting information and are given without warranty. If roadside ditches are present, the legal presumption without evidence to the contrary is that these do not generally form part of the publicly maintainable highway. This plan has been produced in response to the enquiry shown in the title address and should not be used for any other purpose, since its accuracy cannot be guaranteed. If a scale has been provided, measurements scaled from this plan may not match measurements between the same points on the ground.

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N
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L45
L46
L47
L48
L59
A453
A42
M1
ASHBY ROAD
BEVERLEY ROAD
WIGGIN ROAD
LONG HOLDEN (TRACK)
WHEATLEY LANE
Diseworth Brook
Long Whatton Brook
Donington Park Services
Hotel
Springhouse Farm
Ash Spinney
Windmill Farm
His Lordships
Manor House Farm
Cricket Ground
Pavilion
Allotment Gardens
Wood Nook Farm
Commercial Vehicle Park (public)
Coach Park (public)
Car Park
Cargo Terminal
Air Cargo Centre
Fire Station
Pembroke House
Regus House
Pegasus Business Park
Balancing Ponds
Warehouses
Tank
Pond
Track
Footpath
Gantries
Mast (Telecommunications)
Sewage Pig Site
Fish Pond
Mill Mound
Moat
Pavilion
Cricket Ground
Ash Spinney
Windmill Farm
His Lordships
Manor House Farm
Wood Nook Farm
The Paddocks
Allotment Gardens
Donington Park Services
Hotel
Springhouse Farm
Ash Spinney
Windmill Farm
His Lordships
Manor House Farm
Wood Nook Farm
Cricket Ground
Pavilion
Fish Pond
Moat
Mill Mound
Sewage Pig Site
Commercial Vehicle Park (public)
Coach Park (public)
Car Park
Tank
Pond
Track
Footpath
Gantries
Mast (Telecommunications)

APPENDIX 23: A50 Junction 1 approved signalisation scheme





Key:

- OS Mapping
- White Young Green Proposals
- Waterman Boreham Proposals
- Waterman Boreham proposed High Friction Surfacing

Notes:

1) All works shown BLACK on the drawing have been submitted to LA for technical approval by White Young Green. Refer to WYG detailed design drawing A060910-35-12/001 General Arrangement and related drawings for further information.

2) All works shown RED on the drawing indicate Waterman Boreham proposals.

3) As stated on the drawing all signal loops/ducting/chambers for Station Road/Tamworth Road and the circulatory carriageway will be determined and detailed design stage.

Rev	Date	Description	By
E	06.03.12	Amended in accordance with Highways Agency comments 23rd February 2012	HS
D	30.01.12	Amended following RSA 1/2.	CD
C	18:01:12	Amended following LCC comments dated 17.01.12.	CD
B	12:01:12	Amended following LCC comments.	CD
A	20:12:11	Amended to show proposals only.	CD

Amendments

Project
Park Lane, Castle Donington.

Title
Proposed signalisation of Tamworth Road and Station Road approaches at the A50 Sawley Interchange.

Client
Clowes Development Ltd and Miller Homes Ltd.

Waterman Boreham
Transport Planning

2nd Floor South Central 11 Peter Street Manchester M2 5QR
t 0161 839 8392 f 0161 839 8394
enquires@waterman-boreham.com www.waterman-boreham.com

Drawing Status
PRELIMINARY

Designed by	NJH	Checked by	NJH
Drawn by	CD	Date	15.11.11
Scales @ A1 work to figured dimensions only	500		

Project No 218012
Computer File No 218012-Q-014

Publisher	Zone	Category	Number	Revision
WB	SA	95	014	E

File Path: R:\Projects\218000 Castle Donington Relief Road, Derbyshire\218012 Castle Donington\DWGS\

A060910-35-18-006 & 007-E-TRAFFIC SIGNALS_cd_OLD NEW COMBO, A1-W-SingleContract

APPENDIX 24: Walking, Cycling and Horse-Riding Assessment & Review - Review Report (document reference EMG2-BWB-GEN-XX-RP-CH-0018_S4-P01)

A CAF GROUP COMPANY

TRANSPORT AND INFRASTRUCTURE

SEGRO
East Midlands Gateway 2 (EMG2)
Walking, Cycling, Horse-riding Assessment and Review (WCHAR)
Preliminary design stage – review report

www.bwbconsulting.com

DOCUMENT ISSUE RECORD

Document Number:	EMG2-BWB-GEN-XX-RP-CH-0018
BWB Reference:	220500

Revision	Date of Issue	Status	Author:	Checked:	Approved:
P01	20.06.2025	S4	Simon Hilditch MEng (Hons) CEng MICE MCIHT	Darren Ball BSc(Hons) IEng MICE	Simon Hilditch MEng (Hons) CEng MICE MCIHT

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CONTENTS

1. INTRODUCTION 1
Instruction 1
Objectives 1
2. BACKGROUND AND HIGHWAY TEAM DESCRIPTION 2
Background 2
Proposed highway scheme 2
Review team 3
Preceding assessment and review 3
WCHAR study area 4
Stakeholder engagement and site visits 4
3. REVIEW OF WCHAR ASSESSMENT OPPORTUNITIES 5
4. PRELIMINARY DESIGN STAGE REVIEW OPPORTUNITIES 8
5. WALKING, CYCLING & HORSE RIDING REVIEW TEAM STATEMENT 10

1. INTRODUCTION

Instruction

1.1 BWB Consulting Ltd has been commissioned by Segro (the client) to undertake the highway design for the proposed East Midland Gateway 2 (EMG2) scheme.

1.2 The scheme is to provide primary access to the proposed EMG2 development and changes to the surrounding strategic and local road networks to serve and support the predicted increased traffic to the development.

1.3 A general site location plan is shown at **Figure 1** below.

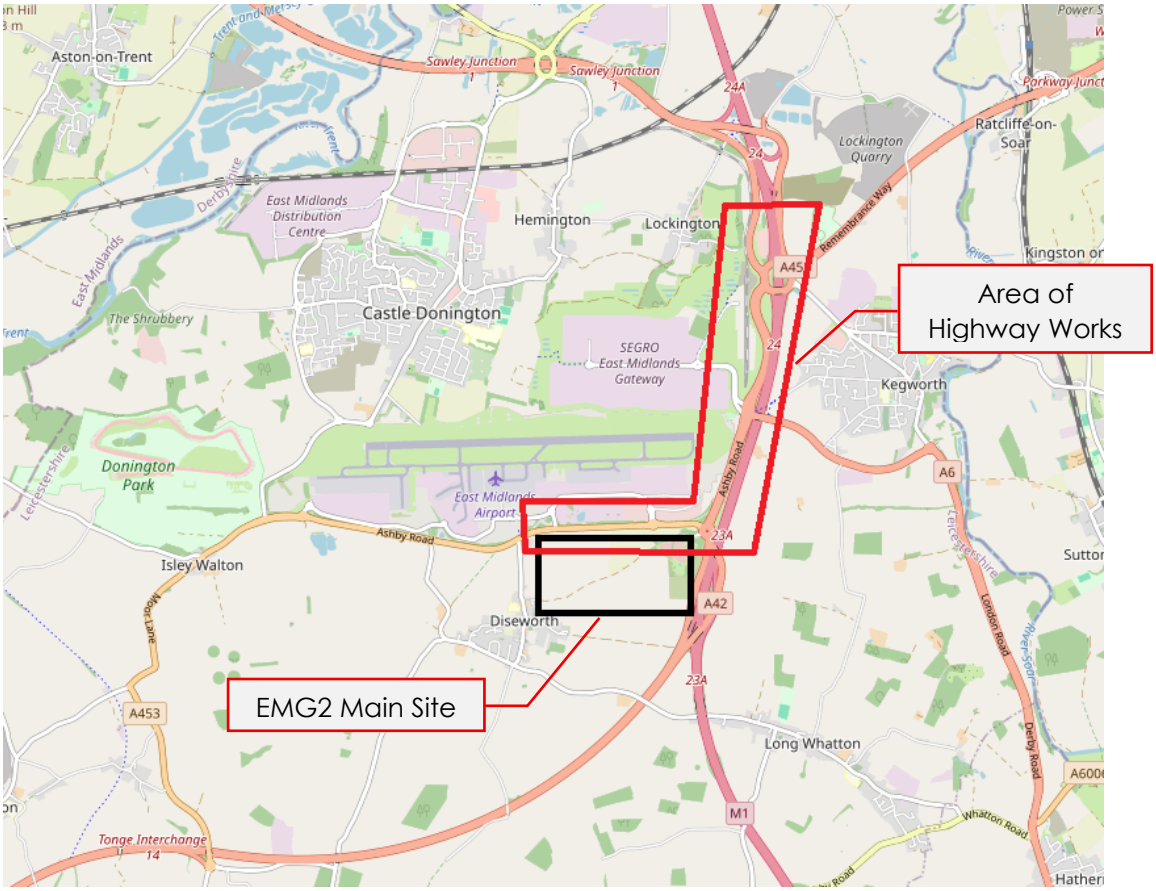


Figure 1: scheme location (Map data from OpenStreetMap : https://www.openstreetmap.org/copyright)

Objectives

1.4 This Report results from a Walking, Cycling & Horse-riding assessment and review (WCHAR) preliminary design stage Review undertaken for the Scheme and has been undertaken in accordance with DMRB GG 142 "Walking, Cycling & Horse-riding Assessment and Review".

2. BACKGROUND AND HIGHWAY TEAM DESCRIPTION

Background

2.1 At the Assessment stage the scheme was judged to be a **large highway scheme**. This is confirmed with reference to GG142 tables 2.2.1 and 2.2.1N and therefore reviews are to be undertaken at both preliminary and detail design stages.

2.2 This Review, at the preliminary design stage, has been undertaken concurrently with the preliminary design and has been carried out in accordance with GG 142 "Walking, Cycling & Horse-riding Assessment and Review".

2.3 The existing highway layout affected by the works comprise:

- M1 Junction 24 signalised roundabout which connects to the A453, M1 and local roads to Kegworth and Lockington;
- M1 southbound/A50 eastbound link to junction 24;
- A50 westbound exit from junction 24;
- A453 / A6 / EMG1 signalised site access junction;
- A453 corridor from the Finger Farm roundabout to the Hunter Road roundabout inclusive;
- A453 East Midlands Airport (EMA) signalised access junction;
- Hyam's Lane (unclassified dead-end country lane with gravel surface); and
- Long Holden (unclassified dead-end country lane with gravel surface).

Proposed highway scheme

2.4 A package of highway works is proposed including: a new primary development access; substantial improvements around J24 of the M1; minor works on the local highways network; and pedestrian/cycle route enhancements.

2.5 A more detailed breakdown of these works is listed below and are shown diagrammatically on the components of the proposed development plan (Document DCO 2.7 & MCO 2.7):

- J24 Improvements comprising:
  - Works to the M1 northbound (DCO Works No. 8);
  - Construction of link road from the M1 northbound to the A50 westbound (DCO Works No. 9);
  - Works to the A50 westbound (DCO Works No. 10);
  - Works to the link road from the M1 southbound and A50 eastbound to M1 Junction 24 (DCO Works No. 11);
  - Works to the west side of the M1 Junction 24 roundabout and A453 northbound approach (DCO Works No. 12a); and
  - Works to the east side of the M1 Junction 24 roundabout and A453 southbound approach (DCO Works No. 12b).

- EMG1 Access Improvements comprising:
  - Signalised pedestrian crossing at the EMG1 exit road (MCO Works No. 8A); and
  - Capacity improvements (DCO Works No. 13).
- Finger Farm roundabout improvements (DCO Works No. 18)
- Active Travel works comprising:
  - Active Travel Link between EMG1 and EMA/EMG2 (DCO Works No. 14) ;
  - Hyam's Lane Works (DCO Works No. 7) ;
  - A453/East Midlands Airport (EMA) junction uncontrolled crossing (DCO Works No. 15);
  - Long Holden works (DCO Works No. 17); and
  - L57 footpath upgrade (DCO Works No. 19).

2.6 For the purposes of providing a comprehensive approach to walking, cycling and horse-riding assessment and review, the highway works are considered to include the main estate road and other publicly accessible infrastructure within both the existing EMG1 and the proposed EMG2 main site.

2.7 The preliminary design scheme drawings have been reviewed to:

- Ensure that previously identified opportunities at the assessment phase have been taken into account and implemented where achievable; and
- Identify opportunities for improvement for pedestrians, cyclists and equestrians as a result of the developing highway scheme design.

2.8 The following Scheme drawings have been reviewed:

Drawing	Title	Revision
EMG2-BWB-HGN-XX-DR-H-0101	EMG2 Highway Plan GA Sheet 1	P05
EMG2-BWB-HGN-XX-DR-H-0102	EMG2 Highway Plan GA Sheet 2	P05
EMG2-BWB-HGN-XX-DR-H-0103	EMG2 Highway Plan GA Sheet 3	P05

Review team

2.9 The Review team consists of:

Role	Organisation	Contact name	Email	Phone
Lead Assessor	BWB Consulting	Simon Hilditch	simon.hilditch@bwbconsulting.com	0115 924 1100
Design Team Leader and Assessor	BWB Consulting	Darren Ball	darren.ball@bwbconsulting.com	0115 924 1100

Preceding assessment and review

2.10 The WCHAR Assessment report was issued in March 2025 with minor updates in May 2025 in accordance with GG 142 "Walking, Cycling & Horse-riding Assessment and Review". The WCHAR Assessment is therefore up to date.

WCHAR study area

2.11 The study area is shown at **Figure 2** below and is considered to be correct for the scheme.

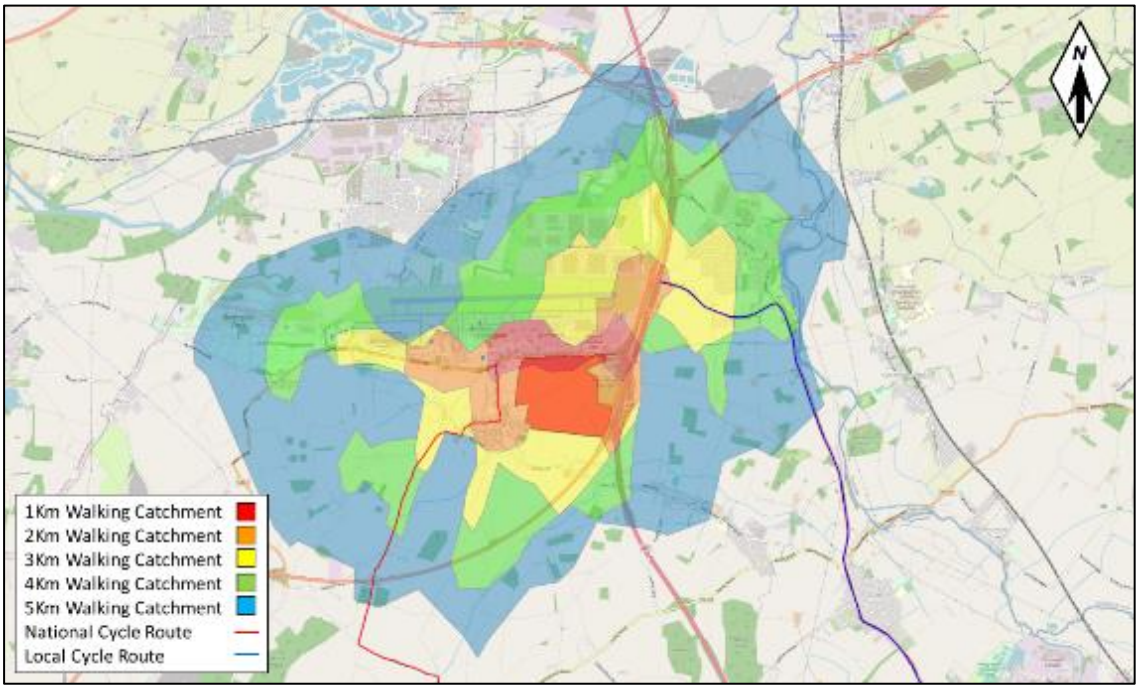


Figure 2 – WCHAR study area

Stakeholder engagement and site visits

2.12 The design proposals have been discussed with both National Highways (NH) and Leicestershire County Council (LCC) as local highway authority. Both authorities will be further consulted with throughout the preliminary and detailed design stages.

2.13 As discussed in the WCHAR Assessment public consultation was undertaken during February and March 2025 which has helped inform the opportunities. Further consultation is to take place during June and July 2025.

2.14 Site visits have been undertaken as set out in the WCHAR Assessment.

3. REVIEW OF WCHAR ASSESSMENT OPPORTUNITIES

3.1 This section provides a summary of the opportunities identified as part of the Assessment report together with the actions taken and outcomes. They are provided verbatim from the assessment report. Note that the opportunity references are amended to enable additional opportunities to be added during the review stages, the original references in the Assessment report are shown in brackets.

3.2 To assist the key stakeholders in reviewing this document the location of the opportunity and which highway authority(ies) it affects has been included.

Opportunity		Location / Highway authority	Actions taken / outcomes
	General opportunities		
G1 (1)	Consider the provision of a shared footway /cycleway within the [EMG2 Main] site.	EMG2 main site: private	**Outcome**: the scheme provides a shared use footway/cycleway along the spine road of the EMG2 main site and this connects into the proposals for Hyam's Lane (opportunity S1).
G2 (2)	Consider providing a footway/cycleway along the western side of the A453 to provide a connection between EMG2 and EMG1 which would provide wider connectivity between the surrounding areas such as EMA and Kegworth	A453 corridor: NH (part) & LCC (part)	**Outcome**: the scheme will provide a new cycle track on the western side of the A453 from the EMG1 access junction, south to the A453 Finger Farm roundabout and then to the A453 Hunter Road roundabout. It will utilise former A453 road alignments where available but will need to go into land outside of the current or former road alignments in the vicinity of the northbound lay-by.
G3 (3)	Consider providing appropriate pedestrian and cyclist crossing facilities along the access roads within [the] EMG2 [Main site] to provide safe crossing opportunities	EMG2 main site: private infrastructure	**Future Action**: as the EMG2 main site road layout is illustrative at this stage this is to be further reviewed at the detailed design stage. However, we see no reason as to why this objective cannot be achieved.
G4 (4)	Consider providing appropriate pedestrian and cyclist crossing points on the A453 at the EMA junction and to east of the proposed site access, to enhance connectivity to EMG1 and EMA to provide a safe crossing facility for pedestrians and cyclists	A453 corridor: LCC	**Outcome**: the scheme provides an uncontrolled crossing at the EMA signalised junction which is to connect the new leisure route within EMG2. **Outcome**: the scheme provides a controlled (toucan) crossing between the A453 Hunter Road roundabout and the Finger farm roundabout, which connects to the route to EMG1 (opportunity G2)
G5 (5)	Consider upgrading Footpath Link 57 to connect Castle Donington to EMG1 and then onto EMG2 via EMG1 and the new A453 link	L57 footpath: LCC	**Outcome**: an upgrade of this footpath to a cycle track (for use by pedestrians and cyclists) is included in the scheme

Opportunity		Location / Highway authority	Actions taken / outcomes
	Strategic opportunities		
S1 (6)	Consideration should be given to ensuring that the proposals take into consideration the existing PROWs including Hyam's Lane and National and local cycle links and how the development proposals can tie into them to enhance connectivity to Long Holden	Various local roads and PROW: LCC	**Outcome**: the scheme retains Hyam's Lane which will be upgraded to become a cycle corridor connecting Diseworth to the A453 at the Hunter Road roundabout (and then to Kegworth via the new infrastructure identified at opportunity G2) **Outcome**: the scheme will enhance the PROW network around the EMG2 main site by (a) providing a new PROW between the A453 EMA access junction, Hyam's Lane and Long Holden along the western boundary of the EMG2 main site; and (b) a new PROW along the eastern boundary of the EMG2 main site between Hyam's Lane and Long Holden
S2 (7)	Consideration should be given to making Hyam's Lane part of NCN15 and then extending the link through the site, up the A453 to EMG1 and to Kegworth (see opportunity 2)	Hyam's Lane: LCC A453 corridor: NH (part) & LCC (part)	**Future Action**: this is agreed in principle but signage is a detailed design matter so this will be reviewed further at the detailed design stage.
S3 (8)	Consideration should be given to whether any improvements could be made to the pedestrian / cycle routes south from Diseworth that would provide a shorter connection to Loughborough for employees (as well as benefits for residents).	Various local roads: LCC	**Outcome**: this has been reviewed as part of the overall sustainable transport assessment for the EMG2 scheme which concluded that there is no justification for this to form part of the EMG2 scheme
	Pedestrian specific opportunities		
P1 (9)	Consider how wider connectivity of Hyam's Lane (which is being retained within the site) can be enhanced, this could include: - Additional south-easterly connection from Hyam's Lane to the Country Park (adjacent to the Moto Donington Services). - an additional northerly connection from Hyam's Lane to the proposed EMG2 Bus Interchange. - an additional southerly connection from Hyam's Lane to Long Holden, this connection provides access directly into the EMG2 estate	Various local roads and PROW: LCC	**Outcome**: following consultation with Moto, a connection into the rear of their site is not possible due to security requirements for motorway service areas **Outcome**: Hyam's Lane is to be connected by a new shared use footway/cycleway to the A453 Hunter Road roundabout via the bus interchange **Outcome**: new PROW between Hyam's Lane and Long Holden are to be provided east and west of the EMG2 main site

Opportunity		Location / Highway authority	Actions taken / outcomes
	Cyclist specific opportunities		
C1 (10)	Consider whether existing footways in the vicinity of the [EMG2 main] site can be upgraded to shared cycleway / footways to enhance connectivity.	Various local roads: LCC	**Outcome**: Hyam's Lane is to be upgraded to a cycle track for pedestrians and cyclists, extended to the A453 Hunter Road roundabout and north of there a new cycle track provided to the EMG1 junction alongside the A453. Elsewhere there are no other identified footways within the vicinity of the EMG2 main site that would merit upgrading for use by cyclists.
	Equestrian specific opportunities		
	None identified		

4. PRELIMINARY DESIGN STAGE REVIEW OPPORTUNITIES

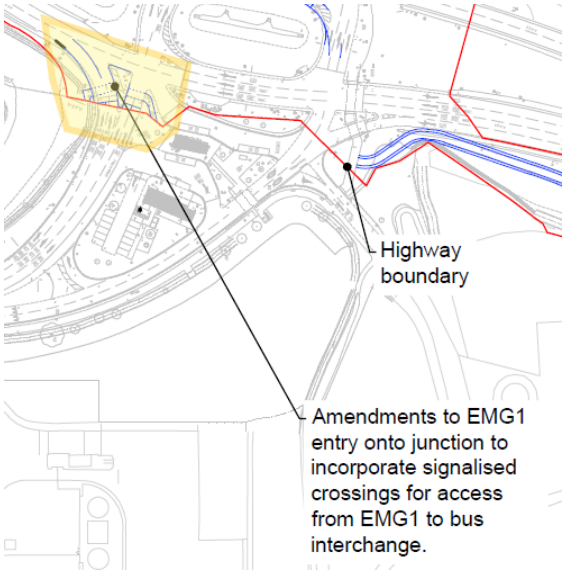
4.1 This section documents any user related opportunities identified during the preliminary design phase. They have been developed through discussions between the Lead Assessor and the wider design team and recorded here along with actions taken / outcomes. The numbering is a continuation of the numbers used at the assessment stage.

Opportunity		Location / Highway authority	Actions taken / outcomes
	General opportunities		
G6	Improve the environment of Long Holden and reduce the risk of anti-social behaviour and parking	Long Holden and PROW: LCC	**Action taken**: all-purpose road status is proposed to be removed and it is proposed to be designated as a public bridleway. Gated access is proposed for walkers, cyclists and horse-riders for public use along with private use for access to adjoining land.
	Strategic opportunities		
	No further opportunities identified		
	Pedestrian specific opportunities		
P2	As part of the EMG1 Works provide an opportunity for pedestrians to be safely dropped of at the EMG1 exit to then access the bus interchange	EMG1 estate roads: Private A453: NH	**Outcome**: this is included in the scheme design
	Cyclist specific opportunities		
	No further opportunities identified		
	Equestrian specific opportunities		
E1	There is an opportunity to provide a loop for equestrians on the eastern side of Diseworth using Long Holden, Hyam's Lane and the new PROW connecting the two. (This directly addresses public feedback received during the consultation).	Various local roads and PROW: LCC	**Action taken**: a bridleway connection is proposed on the western side of the EMG main site between Long Holden and Hyam's Lane.

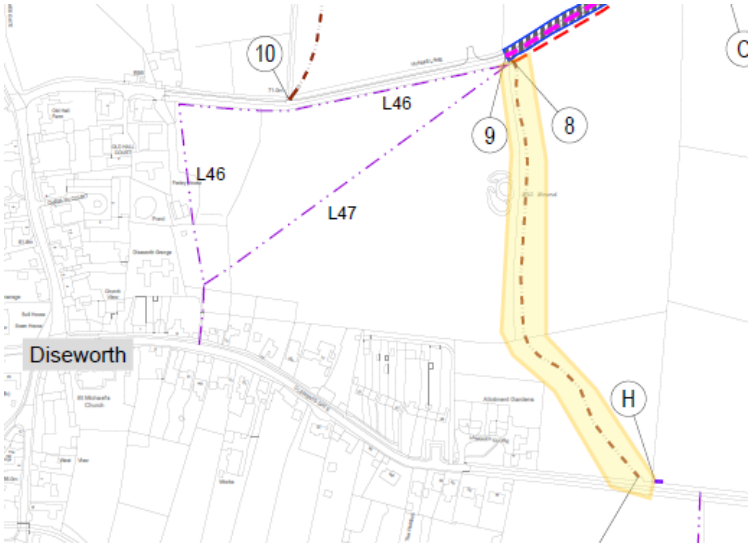
General Opportunity G6 (image courtesy of Google)



Pedestrian Opportunity P2



Equestrian Opportunity E1



5. WALKING, CYCLING & HORSE RIDING REVIEW TEAM STATEMENT

5.1 As Lead Assessor, I confirm that this walking, cycling and horse-riding review report has been compiled in accordance with DMRB GG 142 and thus records all design team deliberations and decisions relating to walking, cycling and horse-riding issues and opportunities. The walking, cycling and horse-riding review was undertaken by the following team:

Name:	Simon Hilditch
Position:	Lead Assessor
Organisation:	BWB Consulting Ltd
Signed & Dated:	

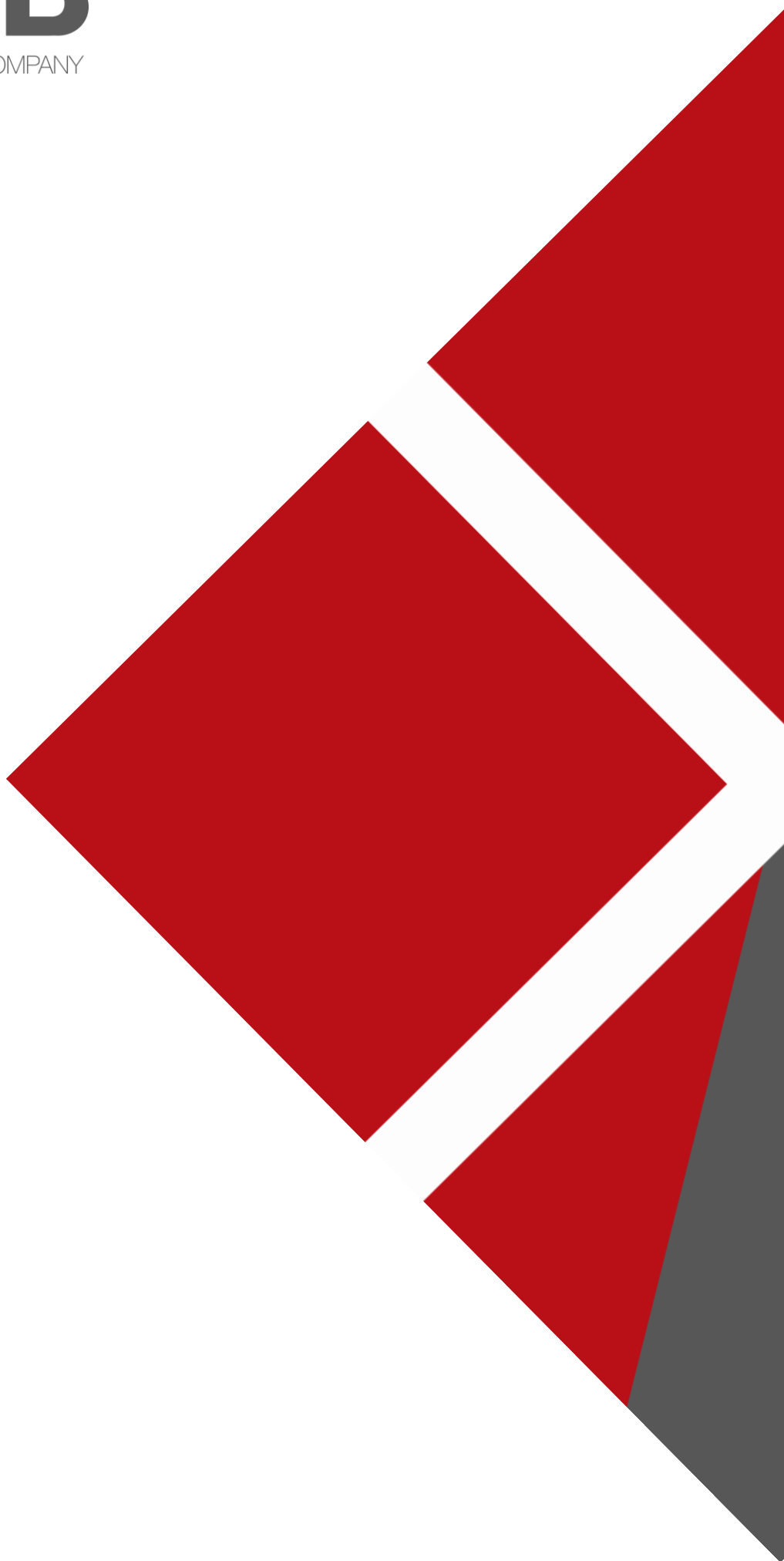
Name:	Darren Ball
Position:	Design team leader and Assessor
Organisation:	BWB Consulting Ltd

5.2 As design team leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development. I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in DMRB GG 142.

Name:	Darren Ball
Position:	Design Team Leader
Organisation:	BWB Consulting Ltd
Signed & Dated:	

BWB

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APPENDIX 25: BREAAM Accessibility Index Calculator (existing site)

BREEAM 2018 Tra01/02 Accessibility Index calculator

BREEAM® UK delivered by bre

Using the drop down boxes make the relevant selections and press the 'Select' button

Building type: Offices/Industrial

No. nodes required: 2

Select

NODE 1

Public transport type	Bus
Distance to node (m)	500

	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	4	2	3	1	2					

NODE 2

Public transport type	Bus
Distance to node (m)	

	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour										

Accessibility Index	4.41