

# NEWGATE LANE EAST – HIGHWAY COMMENTS RESPONSE REVIEW



## TECHNICAL NOTE

### IDENTIFICATION TABLE

<b>Client/Project owner</b>	Hampshire County Council
<b>Project</b>	Newgate Lane East – Planning Reference (P/22/0165/OA)
<b>Title of Document</b>	Newgate Lane East – Highway Comments Response Review
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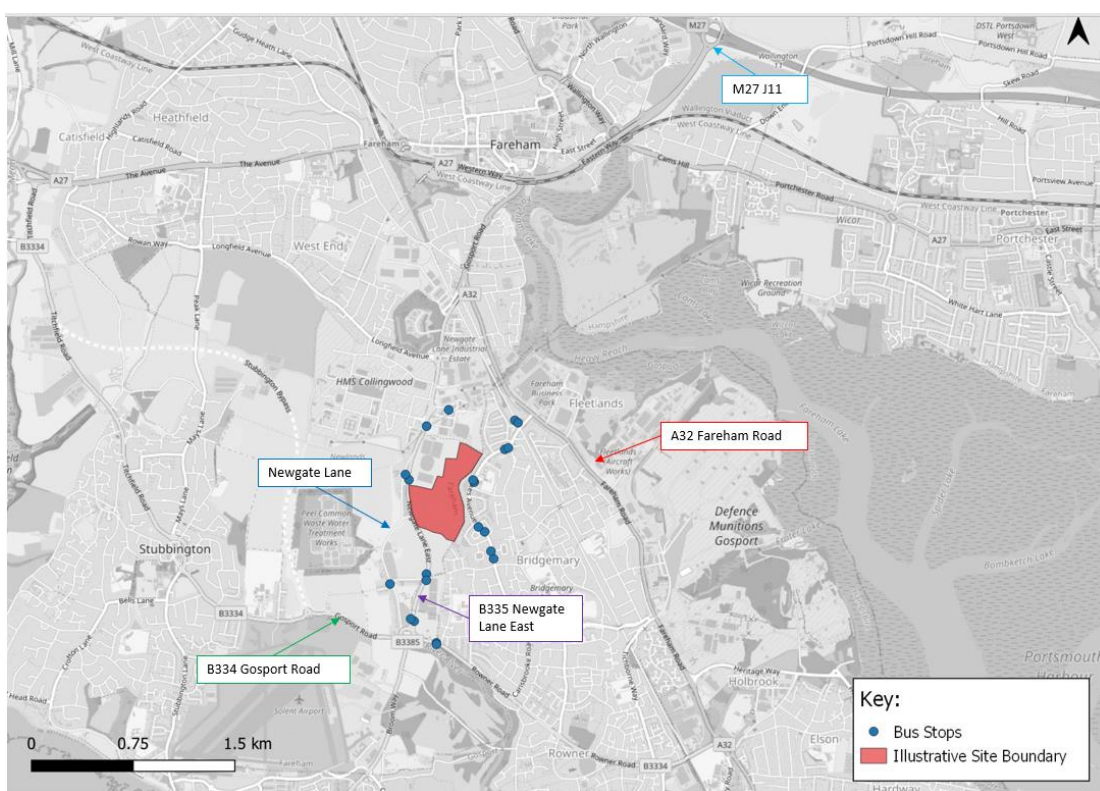
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# 1. INTRODUCTION

1.1.1 SYSTRA Ltd (SYSTRA) has been commissioned by Hampshire County Council (HCC) to review the transport proposals for a development site at the Land East of Newgate Lane East in Fareham (the Site). The Local Highway Authority is Hampshire County Council (HCC) and the Planning Authority is Fareham Borough Council. National Highways are the Strategic Highway Authority and have responsibility for the nearby M27 Strategic Road Network, with Junction 11 being approximately 2.6 miles north of the site routing via Newgate Lane, Gosport Road and the A27.

1.1.2 A Site location plan, showing the Site in the context of the surroundings can be found in **Figure 1** below.

**Figure 1. Site Location Plan**



1.1.3 The Site is currently subject to a planning application (Reference: P/22/0165/OA) by Miller Homes Ltd and Bargate Homes Ltd (the Applicant), which was submitted in January 2022. The planning application seeks approval for an ***“Outline Application With All Matters Reserved (Except Access) For Residential Development Of Up To 375 Dwellings, Access From Newgate Lane East, Landscaping And Other Associated Infrastructure Works”***.

1.1.4 HCC submitted a recommendation for refusal of the application and this has subsequently been appealed by the applicant with the Inquiry scheduled for October 2022. A number of requests for additional information were included in the HCC Highways response and i-transport has prepared a Technical Note dated 23 June 2022 in response to the clarifications raised on behalf of the applicant. SYSTRA has reviewed the clarifications and provide the

following comments with regard to reaching an agreement on the traffic distribution and assignment and committed development trips for Welborne Garden Village.

## 2. DISTRIBUTION AND GRAVITY MODEL

### 2.1 HCC Highways Response

#### 2.1.1 HCC response stated:

*“Regarding the employment trip distribution, both Gosport 001 and Fareham 013 mid-layer super output area (MSOA) data for residents from the 2011 Census has been used as requested during the pre-application discussions. However, discrepancies are noted in the destination data as not all of the destinations noted are at MSOA level.”*

### 2.2 Applicant Response – Section 2.2

- 2.2.1 The Technical Note outlines that 2011 Census data at MSOA level from Nomis (WU03EW: Location of usual residence and place of work by method of travel to work) has been used for both Gosport 001 and Fareham 013. Based on the large dataset from Nomis, each MSOA ‘Place of work’ has been grouped into a ‘Broader Destination,’ with the full analysis provided within Appendix A of the i-transport Technical Note. The applicant notes that this method assisted with identifying appropriate trip distribution routes for traffic assignment for more local based destinations and groups MSOAs together for further afield destinations.
- 2.2.2 SYSTRA have reviewed Appendix A and the applicants response and conclude that the approach taken is suitable to allow for consistency and efficiency, with a large number of ‘Place of work’ MSOA’s comprising relatively low number of travel to work trips, which are aggregated into broader destinations. Detail has been provided on the clarifications sought in the HCC response, with a clear methodology for grouping MSOA’s noted. For the more local destinations of Fareham and Gosport MSOAs the broader destinations denote key areas that are served by the specific MSOA zone, such as Stubbington and Bridgemary, so that the trip distribution accurately reflects the vehicle distribution from the site to these zone areas. No further comments are raised in relation to the Census based route assignment and this method can be embedded into the Transport Assessment Addendum assignment.

## 3. JOURNEY TIME / ROUTE CHOICE / STUBBINGTON BYPASS

### 3.1 HCC Response

- 3.1.1 It is noted that at the time the original application was submitted, the Stubbington Bypass has not been opened. The following statement was included in the HCC written response to the applicant:

*“On some occasions, routing is via the Stubbington Bypass for destinations that are considered should route via the A27 and M27, north from the site access, given the more direct routing. This needs to be revisited.”*

### 3.2 Applicant Response – Section 2.3

- 3.2.1 The Applicant notes that at the time of submission of the Transport Assessment to support the planning application Stubbington Bypass was under construction and not open for traffic. A combination of route times from google Maps during the AM Peak time (a journey start time of 07:55 was applied) and the HCC Stubbington Bypass Transport Assessment was used, to work out the average journey time of routing via the Stubbington Bypass from Peel Common to the M27 J9. This was calculated to be approximately 8 minutes (saving of 3-3.5mins from Peel Common to M27 J9).
- 3.2.2 In Appendix B, the Applicant has presented Google Map outputs of journey times during an AM Peak time of various routing options from the Site to the MSOA ‘Broader Area’ destinations.
- 3.2.3 The journey time comparisons are presented in Table 2.1 which has been replicated in **Table 1** below. These include routing via the M27 J11, Stubbington Bypass and Longfield Avenue, noting similar journey times for each route taken. In terms of journey times of the seven key destinations presented, for three of them the Stubbington bypass represents the longest journey time, for two it represents an equal journey time with another destination and for two it is either the fastest or second fastest route option. Whilst the journey time variance is relatively low it is felt appropriate that a lower proportion of trips are routed via the bypass than that included in the Transport Assessment. The revised distribution presented in the Technical Note is considered more appropriate, with 9% fewer vehicles routing south, given that for the majority of destinations the Stubbington bypass does not reflect the quickest route. The applicant notes that the pleasantness of the bypass route may help to encourage its use, which is accepted.

**Table 1. Stubbington Bypass Routing Review**

**Table 2.1: Stubbington Bypass Journey Time and Distance Comparison**

Destination	Distance / Time	Route via M27 J11	Route via Stubbington Bypass	Route via Longfield Avenue
Basingstoke	Distance (km)	73.1	71.5	70
	Time (mins)	62	66	64
Eastleigh	Distance (km)	27.2	25.6	24.0
	Time (mins)	34	36	34
Romsey	Distance (km)	39.2	38.2	36.2
	Time (mins)	45	45	44
Southampton	Distance (km)	30.3	28.7	27.2
	Time (mins)	43	45	41
Swanwick	Distance (km)	14.2	12.2	10.2
	Time (mins)	24	22	21
Titchfield	Distance (km)	N/A	6.7	6.7
	Time (mins)	N/A	13	14
Warsash	Distance (km)	N/A	11.3	10.9
	Time (mins)	N/A	20	20

Source: Google Maps



3.2.4 As the bypass is now open, the Applicant has undertaken a sensitivity assessment using Google Maps to demonstrate that the journey times using the bypass is broadly comparable to other route options and the forecast journey time savings applied to the route calculations can be validated, as exemplified in **Table 2** below.

**Table 2. Applicant Example Route Comparison (Opening of Stubbington Bypass)**

**Table 2.2 – Route comparison from Site Access to Eastleigh**

Destination	Time	Route via M27 J11	Route via Stubbington Bypass	Route via Longfield Avenue
Eastleigh	Original Assumption	34	36	34
	Revised Range	28-45	28-45	26-45
	Revised Median	37	37	36

3.2.5 Based on the opening of the bypass and journey times observed, the Applicant has demonstrated revised routing proportions in Table 2.3 of the Technical Note. The total trip assignment based on the above, is noted as 48% routing north from Newgate Lane East and 52% routing south from Newgate Lane East.

3.2.6 SYSTRA note the bypass is now open and therefore a revised distribution has been undertaken to best represent accurate journey times. HCC had previously requested that the trip distribution assignment was revisited so that destinations north and west of the Site which utilise the M27 for part of the journey, route via Longfield Avenue and/or M27 J11 rather than having an over reliance on the bypass.

3.2.7 The trip assignment has been amended following a re-distribution of traffic, shown in **Table 3** below, with justification on route choice and the proportions applied presented in Appendix B of the Technical Note.

**Table 3. Applicant Revised Trip Distribution**

**Table 2.4: Total Proportions Comparison**

Link	Previous Model			Revisited Model			Total Difference
	Commuting	Non-Commuting	Total	Commuting	Non-Commuting	Total	
Newgate Lane East (North)	24.85%	13.91%	38.77%	31.09%	16.80%	47.88%	+9.11%
Newgate Lane East (South)	25.55%	35.69%	61.23%	19.31%	32.80%	52.12%	-9.11%
Total	50.40%	49.60%	100.00%	50.40%	49.60%	100.00%	0.00%

3.2.8 SYSTRA’s previous independent assessment whereby all trips using the Stubbington bypass were redistributed to route north from the site access resulted in a total of 53% of trips routing north and 47% of trips routing south, compared to the 48% and 52% presented in the Applicants Technical Note. The Google maps outputs have presented that the Stubbington bypass could be a realistic alternative for some trips for certain routes. Having reviewed the proportions applied it is accepted that the revised distribution presents a suitable forecast of

the future distribution from the site. The Applicant has noted that with the Stubbington bypass now open, some future residents may well prefer to use this 'pleasant' route compared to using alternative routes and journey time and distance are not the only factors affecting route selection.

- 3.2.9 The Applicant has re-assigned a number of trips to route north based on similar journey times using the M27 J11, Longfield Avenue and bypass, ensuring a robust methodology. Consequently, the revised trip distribution and assignment of vehicles using Longfield Avenue, M27 J11 and Stubbington Bypass is acceptable. The revised distribution of total trips with 48% routing north from the site access and 52% routing south aligns with observed distributions on the Newgate lane (western link) which serves existing residential properties.
- 3.2.10 Overall the evidence presented to justify the distribution applied is robust, with the revised north/ south distribution aligning with observations. The revised distribution and assignment presented is acceptable and can be applied to assessments informing the Transport Assessment Addendum.

## 4. TRAFFIC FLOW DIAGRAMS

- 4.1.1 For consistency with the local road network, HCC requested that the detailed junction configuration including a bypass lane was included in the traffic flow diagram at Newgate Lane/ Speedfields business park roundabout to allow clear transparency of flow data inputted into the junction models. Additionally the Palmerston and Gosport Road junctions were added to observe the traffic flows in these locations.
- 4.1.2 The traffic flow diagrams presented in Appendix C have been reviewed and the distribution and traffic assignment is accepted for use in the Transport Assessment Addendum model assessments. Given the presented flow volumes of development traffic no junction modelling of the Gosport Road or Palmerston Drive junctions will be required.

## 5. COMMITTED DEVELOPMENT TRAFFIC FLOWS

### 5.1 HCC Response

- 5.1.1 Whilst the list of committed developments for inclusion was agreed by HCC the volume of trips associated with Welborne Garden Village which includes provision for up to 6,000 dwellings appeared low given the volumes of traffic routing along the A27 Gosport Road, with only five two-way vehicle movements routing via the site access junction in the AM peak. The following statement was included in the HCC written response to the applicant:

*"Welborne Garden Village (P/17/0266/OA – up to 6,000 dwellings) committed development flows appear low. Traffic flow diagrams supplied in the Transport Assessment Addendum dated March 2019 prepared by WSP in support of application P/17/0266/OA forecasts a significant proportion of trips to exist the M27 J11 off-slip and travel via the A27 Gosport Road."*

- 5.1.2 It was noted in the HCC response that the Welborne assessment network presented in the Transport Assessment does not reach as far as the site access on Newgate Lane and therefore clarity was sought on the assumptions applied when routing Welborne trips via the site access junction.
- 5.1.3 Within the Technical Note the applicant has supplied select link plots showing the distribution of development traffic assigned from the Sub-Regional Transport Model (SRTM). The flow difference plots include the network extent up to the A32/Newgate Lane/Palmerston Drive junction and the model forecasts that in the AM peak, Gosport Road south of the A32 junction will experience a net reduction of 29 two-way vehicle movements northbound and that during the PM peak there will not be any notable change in traffic flows south of this junction (less than 20 vehicle differences).
- 5.1.4 On the basis of this additional evidence presented, it is concluded that the committed development traffic flows presented in the Transport Assessment are considered to be a reasonable assessment and can be utilised in the assessments to inform the Transport Assessment Addendum.

## 6. CONCLUSION

- 6.1.1 In response to a HCC highways objection, i-Transport have prepared a Technical Note to respond to items of clarification and requests for additional information to validate assumptions and conclusions. Upon review of the information provided agreement has been reached on the following four elements:
- Distribution and Gravity Model Data – Grouping of broad destinations from MSOA outputs is considered acceptable.
  - Development traffic distribution and route choice via Stubbington Bypass- the revised distribution is accepted and the traffic flow assignment can be taken forward for junction modelling.
  - Traffic Flow Diagrams – no further comments are raised regarding the traffic flow diagrams which include the detailed junction configuration at Speedfields Park with the associated bypass lane and the Gosport Road / Palmerston Road junction.
  - Committed Development, Welborne Garden Village – strategic modelling plots showing the distribution of Welborne Garden Village trips provide evidence that the volume of committed development trips routed via the site access is acceptable. The committed development flows and assignment is considered robust for use in further assessments.
- 6.1.2 As demonstrated in this response, agreement has been reached on the items presented in i-Transport Technical Note and can be used to inform the assessments to be provided in the Transport Assessment Addendum which will respond to the outstanding items raised in the HCC objection response.



## APPROVAL

Version	Name		Position	Date	Modifications
1	Author	Esha Shah	Consultant	19/07/2022	
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