Transport Topic Paper

TPC4

Harborough Local Plan

2011-2031

Submission

HARBOROUGH LOCAL PLAN 2011-31

TOPIC PAPER: TRANSPORT

1. PURPOSE AND STRUCTURE

1.1 Topic Papers are an important source of information helping to outline and explain how policies in the Submission version of the Harborough Local Plan (2011-2031) have been prepared. For each topic the papers tell the 'end to end' story of how the policies have evolved, setting out the important milestones along the way.

1.2 Preparation of the plan has taken place over several years. The Topic Papers set out, for each topic identified, the approach taken to developing policies and the response to various overlapping factors that have been relevant to the process, such as:

- Updating or refinement of evidence as the plan was being prepared. Decisions at different points in the plan preparation process can only take account of evidence available at that point in time.
- Changes in planning legislation, regulations and government policy and indications of future changes, such as the Housing White Paper.
- Development proposals emerging during plan preparation, which may present alternatives not previously considered, and as part of the development management process.
- Taking account of how evidence and emerging proposals relate to plan-making activities in nearby authorities as part of the Duty to Co-operate.
- The relationship with infrastructure provision, including the existing position, programme for future work and sources of available and required funding.

1.3 The Council has prepared a series of Topic Papers. The Spatial Strategy Topic Paper sets out the context to the plan's preparation as a whole. This is then supplemented by Topic Papers relating to Housing, Business and Employment, Countryside Protection, and Transport. There is also a separate Duty to Co-operate Statement and a Consultation Statement.

1.4 The intention is to signpost rather than to duplicate the detailed technical evidence which is already available in the evidence base and not to repeat the Explanation given under each policy in the Local Plan itself. The main aim is to assist the Inspector carrying out the examination into the Local Plan, as well as others taking part in the Examination Hearing. It is assumed that these parties are familiar with the National Planning Framework and the National Planning Practice Guidance, so these are not repeated.

1.5 The Topic Papers tell the reader what needs to be covered, sets this out with sufficient contextual detail and then recaps what has been told. In order to do this they have a common structure:

- identifying the topic(s) covered and the Local Plan policies concerned (Section 2),
- describing the main issues addressed in the paper (Section 3),
- listing of that part of the evidence base especially relevant to the topic(s) (Section 4),
- addressing the issues in the main body of the report (Section 5), and
- making concluding remarks (Section 6).

2. THE TOPIC AND POLICIES

2.1 This Topic Paper addresses Transport and covers the transport justification for the following polices:

- SS1 Spatial strategy
- BE2 Strategic Distribution
- IN1 Infrastructure Provision
- SC1 Scraptoft North SDA
- L1 East of Lutterworth SDA

2.2 Assessments by the Highway Authority also support all other allocations of sites within the Local Plan but are not dealt with in detail in this Topic paper.

2.3 The role of this paper is to describe the evolution and content of the transport evidence underlying these policies. Transport evidence was one of five categories used to justify the choice of spatial strategy, but was not the determining factor. It was nevertheless important in relation to:

- Assisting in deciding which of various reasonable alternatives for spatial distribution offered the most sustainable form of development in transport terms, minimising travel by private car and maximising the use of sustainable modes;
- Demonstrating that the act of the amount and location of development proposed, both individually and cumulatively, could be accommodated on the highway network, if necessary with mitigation in the form of improvements to the network;
- Indicating the extent of environmental and other benefits that would help to justify the form and location of development proposed.

2.4 This paper should also be read in the context of the area's current transport provision. This is set out in Appendix D, Spatial Portrait, of the Local Plan (S1).

3. THE MAIN ISSUES

3.1 The following key questions are addressed in the Section 5 of this Topic Paper:

- How has the capacity of the transport infrastructure within and adjoining the District, particularly the road network, been taken into account in arriving at the spatial distribution of development?
- Is the spatial distribution justified as being the most appropriate strategy in terms of sustainable transport based on the evidence available?
- What transport infrastructure is required to enable development of the two SDAs?
- How has the potential Strategic Distribution development at Magna Park been taken into account in considering the SDA at east of Lutterworth and vice versa?
- What transport infrastructure is required to enable development proposed in Market Harborough?

4. KEY EVIDENCE STUDIES

4.1 There is a comprehensive evidence base that sits behind the Local Plan. All the documents are listed and are available from the Council's website at the following url:

http://www.harborough.gov.uk/directory/4/our_policies_plans_and_strategies/category/29

4.2 The key evidence documents relevant to this topic are:

A5 Sustainable Transport Strategy 2011-2026 (TRP1)

Harborough District Local Plan Preliminary Traffic Impact Assessment, Nov 2016 (TRP2)

Harborough District Potential Development Options Strategic Transport Assessment, 2015 (TRP3)

Land East of Hamilton Lane Scraptoft Initial Transport Feasibility Assessment, 2016 (TRP4)

Leicestershire County Council 6Cs Design Guide, 2013 (TRP5)

Leicestershire County Council Local Transport Plan 3, 2011 – 2026 (TRP6)

Leicestershire County Council Local Transport Plan 3 Implementation Plan (2015/2016) (TRP7)

Leicester and Leicestershire Draft Rail Strategy, 2016 (TRP8)

Lutterworth East SDA Junctions Operational Assessment, 2016 (TRP9)

Lutterworth East Strategic Transport Assessment 2017 Update, 2017 (TRP10)

Lutterworth East Strategic Transport Assessment, 2016 (TRP11)

Market Harborough Transport Strategy (2017-2031), 2016 (TRP12)

The Midlands Connect Strategy, March 2017 (TRP13)

Scraptoft, Leicestershire Transport Scoping Report, 2017 (TRP14)

South East Leicester Transport Study, 2016 (TRP15 & 16)

5. EVOLUTION OF TRANSPORT EVIDENCE

The Starting Point

5.1 The existing Harborough District Core Strategy was adopted in November 2011, and sets out a spatial distribution of development across the District to 2028. The Core Strategy does not allocate sites for residential or employment use, instead promoting development in locations served by existing services and facilities, reducing the need to travel.

5.2 No significant transport or highway infrastructure was proposed to be delivered through the Core Strategy, with the exception of Policy CS13 allocating of the Market Harborough SDA. Policy CS13 a) states that this will not prejudice the provision of a future link road to enable transport movements between A4304 (Lubenham Hill) and B6047 (Leicester Road) as part of a wider package of measures that seek to deal with transport issues predicted to arise in and around the town during the Core Strategy period. Further improvements, through financial contributions, were also required to Market Harborough Town Centre. This site has planning permission.

5.3 Since the adoption of the Core Strategy, Harborough District Council has continued to work alongside neighbouring local planning authorities, and the Leicestershire County Council and Leicester City Council highway authorities in supporting joint transport evidence documents, and supported the implementation of Local Transport Plan 3 (LTP3).

5.4 As the Core Strategy did not identify strategic allocations, further transport modelling has been required to justify large strategic allocations, together with the general strategic distribution of residential and employment development across the district to inform the Local Plan.

Spatial Distribution

5.5 The spatial distribution of development in the Local Plan is underpinned by the findings of two evidence documents: the Potential Development Options Strategic Transport Assessment (STA) (AECOM, September 2015) (TRP3) and the Preliminary Traffic Impact Assessment (TIA) (Jacobs, November 2016) (TRP2).

5.6 Both evidence documents assessed the impact of development options on link capacity of the highway network. This evidence informed the assessment of alternative housing and employment distribution options. Both evidence documents

enabled a high level testing of development options and set a baseline for further more detailed transport assessments for individual development proposals.

The Strategic Transport Assessment (TRP3)

5.7 The STA used ODYSSEUS, a gravity modelling approach, to distribute generated trips from development according to the size of, and travel time to, surrounding attractors (e.g. employment centres that may attract in-commuting from new residential proposals). Whilst providing a starting point for testing of options, the options and additional more detailed work has since been undertaken and evolved as the Local Plan has progressed. ODYSSEUS modelling provides an overview of the broad traffic impacts of development, highlighting any areas that may require further more detailed modelling. It used TEMPRO growth factors together with a 2014 traffic flow reference base. The model assessed flows and distribution up to 2031, consistent with the plan period. The assumptions used in the modelling, together with site details, growth factors, trip rates and methodology are set out in paragraphs 2.2 – 2.9 of the report.

5.8 The assumptions used in each scenario tested are set out in Appendix A, with each option varying between 4,761(Option 8) to 8,631 (Option 4). Scenarios 6-11 match up with the relevant Local Plan Options as below from the September 2015 consultation. These 6 scenarios also take account of potential strategic distribution Options A and B at Magna Park combined. This equates to testing a total of 380,000 sq. m. floorspace of B8 development. The total dwellings used in Scenarios 6-11 differ from the total dwellings used in the Local Plan Options (and the Scraptoft SDA tested was Scraptoft East SDA, not the Scraptoft North SDA that has since been carried forward). These differences are accounted for by the inclusion of 1470 dwellings at Airfield Farm, Market Harborough. Developments of less than 50 dwellings proposed at smaller settlements were not modelled in this assessment.

Local Plan Option Consultation	STA Scenario
Option 1 (Rural Focus)	Scenario 8
Option 2 (Core Strategy)	Scenario 6
Option 3 (Urban Focus)	Scenario 7
Option 4 (Scraptoft SDA)	Scenario 11
Option 5 (Kibworth SDA)	Scenario 10
Option 6 (Lutterworth SDA)	Scenario 9
Option 7 (Scraptoft & Kibworth SDAs)	Scenario 10 + Scenario 11
Option 8 (Scraptoft & Lutterworth SDAs)	Scenario 9 + Scenario 11
Option 9 (Kibworth & Lutterworth SDAs)	Scenario 9 + Scenario 10

Table 1: STA Scenarios to Local Plan Options

5.9 With regards to Local Plan Options 7-9 proposing 2 SDAs, the consultants considered that the proposed SDAs would only give rise to a localised impact on traffic flows, arising from each proposed SDA separately. It was considered unlikely that the proposed SDAs would impact upon each other.

5.10 A summary of the outputs from the STA is presented in Table 2 below, while a summary of the development scenarios is outlined in Appendix A.

5.11 Across Scenarios 6-11, the STA indicates that there are no instances where a link flow exceeds 100% capacity. There is, however one instance where the link flow exceeds 85% capacity: in Scenario 9 on Rugby Road, Cotesbach where capacity is

at 95%. Here the one-way link flow increases from 708 vehicles in the 2031 "reference case" (without development), to 1,188 vehicles with the proposed development. This would suggest limited capability to accommodate further traffic growth without road improvements, and this capacity issue is caused solely by the proposed East of Lutterworth SDA. Nearby, also in Scenario 9, capacity reaches 84% at Rugby Road, Lutterworth. Both sites are on a relatively short stretch of road, linking Lutterworth with Rugby and the A5 and M6.

5.12 Elsewhere capacity reaches 84% at Thurnby Hill, A47 in Scenario 11.

Scenario	Dwellings	Link Issue	Comments
S6 – Core Strategy	4,874	None	None
S7 – Urban Focus	5,030	None	None
S8 – Rural Focus	4,761	None	None
S9 – Lutterworth SDA	5,131	Rugby Road, Lutterworth, North of Shawell Lane	Could be managed by either removal or reduced scale of development at Lutterworth SDA. In addition, Rugby Road, south of Riverside Road is close to effective capacity and indicates that this road may have limited capability to accommodate further growth.
S10 – Kibworth SDA	4,932	None	None
S11 – Scraptoft SDA (NB Scraptoft East SDA)	4,918	None	Thurnby Hill (A47), west of Grange Lane, Thurnby close to effective capacity and indicates that this road may have limited capability to accommodate further growth

Table 2 – Summary of link capacity issues by scenario tested

5.13 For the Local Plan strategy, the revised options 6-11 tested with lower levels of development included compared to options 1-5, all show that, in link capacity terms, the district is able to absorb the level of development proposed. These options show no instances where link flow exceeds capacity. For the two strategic development proposals included in the Local Plan, these both result in link capacity issues at Rugby Road, Cotesbach and Grange Lane, Thurnby for the Lutterworth and Scraptoft SDAs respectively. These are however localised and result directly from the SDA proposals, with further work through additional transport modelling and the transport assessments of each site to focus on potential mitigation as part of each planning application. The levels of growth tested are broadly similar to those set out in the Local Plan, with a higher figure for the Lutterworth SDA (2,000 vs 1,500 to 2031), and c.1,200 dwellings to the PUA for Scraptoft North.

5.14 For the rest of the district, no link capacity issues were identified. The levels of growth to Market Harborough vary between the options tested; however the quantum and areas for housing development in Market Harborough are broadly the same in

the plan as those considered in the modelling. Although there are some discrepancies in the specific sites, this is not considered to be material. The options tested also included levels of growth at Rural Centres and Selected Rural Villages which are largely consistent with the Local Plan strategy (Policy H1).

The Preliminary Traffic Impact Assessment (TRP2)

5.15 The subsequent TIA provided a more detailed examination of emerging Local Plan proposed allocations to help develop a preferred option. The assessment used SATURN highway modelling from the highway component of the Leicester and Leicestershire Integrated Transport Model (LLITM). The 2031 LLITM reference case was used as a baseline for the Local Plan options tested, with both morning and evening peak hour model runs used. Trip generation and distribution forecasts for the options were developed with reference to the above 2015 STA, the TRICS database and the LLITM highway demand model.

5.16 The TIA followed the Local Plan Options Consultation Paper and the subsequent work on selected options (as described in the Spatial Strategy Topic Paper). Thus the nine options presented in the Options Consultation had been narrowed down to four options for further assessment, testing a Core Strategy housing distribution (Option 2), and Strategic Development Areas at Scraptoft North (Option 4), Kibworth (Option 5) and Lutterworth (Option 6). These options were tested on a 2031 baseline position from LLITM modelling, but updating this to add in a fully built-out Airfield Farm (Market Harborough SDA) site (1,500 dwellings), including the link road from the B6047 to the A4304. The four options tested included the following growth assumptions, based on the emerging housing and employment numbers at that time.

Option 2 – Core Strategy distribution:

- Market Harborough – 1,732 dwellings, including allocations at Overstone Park and Blackberry Grange and 840 residual dwellings;
- No SDA proposals;
- 474 dwellings to Fleckney, 373 dwellings to Lutterworth and 326 dwellings to the PUA;
- c.88,000sqm employment floorspace, split between office and light industrial, with the majority in Market Harborough and Lutterworth.

Option 4 – Scraptoft / Thurnby SDA:

- 1,200 dwellings at a Scraptoft North SDA – including a road link between Hamilton and Beeby Roads and additional road link (not part of the final SDA proposal) between Beeby Road and Covert Lane;
- 474 dwellings to Fleckney, 373 dwellings to Lutterworth and 892 dwellings to Harborough including Overstone Park and Blackberry Grange allocations;
- C.88,000sqm employment floorspace, split between office and light industrial, with the majority in Market Harborough and Lutterworth.

Option 5 – Kibworth SDA:

- 1,490 dwellings at a Kibworth SDA – including a road bypass for Kibworth;
- 474 dwellings to Fleckney, 373 dwellings to Lutterworth and 892 dwellings to Harborough including Overstone Park and Blackberry Grange allocations;
- C.101,000sqm employment floorspace, split between office and light industrial, including 18,000sqm at Kibworth as part of the SDA.

Option 6 – Lutterworth SDA:

- 1,290 dwellings at a Lutterworth SDA, east of the M1 – including a road link through the SDA from the A426 north of Lutterworth to the A4304 and additional junction works at the A4303 / Rugby Road island (the Whittle Island) and signalisation of M1 J20;
- 474 dwellings to Fleckney, and 892 dwellings to Harborough including Overstone Park and Blackberry Grange allocations;
- c.99,000sqm employment floorspace, split between office and light industrial, but also including 12,000sqm strategic distribution floorspace associated with the development of the Lutterworth SDA.

Option 6a – Lutterworth SDA and Magna Park

- All development assumptions as per Option 6 above, plus 279,000sq.m. strategic distribution floorspace (and associated use floorspace) at Magna Park.

5.17 The TIA assesses the 2031 LLITM reference case, highlighting junction delays, mainly in Market Harborough, centrally and to the A6, and with lower levels of delay at the Kibworths and Lutterworth, with additional junctions at Broughton Astley and Great Easton also demonstrating delays. Junction delays across the district as a whole are shown to be low, particularly in comparison to Leicester City and Blaby District.

5.18 For Harborough District, Option 4 (Scraptoft SDA) results in the lowest level of traffic impact of all the options tested, including lowest levels of transient queueing, the highest average speeds and lowest overall travel time in both peak hours. This is due to its location and proximity to Leicester, with Leicester the main attractor for trips resulting from the Scraptoft SDA. This results in a lower impact on Harborough District, but increases congestion levels at already congested (and over capacity) junctions within Leicester City. Provision and/or financial contributions towards infrastructure required outside of the district to mitigate development from within the district will be secured through Local Plan policy IN1.

5.19 Options 6 and 6a (Lutterworth SDA) result in the highest level of transient queuing of all the options and lowest average speeds, mainly due to congestion at key junctions (Whittle Island, A4304, and new development junction, A4304) as a result of the SDA development and also shows a high increase in traffic using Gilmorton Road to access Leicester via rural routes.

5.20 Due to its location away from main attractors for traffic journeys, Option 5 (Kibworth SDA) results in the highest forecast travel time and highest travel distance of all options. As a result, development from the Kibworth SDA will take longer to reach its destination.

5.21 As per the Strategic Transport Assessment above, the Traffic Impact Assessment of options shows that none of the tests undertaken results in a definite critical traffic issue either within Harborough District or the wider county, with relatively minor differences between the options. Traffic from new development forms a small overall proportion of total traffic forecast to 2031, and therefore results in small increases in delays at specific junctions, albeit with additional work required to fully understand issues at Lutterworth junctions in relation to Options 6 and 6a.

5.22 Several junctions in the district will require mitigation works, both through the impact of proposed development and as a result of the 2031 reference case. These include key junctions in and around Market Harborough, junctions on the edge of the district at Broughton Astley and Great Easton, and junctions in Lutterworth and the Kibworths. In relation to the Local Plan spatial distribution, the TIA represents a more accurate and refined assessment of options in terms of levels of proposed development than the initial STA above. The levels of both residential and

employment development proposed are much more closely related to those set out in the Local Plan, particularly with regards to the three SDAs tested, Market Harborough, and Fleckney, although a lower level of Strategic Distribution (B8 use) provision is tested.

5.23 With the exception of specific junctions in Options 6 and 6a (Lutterworth SDA), none of the options results in a critical traffic issue on the network, with the increase in delay and congestion at key junctions considered minor in relation to the 2031 reference case. The TIA highlights specific strengths and weaknesses of each option.

5.24 The Kibworth SDA was shown to result in the largest increase in travel times and travel distances across both Harborough District and the County compared to the other options, together with the biggest increase in traffic flow and emissions on the A6 between the Kibworths and Oadby. Due to its distance from key attractors, the proposed Kibworth SDA would result in a high reliance on car use in comparison to the Lutterworth and Scraptoft SDAs, with less potential for modal shift to more sustainable transport. Additional development to the north-east of the Kibworths, while providing a bypass that would reduce traffic through the centre of the villages and provide scope for improving the public realm would also result in a knock-on effect at Market Harborough, since Market Harborough, Corby, Kettering and Northampton would be key attractors alongside Leicester. This would exacerbate existing capacity issues within Market Harborough that occur under the 2031 reference case, whilst also increasing traffic to rural routes as traffic seeks to avoid the congestion on the main A6.

5.25 Whilst the East of Lutterworth SDA was shown to result in traffic impacts at key local junctions, these would be localised and near the development, with less impact over the wider District and County. Further assessment of mitigation was required for these localised junctions, but in comparison to the Kibworth SDA, the Lutterworth SDA allows for a higher provision of local employment within the existing settlement and proposed development.

5.26 The Scraptoft SDA proposal was shown to result in the lowest impact of all options on the road network in Harborough District, with the key attractor route (A47) less congested in the 2031 reference case than the A6 (serving Market Harborough and Kibworth development into Leicester). Additional delays were shown to Station Lane and Grange Lane junctions on the A47, with additional delays to already congested junctions within Leicester City, providing a minimal increase on existing delays. The Scraptoft SDA also creates more potential for modal shift to sustainable transport modes due to its proximity to Leicester as the main attractor, despite no employment provision included as part of the SDA proposal.

5.27 Elsewhere in the district, no severe impacts are shown to result from a level of development in Market Harborough and Fleckney in Options 4, 5 and 6 that is broadly in line with the Local Plan spatial distribution.

The South East Leicester Transport Study (TRP15&16)

5.28 Phase 2 of the South East Leicester Transport Study (Existing Highway Network Assessment Opportunities and Constraints) seeks to identify opportunities and constraints for future highway improvements split over 10 assessment areas, of which five (Areas 1, 2, 6, 9 and 10) include an element of the district. The Study uses the Leicester and Leicestershire Integrated Transport Model (LLITM) to model housing and employment growth and identify junctions at operating capacity.

5.29 The Study assesses the impact of committed and proposed development in the south east area of Leicester, as far as Kibworth on the A6, and includes the proposed Scraptoft North SDA. The number of dwellings modelled for each settlement includes

proposed provision of the Scraptoft North SDA and additional growth at Fleckney only, with Kibworth and Great Glen growth already committed and with no further growth proposed.

5.30 The Study concludes that the proposed levels of growth can be accommodated on the highway network with appropriate mitigation. Proposed mitigation schemes are set out in the Study by area, with all mitigation proposals located outside of the District. The levels of committed and proposed growth at Kibworth, Great Glen and partially at Fleckney have already been assessed through relevant Transport Assessments for the commitments, with proposed growth at Fleckney only a small percentage of growth above this. Further, whilst the Study does include the proposed Scraptoft SDA, the Study concludes that this area is considered out of scope as impact is predominantly from the SDA only, with the impact of development traffic to be considered in the development Transport Assessment.

East of Lutterworth SDA and Magna Park Expansion

5.28 A Strategic Development Area (SDA) is proposed to the East of Lutterworth[1]. Policy L1 sets out, amongst other things, the transport improvements required in order to support the proposed development. This section sets out the transport infrastructure requirements and the evidence that underpins their inclusion in Policy L1. It also seeks to identify how cumulative transportation issues, mainly associated with potential development at nearby Magna Park, have been considered.

5.29 A draft masterplan (Figure 1) submitted on behalf of the site promoters shows the potential land uses and the key links and access points.

5.30 The masterplan has no status at present but is a visual representation of potential land uses and the key links and new junctions that are promoted in policy L1. The proposed development will comprise:

- About 2,750 dwellings (of which some 1,500 will be completed during the plan period);
- 13 hectares of non-strategic storage and distribution employment development;
- 10 hectares of Business Uses falling within class B1 and B2;
- Two primary schools (both two form entry);
- A neighbourhood centre incorporating retail and community facilities comprising:
    - A supermarket;
    - Public House / Café;
    - A Doctor's Surgery; and
    - A Community hall.

[1] Policy L1 of the Submission version of the plan informs.

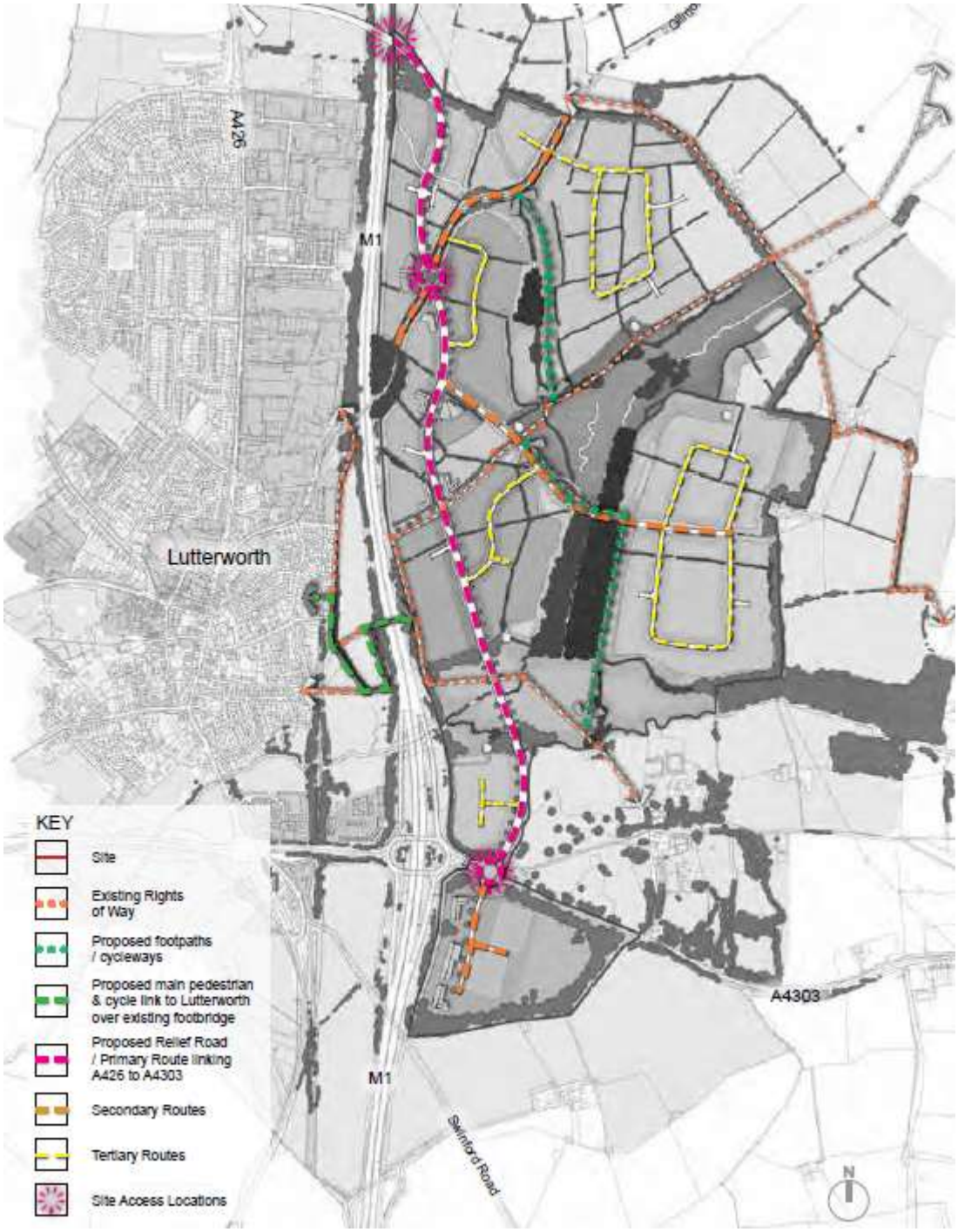


Figure 1. Draft masterplan –showing proposed new links and junctions (source Lutterworth East Vision (FPCR March 2015 pp42)

5.31 Policy L1 sets out the key Highways and Transportation infrastructure required to accommodate the development. The policy sets out the transport requirements and indicates that:

- Access to the south of the site will be taken from the A4304, this is intended to serve the southern part of the main site and the employment uses to the south of the A4304,
- Access to serve the northern part of the site will be taken from the A426;
- A spine road will be provided between the A426 north of Lutterworth and the A4304 east of M1 junction 20, including a new bridge over the M1 motorway and a link to the A426;

- The existing Gilmorton Road crossing over the M1 will be converted to use by public transport, cyclists, pedestrians and emergency vehicles only.

5.32 In addition to the 'hard' infrastructure requirements, the policy requires:
- Improvements to public transport;
- Submission of a 'Travel Plan';
- Provision of 'Travel Packs'; and
- Improved walking and cycling networks within and beyond the development.

5.33 'Off-site' transport improvements are also required by the policy. These include:
- Traffic signals and other necessary improvements to junction 20 of the M1;
- Reconstruction and signalisation of the junction of the A426 with the A4303 south of Lutterworth (the 'Frank Whittle roundabout');
- A new roundabout on the A426 to the north of Lutterworth, and;
- Necessary improvements to the junction of the A426 with Bill Crane Way.

5.34 The transport evidence that has underpinned the policy requirements are:
- The Potential Development Options Strategic Traffic Assessment (TRP3) as described above;
- The Preliminary Traffic Impact Assessment as described above (TRP2);
- Lutterworth East Strategic Development Area Strategic Transport Assessment: (February 2017) (AECOM in association with Leicestershire County Council)(TRP10); and
- Lutterworth East SDA Junctions Operational Assessment (December 2016) (TRP9)

5.35 Other studies have been undertaken which provide more contextual transport evidence but do not directly inform the transport elements of the Lutterworth SDA policy (L1). These include:

- South East Leicester Transport Study (October 2016) (Edwards & Edwards)(TRP15&16) – this investigated the cumulative and cross-border transport effects of housing options abutting the south-east of the City of Leicester Principal Urban Area. The report considers implications of Lutterworth as a location for growth on the Leicester PUA, but concluded that the interactions were limited.

- A Strategy for the A5 (2012)(TRP1) - the purpose of this was to ensure that the A5 was 'fit for purpose' but it also considered (at a high level) its ability to accommodate growth. The report provided a useful context to policy BE2 (Strategic Distribution). The A5 Strategy is currently being updated (2018 – 2031), including with regards to managing the impact of freight along the A5 corridor.

5.36 The 'Lutterworth East Strategic Development Area Strategic Transport Assessment: (2017)(TRP10)' is the main source of evidence that informs policy L1. This was undertaken by AECOM on behalf of the promoters, but has been reviewed and accepted by Highways England and the Local Highway Authority. The assessment used the Leicester & Leicestershire Integrated Transport Model (LLITM) to assess strategic transport impacts. Detailed impacts, including the performance of specific links and junctions used more detailed junction models, including PICADY (priority junctions), ARCADY (roundabout junctions) and LINSIG/TRANSYT for signalised junctions. VISSIM (micro-simulation) model has also been used.

5.37 The report concludes at paragraph 6.6 (pp35) that:

"To facilitate the development, the following infrastructure would likely be required:
- *Provision of main access onto the A4304 (in the form of a signalised crossroads);*
- *Mitigation at M1 (Junction 20), likely to be in the form of:*

- *Full entry signalisation*
- *increasing the number of circulatory lanes on the eastern side of the junction to three lanes; and*
- *provision of a short flare on the westbound entry to allow three entry lanes into the junction (two heading over the bridge, and one to the southbound on-slip).*

- *Replacement of the A4303 / A426 junction with a signalised crossroads;*
- *Mitigation at A426 / Gilmorton Road, likely to be in the form of a mini-roundabout; and*
- *Potential mitigation at the A426 / Bill Crane Way junction in the form of a signalisation scheme.*

The analysis contained within this section indicates that a northern access onto the A426 would likely be required to facilitate the development. Providing an access onto the A426 improves the performance of the A426 / Bill Crane Way, A426 / Gilmorton Road and A426 / A4303."

5.38 The mini-roundabout at A426/ Gilmorton Road was subsequently dropped following further analysis by the promoter's transport consultants that indicated that it did not result in improved traffic flows. It was replaced by proposals for the motorway crossing on Gilmorton Road to be restricted to sustainable transport and emergency vehicles only following completion of the northern access. More detailed specifications and trigger points for transport infrastructure are set out in paragraph 15.2.16 of the Local Plan. Ongoing monitoring is proposed to ensure that infrastructure delivery can respond to observed circumstances (see para 15.2.17).

5.39 Appendix F (Technical Note on Final Model Runs and Junctions Assessment) of the 'Lutterworth East Strategic Development Area Strategic Transport Assessment: (2017) (TRP10) summarises the final built out forecasts and land use assumptions. This uses final LLITM SATURN model runs using the assumptions of 2,950 dwellings and 23ha of employment, with all off site junction mitigation in place and including the closure of the Gilmorton Road bridge (except for buses).

5.40 Appendix F sets out that all junctions, subject to amendments, would operate within capacity and also assesses the impact upon Lutterworth town centre. For the town centre impact, the tables below show the comparison between a reference case and final traffic forecasts, based on a scenario as per para 5.39 above, with a reduction of up to 34% shown in both the AM and PM peaks. The key findings of the comparisons are:

- A significant reduction of the traffic along A426 Rugby Road, between Frank Whittle junction and the junction of the A426 and with Gilmorton Road;
- Less traffic on A426 Leicester Road on the section between Gilmorton Road and Bill Crane Way;
- Less traffic southbound and northbound on the A426 Rugby Road north of Bill Crane Way junction; and
- More traffic on the Bill Crane Way turning left (north).

Link	Direction	AM			
		Forecast		Difference	
		Ref	Final	Traffic	%
A426 Lutterworth Road – North of Gilmorton Road	NB	734	680	-54	-8%
	SB	806	663	-143	-18%
A426 Lutterworth Road – South of Gilmorton Road	NB	990	743	-247	-25%
	SB	995	658	-337	-34%

Table 3: AM relief to Lutterworth town centre

Link	Direction	PM			
		Forecast		Difference	
		Ref	Final	Traffic	%
A426 Lutterworth Road – North of Gilmorton Road	NB	508	522	+14	+3%
	SB	940	821	-119	-13%
A426 Lutterworth Road – South of Gilmorton Road	NB	1,033	687	-346	-34%
	SB	919	700	-219	-24%

Table 4: PM relief to Lutterworth town centre

5.41 The Lutterworth East SDA Junctions Operational Assessment (TRP9) builds on the TIA as above through a more detailed investigation of junctions M1 J20, new junctions on the A4304 and A426 to enable access to the SDA, and proposed works to the Whittle Island on the A4303. The Assessment is based on TIA scenario 6a (para 5.16 above).

5.42 The Assessment concludes that all of the modelled junctions, incorporating the proposed junction layouts (by the promoter) and modelled amendments (by Jacobs to A426 junction), the junctions operate within sufficient capacity. The junctions operate with spare capacity during the 2031 AM and PM peak hours, with no approach arms operating above 90% capacity.

5.43 In addition to modelling junctions, the Assessment also analyses how HGV movements are forecast to respond to road network and demand changes associated with the junction improvements, with an aim to understand the scope for reducing HGV movement within Lutterworth town centre. The Assessment shows that a significant proportion of HGVs using the A426 (southbound to Lutterworth) have trip origins or destinations within Lutterworth (approx. 25%), with therefore the proposed spine road being of no benefit to this 25% using the town centre, however a significant proportion of traffic on the A426 switches from the High Street to the new spine road (c50%). There is less interaction of HGV movements arising from the south (A426 Rugby Road) and east (A4304) with the town centre, with therefore less benefits realised from the spine road for these movements. Additional recommendations for managing HGV movements within Lutterworth town centre are set out in para 4.3.2 of the Assessment.

5.44 The transport impacts and implications of the Lutterworth SDA have not been considered in isolation. In developing policy L1, the Council has been mindful of the potential expansion of Magna Park (A Strategic Distribution employment site to the south of Lutterworth). The Submission Local Plan, Policy BE2, identifies potential growth of up to 700,000 square metres of employment floorspace, subject to various criteria including no significant adverse transport impacts.

5.45 As described above, the TIA considered four development options. Option 6 assessed the East of Lutterworth SDA, comprising at that time 1,290 additional dwellings and employment land and including a new link road connecting the A4304 (to the east of its junction with the M1) with the A426 as proposed in policy L1.

5.46 Some sensitivity testing (option 6a) was carried out at the time which considered the combined impacts of the SDA and growth at Magna Park. This initially included some 280,000 square metres of additional employment floor space for warehousing and distribution and ancillary offices on two sites immediately to the west of Magna Park and south of the A4303 (DHL and db Symmetry sites, with it not feasible in terms of time and cost at the time of the TIA to test the much larger IDI Gazeley site or any other combination of options).

5.47 In the context of the combined developments, the report concluded (in para 4.8.3) that:

"…cumulative impact of committed development at Magna Park further exacerbates the [transport] issues …..by increasing demand and delay at the new signalised

junctions on the A4303 and A4304. Magna Park development traffic also increases delay at junctions further to the west along the A5…..

…..further more detailed investigation of the underlying causes and potential for mitigation at these locations is required".

5.48 Further work has subsequently been carried out, including an addendum to the 'Lutterworth East Strategic Development Area Strategic Transport Assessment (TRP10)' which considered the potential impacts of employment growth at the 'db Symmetry site' south of the A4303 at Magna Park. The report assessed the combined impacts of growth at the db Symmetry site and Lutterworth SDA on the main junctions and concluded[2] that the:

"The….junctions are able to accommodate the predicted 2031 Option 6A traffic flows for both the AM and PM peaks."

"The M1 Junction 20 and A4304 / Eastern link roads will operate with considerable spare capacity for both peaks, with fairly low cycle times."

"The Frank Whittle and A426 / Bill Crane Junctions operate closer to capacity; however still operate with some spare capacity."

5.49 Following on from this, in March 2017, the site promoter commissioned consultants AECOM to carry out further modelling work which sought to assess the transport impacts of the full proposed growth at Magna Park including the Magna Park extension (ref: 15/01531/OUT[3]); and, the 'db Symmetry' application (ref: 15/00865/OUT). The cumulative scale of growth assessed was some 706,000 square metres. The findings of the study are set out in the 'Lutterworth East SDA Junctions Operational Assessment'[4]. In summary, the modelling work demonstrated that:

"The results shown in Tables 1 and 2 demonstrate both junctions to operate with ample spare capacity and therefore the updates mentioned above do not change any of the findings of the Transport Assessment for the Lutterworth East SDA."

A copy of the e-mail dated 16th March 2017 which clarifies the position and is attached as Appendix D.

5.50 Three planning applications have been submitted for consideration by Harborough District Council on behalf of two developers, 'IDI Gazeley' (LPA ref: 15/00919/FUL & 15/01531/OUT) and 'db Symmetry' (LPA ref: 15/00865/OUT).

5.51 The applications propose some 700,000 square metres of strategic scale storage and distribution space. Transportation Assessments have been prepared in support of these planning applications and have been independently assessed by the Local Highway Authority.

5.52 The Local Highway Authority and Highways England have been engaged in the development of the plan from its inception. Both are aware of the proposed SDA and the potential for expansion at Magna Park. The representations received from both Highway Authorities in relation to the Publication Version of the Local Plan have indicated that they are satisfied which the evidence and potential mitigation

[2] Lutterworth East SDA Junctions Operational Assessment - Technical Note - Lutterworth East SDA Junctions (para 5.1, pp23)

[3] Including the approved Magna Park extension by DHL (LPA ref: 15/00919);

[4] http://www.harborough.gov.uk/download/downloads/id/3438/lutterworth_east_sda_-_sta_update_for_the_symmetry_applicationpdf.pdf

measures, with Highways England stating no objections in principal, including a new bridge over the M1[5].

Scraptoft SDA

5.53 The traffic impacts resulting from the proposed Scraptoft SDA were assessed in both the STA and TIA as above, and through an Initial Transport Feasibility Assessment (August 2016) (TRP4) and Transport Scoping Report (January 2017) (TRP14) both undertaken by RPS on behalf of the site promoter.

5.54 The Initial Transport Feasibility Assessment (TRP4) considered the opportunities for access to the site and the overall impact of the development on the local highway network, together with sustainable transport opportunities. It is a high level study of highway matters, including initial junction assessments.

5.55 Scraptoft is accessible for a number of local services and facilities. Of the six key services and facilities considered as part of the settlement hierarchy (Appendix F of the Local Plan), Scraptoft has a pub, post office and food shop, with further access to a primary school in Thurnby (Fernvale). Nearby but outside the district is a secondary school, further primary school and medical centre, with the settlement served by an infrequent bus service to Leicester (56) but with more frequent bus services within 400m walking distance (58 and 38).

5.56 Scraptoft operates a one-way traffic system through the village from the south, with traffic exiting the village up Church Hill to the south east of the village to Station Lane and onwards to access the A47. As well as serving local journeys, Scraptoft serves a wider catchment with routes from the east of Leicester, with through traffic accessing Thurmaston, the A46 and onwards to M1 J22 via Scraptoft as an informal radial route around Leicester in the absence of a ring road to the east of Leicester.

5.57 Scraptoft has received growth since 2006, with development to the east of the village accessing to both Beeby Road and Covert Lane. Additional development has since been completed and permitted at two sites on Beeby Road (Persimmon and Bellway development sites), with further development currently being built at Pulford Drive (260 dwellings in total) and a commitment of 275 dwellings accessed off Uppingham Road, Bushby. North of Scraptoft, the Charnwood Core Strategy proposes a Strategic Urban Extension at Thurmaston.

5.58 The Initial Transport Feasibility Assessment undertook a series of traffic counts to establish baseline traffic flow for Hamilton Lane, Keyham Lane west and east, New Romney Crescent, Scraptoft Lane, Station Lane, Station Road and the A47. The Assessment looked at the provision of 1,200 dwellings at Scraptoft North. Whilst additional developments to the south of Covert Lane / south east of Scraptoft that connect to the A47, and further expansion of the Scraptoft North SDA proposal are mentioned, these do not form part of the assessment. The Initial Transport Feasibility Assessment will be superseded by further LLITM modelling as part of a final Transport Assessment to be submitted with a planning application.

5.59 The proposed Scraptoft North SDA would have two points of access to Hamilton Lane to the west, to enable the site to connect to New Romney Crescent and Keyham Lane West, with an additional access from Beeby Road. The SDA proposes a link between Beeby Road and Hamilton Lane through the centre of the site, allowing for changes to the one way system and in priorities for traffic travelling north to south on Hamilton Lane. Instead traffic travelling east to west on to New Romney Crescent and Keyham Lane West would have priority, enabling a faster connection into Leicester. In addition, the provision of a through link road from Beeby Road to Hamilton Lane would enable traffic from the existing Beeby Road developments

[5] Letter received from Highways England dated 30 May 2017, see Appendix C.

(c.410 dwellings) to access directly to Hamilton Lane and onwards to Leicester without having to travel through the village and existing one way system. A layout of the proposed site and access points is set out in Figure 2 below (NB this layout does not take account of subsequent proposals to establish a Local Wildlife Site).

Figure 2: Scraptoft North SDA Masterplan

5.60 The Initial Transport Feasibility Assessment (TRP4) set out the following mitigation measures in addition to the proposed routes and access points set out above:

- Keyham Lane West - creation of formal parking laybys to remove on road parking, freeing up road space;
- New Romney Crescent - creation of formal parking laybys to remove on road parking, freeing up road space;
- Speed table to both of the above at school sites (Scraptoft Valley primary school and Hamilton Community College);
- Scraptoft village – reversing of one way system and access to Scraptoft Lane via Stocks Road and Scraptoft Rise and priority works to south of Hamilton Lane to deter rat running traffic through the village;
- Junction improvements to Station Road / A47; Scraptoft Lane / Hungarton Boulevard; Hamilton Way / Maidenwell Avenue (Tesco); and Netherhall Road / Hungarton Boulevard with further modelling to be undertaken.

5.61 The Assessment used the TRICS database to formulate trip generation assumptions from the development, based on other similar sized schemes and the transport assessments for other smaller schemes in Harborough District, and with Leicester

the main attractor for employment destinations. Assessing the baseline and proposed traffic flows, both before and after applying the proposed off site mitigation works, including the re-routing of the Scraptoft one-way system through Scraptoft village, showed that Keyham Lane west and New Romney Crescent would see the largest impact from the proposed development.

5.62 Before applying an amended traffic flow through Scraptoft, New Romney Crescent and Keyham Lane West showed a significant level of predicted change of 99% increase and 93% increase respectively in the morning peak. These figures would rise to 169% and 92% respectively when applying the one way re-routing through Scraptoft village. Whilst significant increases in percentage terms, the traffic flow along these roads would remain within capacity, with both road links shown as around 600 two-way vehicle movements per hour. Moreover, applying the re-routing plan for Scraptoft village would result in traffic through the centre of the village decreasing by approx. 50%, to 321 two way movements in the morning peak (all excluding additional movements from recently consented developments).

5.63 Immediate junctions around Scraptoft village were also assessed, although this excluded junctions further away from the site that are already known to be under stress (e.g. Station Lane / A47), with further work to continue in the Transport Assessment. Four junctions were assessed at:

- Hamilton Lane / Keyham Lane west / site access;
- New Romney Crescent / Scraptoft Lane;
- Scraptoft Lane / Scraptoft Rise; and
- Covert Lane / Station Lane.

5.64 Of the above, only the final junction was considered to be over capacity as a result of the proposed development, with works required to amend the existing mini roundabout to remove an entry arm to be an exit only, as part of the re-routing of the Scraptoft village one-way system. Subject to this amendment, and creation of a new mini-roundabout at New Romney Crescent / Hamilton lane junction, the immediate junctions around Scraptoft were considered to remain within operating capacity.

5.65 Outside of the immediate area of Scraptoft, a high level overview of the impact on the strategic network was included in the assessment, with further work to be carried out within a Transport Assessment. The following junctions were assessed:

- Hamilton Lane / Maidenwell Avenue / Lower Keyham Lane;
- Tesco / Maidenwell Avenue / Preston Rise;
- Hungarton Boulevard / Colchester Road / Scraptoft Lane; and
- Uppingham Road / Station Road.

5.66 The assessments were based on a 2026 baseline LLITM model that includes the Strategic Urban Extension at Thurmaston, north of Scraptoft. Of the above junctions, the Hamilton Lane arm of the first junction, together with the Hungarton Boulevard junction, were shown to either be at capacity or with reduced capacity in the development scenario. However, for both junctions sufficient highways land exists around the junction to allow for future mitigation. The Assessment also concluded that further work is required with respect to Uppingham Road / Station Lane junction, with a discrepancy between the 2026 LLITM model data and the traffic flow data recorded for the Assessment.

5.67 The Transport Scoping Report (January 2017) (TRP14) sets out the main sections to be provided for as part of a Transport Assessment to be submitted with a planning application. In addition, further details are provided of the proposed access arrangements and off site mitigation. These are set out in the Scoping Report, and will be updated through the Transport Assessment with additional LLITM modelling.

5.68 Further work will be progressed ahead of the submission of a planning application and accompanying Transport Assessment. Additional work will include a LLITM modelling run of the proposed SDA, together with further assessment of all off site

mitigation works, including those outlined in paragraphs 5.57 to 5.59 above. Subject to appropriate mitigation to off-site junctions, the traffic effects of the proposed Scraptoft North SDA are not considered severe.

Market Harborough

5.69 Development in Market Harborough is on a lesser scale than the two SDAs, but Market Harborough has a high cumulative level of development, when taking into account existing commitments. The Local Plan proposes the following site allocations for Market Harborough:

- Overstone Park – around 600 dwellings;
- Northampton Road – around 350 dwellings;
- Burnmill Farm – around 90 dwellings;
- Land at Airfield Farm – around 50,000sqm employment floorspace;
- Airfield Business Park – around 30,000sqm employment floorspace; and
- Compass Point Business Park – around 18,000sqm employment floorspace

5.70 Of the above site allocations, only Burnmill Farm has not been subject to a more detailed assessment of highway impacts to inform the Local Plan, however two of the proposed site allocations, Overstone Park and Burnmill Farm, are subject to pending planning applications both of which include a transport assessment. Overstone Park is submitted for up to 600 dwellings as per the Local Plan site allocation, whilst Burnmill Farm is submitted for up to 142 dwellings, above the 90 dwellings of the Local Plan site allocation. However, the number of dwellings proposed for Burnmill Farm as part of the planning application remains subject to change.

5.71 The residential allocations above are included in some capacity within the Preliminary Traffic Impact Assessment (TIA) (TRP2). The total numbers for each development site are not an exact match, but are considered to be a close relation of those tested through these options, with a higher level of growth in Market Harborough tested through Option 2 (Core Strategy). Burnmill Farm as a site allocation is not identified specifically in any of the previous transport modelling undertaken, but the 90 dwellings proposed are considered to be adequately included in the Market Harborough residual dwellings figures tested. In addition, a transport assessment has been submitted as part of the planning application in relation to 52 additional dwellings over and above the Local Plan allocation.

5.72 The TIA, together with the Strategic Transport Assessment (TRP3) identifies a number of junctions within Market Harborough that are shown as over capacity as part of the 2031 reference case scenario, prior to additional development being added. These junctions do not relate specifically to any of the development sites, instead being in the centre of the town as a result of existing commitments and background traffic growth, and to the edge of the town on junctions with the A6 (from Rockingham Road and Melton Road). As a result, these junctions require mitigation works as part of the 2031 reference case, and are not considered to result in additional highway issues as part of the site allocations proposed.

5.73 The Market Harborough Transport Strategy (2016) (TRP12) identifies key transport issues and explores potential options to mitigate the impact of planned future growth in the town, thereby supporting the delivery of the Local Plan. It does not necessarily indicate whether any further growth of the town beyond that already committed, and including the Overstone Park allocation, would be acceptable in transport terms. The recommendations of the Study included improvements to encourage walking and cycling, junction improvements to tackle congestion, and the possibility of more significant changes to traffic movement, including a south-eastern bypass linking Northampton Road (A508) with Harborough Road (A6); and the reclassification of Welland Park Road and Coventry Road.

5.74 The Strategy is based on the four key objectives of;

1. Encouraging walking, cycling and public transport use;

2. Improving key junctions and general traffic flow around the town;

3. Public realm enhancements; and

4. Changes to the way that traffic is routed through and around the town.

5.75 The Strategy sets out 18 recommendations shown in Appendix B. The recommendations have been refined to address the issues identified in the Study work and validated during a consultation with each evaluated on the basis of key desired transport outcomes. The 18 recommendations are split into the following categories:

- Capacity / Congestion improvements – mainly to centrally located junctions;
- Changes to the network and traffic routing – including upgrading and reclassification of roads and provision of a south eastern bypass;
- Sustainable transport infrastructure / behaviour change initiatives;
- Safety Improvements;
- Traffic Management Improvements and Emergency Diversion Routes;
- HGV controls; and
- Highway maintenance

5.76 The Market Harborough Transport Strategy has an existing £2m of funding, secured through existing commitments, with further funding to come forward through the Local Plan allocations and additional development within and around the town. In addition, the Strategy will be used to secure public funding through growth bids.

5.77 Due to the need to provide mitigation works within Market Harborough in relation to the 2031 baseline scenario, all six Local Plan site allocations are required to provide a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy. This funding will assist in the mitigation of the junction capacity issues identified in the TIA (TRP2).

5.78 In addition to a contribution towards the Market Harborough Transport Strategy mitigation measures, each site allocation will be required to provide adequate mitigation for its own localised traffic impacts. These will be identified through a suitable Transport Assessment as part of the planning application for each site, and each site allocation policy also includes necessary highways improvement criteria as set out below:

<u>MH1 Overstone Park</u>

b. two points of vehicular access to the site from Kettering Road, and pedestrian and cycling access to Braybrooke Road and to the development to the west of the site;

e. necessary highways works and sustainable transport measures to ensure safe access into the town centre and onto the A6 including by pedestrians and cyclists;

f. a financial contribution to the mitigation measures outlined in the Market Harborough Transport Strategy, 2016;

l. parking provision, including cycle parking, and servicing to be in accordance with Leicestershire County Council 6Cs design guidance (TRP5);

<u>MH2 East of Blackberry Grange</u>

b. two points of access to the site, including a direct access from Northampton Road via the employment site allocated in Policy MH6;

c. necessary highways works and sustainable transport measures, including pedestrian and cycle access within the site and to the Brampton Valley Way, the leisure centre and the town centre;

d. parking provision, including cycle parking, and servicing to be in accordance with Leicestershire County Council 6Cs design guidance;

e. a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy, 2016;

MH3 Burnmill Farm

a. access to the site to be provided from Kingston Way;

b. a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy, 2016;

g. parking provision, including cycle parking, and servicing to be in accordance with Leicestershire County Council 6Cs design guidance;

MH4 Land at Airfield Farm

a. access to the site to be from Gallow Field Road, and subject to a transport assessment taking into account neighbouring permissions and any improvements required to the Gallow Field Road/Leicester Road/Bowden Road crossroads;

b. not detrimental to the delivery of the North West Market Harborough Strategic Development Area (SDA) and in general accordance with the SDA Master Plan;

c. provision of suitable footpath and cycle path links to the SDA and to services and facilities in Market Harborough;

d. a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy;

e. parking provision, including cycle parking, and servicing for each development parcel to be in accordance with Leicestershire County Council 6Cs design guidance

MH5 Airfield Farm Business Park

a. access via the existing Airfield Business Park access road from Leicester Road;

b. not detrimental to the delivery of the North West Market Harborough Strategic Development Area (SDA) and in general accordance with the SDA Master Plan;

c. provision of footpath and cycle path links to the SDA and to services and facilities in Market Harborough;

d. provision of transport infrastructure and other measures as identified by a transport assessment and travel plan;

e. a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy, 2016;

f. parking provision, including cycle parking, and servicing for each development parcel to be in accordance with Leicestershire County Council 6Cs design guidance;

g. each development parcel to be subject to approval and implementation of a user specific travel plan;

MH6 Compass Point Business Park

b. access from Northampton Road and the existing spine road;

c. provision of transport infrastructure and other measures as identified by a transport assessment and travel plan;

d. a financial contribution towards the mitigation measures outlined in the Market Harborough Transport Strategy, 2016;

e. parking provision, including cycle parking, and servicing for each development parcel to be in accordance with Leicestershire County Council 6Cs design guidance;

f. each development parcel to be subject to approval and implementation of a user specific travel plan;

g. footpath and cycle provision, linking the development with local services, residential areas and the wider rights of way network, including to the Brampton Valley Way footpath and cycleway;

5.79 The policy criteria set out above have been informed by a combination of:

- LCC Highways advice received through the Strategic Housing Land Availability Assessment (SHLAA) and Employment Land Availability Assessment (ELAA);
- bespoke connectivity criteria related to the location of the proposed site allocation;
- compliance with relevant Leicestershire County Council guidance in relation to parking and access; and
- for the employment allocations a policy criterion related to sustainable travel plans.

5.80 The above policy criteria will enable each site to be able to mitigate its own impacts, as well as create well connected and located developments. The impact of additional housing growth in Market Harborough on specific junctions is noted, but as future funding becomes available the mitigation measures set out in the Market Harborough Transport Strategy will assist in easing the junctions identified as operating over capacity against the 2031 reference case. In the shorter term and unrelated to the Local Plan, the permitted Market Harborough SDA will provide a link road bypassing the west of the town, enabling north to west routes to be undertaken avoiding the town centre, providing an element of relief. An additional south east bypass is identified in the Market Harborough Transport Strategy, but this remains a longer term objective, with significantly higher related costs than the other 17 recommendations outlined in the Strategy.

6. CONCLUDING REMARKS

6.1 Through the transport assessments undertaken on behalf of both the Council and site promoters, and subject to transport mitigation improvements as outlined above, the highway impacts resulting from the level of proposed development are not considered to be severe.

6.2 The Local plan sets out proposed housing growth centred on delivery of two SDAs at East of Lutterworth and north of Scraptoft, together with a wider spatial distribution including site allocations at Market Harborough and Fleckney, together with a high level of existing completions and commitments from 2011. Harborough District Council has commissioned or been a partner in three studies that have influenced the spatial distribution of development and choice of SDAs (Strategic Transport Assessment (TRP3), Traffic Impact Assessment (TRP2) and SE Leicester Transport Study (TRP15&16)), and worked with site promoters on their transport evidence.

6.3 Both SDAs proposed in the Local Plan result in an element of local highway impact, however are both more sustainable options than the proposed Kibworth SDA, resulting in lower journey times and therefore lower emissions across the district. The Lutterworth SDA is also shown to decrease traffic movements through the High Street, an air quality management area, and supporting the Local Plan vision and objectives. The Scraptoft SDA is well located in relation to Leicester, the main attractor of car trips outside of the district, and provides the best opportunity for channel shift through an increase in sustainable transport use. The two SDAs also have little impact on each other due to their locations, and also do not impact upon the already stressed A6 corridor and Market Harborough town centre.

6.4 Both SDAs proposed are shown to result in a localised traffic impact, with impacts on surrounding junctions. For Lutterworth, the Lutterworth Junctions Operational Assessment (Jacobs, December 2016) (TRP9) sets out the required mitigation necessary to four key junctions around Lutterworth and the proposed SDA (Whittle Island, M1 J20, new access on A4304 and new access on A426), concluding that subject to the junction mitigation identified, the junctions will operate with sufficient levels of capacity. In addition, the Assessment demonstrates a demonstrable reduction in HGV movements in the town centre for HGVs arriving from north of the two on the A426. Further modelling through LLITM as part of the Transport Assessment accompanying a planning application will provide more a more detailed assessment of the proposed junction works, whilst further work as part of a planning application will seek to identify appropriate trigger points for the mitigation works together with a timescale for the works.

6.5 For the Scraptoft SDA, the Transport Feasibility Assessment and Scoping Report (TRP4 & 14) submitted identify key junctions both around Scraptoft and within Leicester City that are at or close to capacity by 2031. The Transport Assessment identifies mitigation to the junctions around Scraptoft village and serving the proposed development, together with further off site works including amendments to the existing one way system through the village to improve traffic flow. Further modelling will take place using LLITM to inform the final Transport Assessment, including wider mitigation required to junctions outside of Harborough District.

6.6 Elsewhere in the District, the proposed spatial distribution of development is considered to be able to be accommodated without resulting in a severe impact on the highway network. The Market Harborough Transport Strategy (TRP12) has assessed a 2031 reference case for the town and identified a number of recommendations for highway improvements, with the proposed allocation policies in Market Harborough requiring a financial contribution towards these. Subject to funding becoming available through S106 agreements the recommendations as set out in the Strategy will be prioritised and implemented.

6.7 Moving forward beyond 2031, future Local Plans of the Council are expected to be in line with the emerging Strategic Growth Plan. The proposed development strategy set out in the Strategic Growth Plan is heavily influenced by the Midlands Connect Strategy (2017) (TRP13), with significant growth and transport infrastructure proposed for the District.

Appendix A

Strategic Transport Assessment – spatial distribution of options

Settlement Name	Notes	Definition	Easting	Northing	DWELLING OPTION No.				
					1	2	3	4	5
Market Harborough	Airfield Farm	Edge of town	471,798	288,752	1,350	1,350	1,350	1,350	1,350
	Linden	Suburban	471,962	287,177	120	120	120	120	120
	Overstone Park	Suburban	474,870	286,614	800	800	800	800	800
	Town centre residual	Town Centre	473,410	287,211	994	1,042	547	1,042	547
	Farndon Road	Suburban	472,065	286,422	140	140	140	140	140
	Northampton Road	Suburban	475,050	285,693	120	120	120	120	120
Scraptoft, Thurnby & Bushby	Station Lane	Suburban	464,658	304,970	598	1,086	462	1,086	462
Lutterworth	Leics Road	Suburban	454,747	286,021	150	150	150	150	150
	Town centre residual	Town Centre	454,412	284,288	432	432	432	432	432
	East of M1		455,290	284,084	0	0	0	2,500	0
Billesdon	NP commitment	Suburban	472,108	303,065	35	35	35	35	35
	Centre	Town Centre	471,920	302,820	50	0	95	0	95
Fleckney	Centre	Town Centre	464,972	293,408	468	413	468	413	468
Great Glen	Centre	Town Centre	465,621	297,902	116	0	276	0	276
Husbands Bosworth	Grid to Welford Road	Suburban	464,224	283,916	51	45	51	45	51
Kibworth	Centre	Town Centre	468,402	294,325	104	0	344	0	344
	East of A6 (add link road)	Suburban	468,990	294,202	0	0	0	0	2,000
Ullesthorpe	Centre	Town Centre	450,516	287,724	44	7	88	7	88
Bitteswell	Centre	Town Centre	453,638	285,888	63	38	84	38	84
Dunton Bassett	Centre	Town Centre	454,725	290,824	59	59	59	59	59
Gilmorton	Centre	Town Centre	457,285	287,872	69	51	69	51	69
Great Bowden	Centre	Town Centre	474,358	288,848	134	71	180	71	180
Great Easton	Centre	Town Centre	484,962	292,948	50	11	78	11	78
Houghton on the Hill	Centre	Town Centre	467,986	303,613	77	77	77	77	77
Medbourne	Centre	Town Centre	480,030	293,352	57	38	58	38	58
Swinford	Centre	Town Centre	456,998	279,394	50	50	50	50	50

Settlement Name	Notes	Definition	Easting	Northing	DWELLING OPTION No.					
					6	7	8	9	10	11
Market Harborough	Airfield Farm	Edge of town	471,798	288,752	1,350	1,350	1,350	1,350	1,350	1,350
	Linden	Suburban	471,962	287,177	120	120	120	120	120	120
	Overstone Park	Suburban	474,870	286,614	600	600	600	0	600	600
	Town centre residual	Town Centre	473,410	287,211	729	1,383	207	440	175	299
Scraptoft, Thurnby & Bushby	Station Lane	Suburban	464,658	304,970	303	478	169	73	158	182
	PUA SDA	Suburban	465,781	304,048	0	0	0	0	0	500
	PUA SDA	Suburban	464,728	305,519	0	0	0	0	0	500
Lutterworth	Leics Rd	Suburban	454,747	286,021	150	150	150	150	150	150
	Town centre residual	Town Centre	454,412	284,288	359	495	238	238	225	248
	East of M1	Suburban	455,290	284,084	0	0	0	2,000	0	0
Billesdon	NP commitment	Suburban	472,108	303,065	35	35	35	35	35	35
	Centre	Town Centre	471,920	302,820	31	0	59	8	17	19
Fleckney	Centre	Town Centre	464,972	293,408	440	204	572	307	370	385
Great Glen	Centre	Town Centre	465,621	297,902	64	0	169	0	17	25
Husbands Bosworth	Grid to Welford Rd	Suburban	464,224	283,916	68	20	99	40	52	55
Kibworth	Centre	Town Centre	468,402	294,325	56	0	208	0	0	0
	East of A6	Suburban	468,990	294,202	0	0	0	0	1,200	0
Ullesthorpe	Centre	Town Centre	450,516	287,724	27	0	54	7	15	17
Bitteswell	Centre	Town Centre	453,638	285,888	40	17	53	27	33	34
Dunton Bassett	Centre	Town Centre	454,725	290,824	72	33	94	50	61	62
Gilmorton	Centre	Town Centre	457,285	287,872	65	23	91	41	52	54

Great Bowden	Centre	Town Centre	474,358	288,848	83	3	114	54	68	71
Great Easton	Centre	Town Centre	484,982	292,948	32	6	51	17	23	25
Houghton on the Hill	Centre	Town Centre	467,988	303,613	130	57	172	89	108	112
Swinford	Centre	Town Centre	456,988	279,394	51	24	67	38	43	45
Lubenham	Centre	Town Centre	470,538	287,379	72	32	95	49	60	63
Magna Park	Local need	Edge of town	450,232	284,805	101,000 sqm B8	101,000 sqm B8	101,000 sqm B8	101,000 sqm B8	101,000 sqm B8	101,000 sqm B8
	Regional need	Edge of town	452,030	284,181	279,000 sqm B8	279,000 sqm B8	279,000 sqm B8	279,000 sqm B8	279,000 sqm B8	279,000 sqm B8

Appendix B

Market Harborough Transport Study recommended schemes

Capacity / Congestion Improvements	
R1	With the assistance of micro-simulation[6] traffic modelling, undertake option appraisals for capacity improvements at the following key junctions: (i) A6 / B6047 (aka McDonalds Roundabout); (ii) The Square / St Mary's Road / Coventry Road (town centre); (iii) Northampton Road / Springfield Street / Welland Park Road; (iv) A4304 St Mary's Road / Kettering Road / Clarence Street; (v) A4304 Rockingham Road / Gores Lane; (vi) A6 / Harborough Road / Dingley Road / A4304; and (vii) Sainsbury's store entrance / Springfield Street.
R2	As part of the refinement of the analysis so far undertaken, the Authority will analyse the extent of the problem of blocking at local junctions which could be mitigated by the provision of yellow box markings.
Recommendations that result in changes to the network and traffic routing	
R3	With the assistance of micro-simulation traffic modelling consider the upgrading of Welland Park Road to become the A4304, with a respective downgrading of Coventry Road. Determine the associated engineering, accommodation and complementary works to facilitate this work.
R4	Consider the principle of providing a relief road between the A508 and A6 to the south-east of the town as a long term aspiration.
Sustainable transport infrastructure / behaviour change initiatives	
R5	Extend and enhance the walking and cycling network.
R6	Make localised public transport infrastructure improvements.
R7	Identify a suite of tailored behaviour change initiatives to encourage modal shift in travel choice towards active and sustainable travel.
R8	Investigate walking / cycling routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking

[6] Road traffic micro-simulation models model the movements of individual vehicles travelling around road networks by using car following, lane changing and gap acceptance rules. They are popular for the development and evaluation of a broad range of road traffic management and control systems. They are particularly appropriate for examining certain complex traffic problems (e.g. complex junctions),

	and cycling infrastructure.
R9	Undertake further analysis work to determine the suitability of additional pedestrian crossings within the Town Centre.
R10	Enhancement of the infrastructure supporting transport interchanges in the town including the nearby rail and bus terminals thereby increasing the attractiveness of such assets for those on foot or cycle.
Safety Improvements	
R11	Continue to monitor Road Traffic Collisions (RTC) within the study area. If an RTC occurs within, or adjacent to, a proposed improvement scheme proportionate efforts should be made where appropriate to include complementary measures that could reduce further RTCs.
Traffic Management Improvements and Emergency Diversion Routes	
R12	Devise and implement a new strategy for traffic signing across the study area.
R13	Review parking controls in the vicinity of the town centre and rail station, with particular regard to the need/benefit of further permit parking zones.
R14	Sites with recorded speeds in excess of the Association of Chief Police Officers enforcement threshold should be reviewed with a view that, where viable and cost effective, measures will be developed to improve compliance with the stipulated speed limit.
R15	Identify opportunities to divert Highways England emergency diversion routes away from the town centre (e.g. at times of a closure on the A14).
HGV controls	
R16	Identify undesirable routes for HGVs and impose suitable prohibitions. Whilst the promotion of a town wide environmental weight restriction would be preferable, two key routes are particularly vulnerable to exploitation by inappropriate HGV traffic and should be adopted as a minimum: (i) Ashley Road / Kettering Road between the A4304 and the A6 (ii) Bath Street / Western Avenue between the A508 and Farndon Road.
R17	Send updated map to 'sat-nav' contacts, advising of HGV controls following on from recommendation R16.
Highway Maintenance	
R18	In light of the size and scope of the study, incorporate / consider maintenance activities in relation to improvement proposals.

Appendix C – Email correspondence between Highways England and Harborough District Council

From: Pinnock, Samantha [mailto:Samantha.Pinnock@highwaysengland.co.uk]
Sent: 30 May 2017 11:31
To: Keith Reed
Subject: [SMG-SAFP] [EXTERNAL] Re: Lutterworth East SDA - Strategic Transport Assessment

Hi Keith,

Yes, no objection in principle including the motorway crossing.

Thanks

Samantha

-------- Original message --------

From: Keith Reed <K.Reed@harborough.gov.uk>

Date: 30/05/2017 09:38 (GMT+00:00)

To: "Pinnock, Samantha" <Samantha.Pinnock@highwaysengland.co.uk>

Cc: Tess Nelson <t.nelson@harborough.gov.uk>, '"keith.keeley@envisionuk.net"' <keith.keeley@envisionuk.net>, Jessica Dewar <J.Dewar@harborough.gov.uk>, David Atkinson <D.Atkinson@harborough.gov.uk>

Subject: RE: Lutterworth East SDA - Strategic Transport Assessment

Hi Samantha

Thank you for this. I assume this means that you have no objections in principle. Can I also assume the same in relation to the new motorway crossing to access the northern part of the site?

Regards

Keith

From: Pinnock, Samantha [mailto:Samantha.Pinnock@highwaysengland.co.uk]
Sent: 30 May 2017 09:19
To: Keith Reed
Subject: [SMG-SAFP] [EXTERNAL] RE: Lutterworth East SDA - Strategic Transport Assessment

Good morning Keith,

Based on the assumptions presented, we believe that the proposed highway improvements are likely to be suitable, but the interaction between junctions will have to be closely monitored and carefully designed.

The motorway crossing will have to be subject to AiP procedures with our Safety and Engineering Standards team, but we don't forsee that this should present any particular difficulties.

Kind Regards

Samantha

From: Keith Reed [mailto:K.Reed@harborough.gov.uk]
Sent: 15 May 2017 09:47
To: Pinnock, Samantha
Cc: Seldon, Martin; Janna.Walker@leics.gov.uk; Andrew Winnington (Andrew.Winnington@leics.gov.uk); Andy.Yeomanson@leics.gov.uk; Posford, Clive; 'Sanchez Racionero, Jorge'; David Atkinson; Jessica Dewar; Tess Nelson; 'Tenekeci, Goktug'; 'Gary Stephens'; 'Simon Lawrence'
Subject: RE: Lutterworth East SDA - Strategic Transport Assessment

Dear Samantha

In the light of this response from Jorge, and in response to the confidential focussed engagement that was sent to you on 9th May, I wonder if it would be possible for you to confirm that you have no objections **in principle** to the East of Lutterworth SDA proposal for 2750 dwellings and 23 hectares of employment land, including no objections in principle to the additional crossing over the motorway required to allow the completion of the 'spine road' before completion of 1250 dwellings, subject of course to whatever provisos you feel are necessary.

Many thanks – do not hesitate to call if you need to discuss further.

Regards

Keith

From: Sanchez Racionero, Jorge [mailto:Jorge.SanchezRacionero@aecom.com]
Sent: 03 May 2017 11:01
To: Posford, Clive
Cc: HE instructions; Pinnock, Samantha; Seldon, Martin; Janna.Walker@leics.gov.uk; Andrew Winnington (Andrew.Winnington@leics.gov.uk); Keith Reed; Andy.Yeomanson@leics.gov.uk; Jonathan.Hale@jacobs.com; Lepidi, Sara; Godfrey, Daniel;

Jamous, Mohamad
Subject: [EXTERNAL] FW: Lutterworth East SDA - Strategic Transport Assessment

Hi Clive,

We have now had the opportunity to review the LinSig models that you provided. We have used them as a basis to undertake further checks of future operation of the M1 J20 with proposed Lutterworth East SUE development in place and your latest highway improvement proposals (signalisation at M1 J20, A4303/A426 Frank Whittle signalised cross-roads and proposed signalised site accesses on the A4304).

Based on the assumptions that you have presented, we believe that the proposed highway improvements are likely to be suitable, but the interaction between junctions will have to be closely monitored and carefully designed. Considering the close proximity to M1 J20 of proposed signalised junctions at the west (proposed A4303/A426 Frank Whittle signalised cross-roads) and at the east (proposed signalised site accesses on the A4304), there is risk that if these junctions are not suitably coordinated then potential blocking back issues at the exit arms could impact the operation of M1 J20.

Finally we state that our comments in this email solely relate to the proposal for allocating Lutterworth East SUE development in the Local Plan rather than in support of any planning application. In case a Transport Assessment is submitted in future in support of a planning application, then more detailed information and work will be required of the applicant in line with Circular 02/2013.

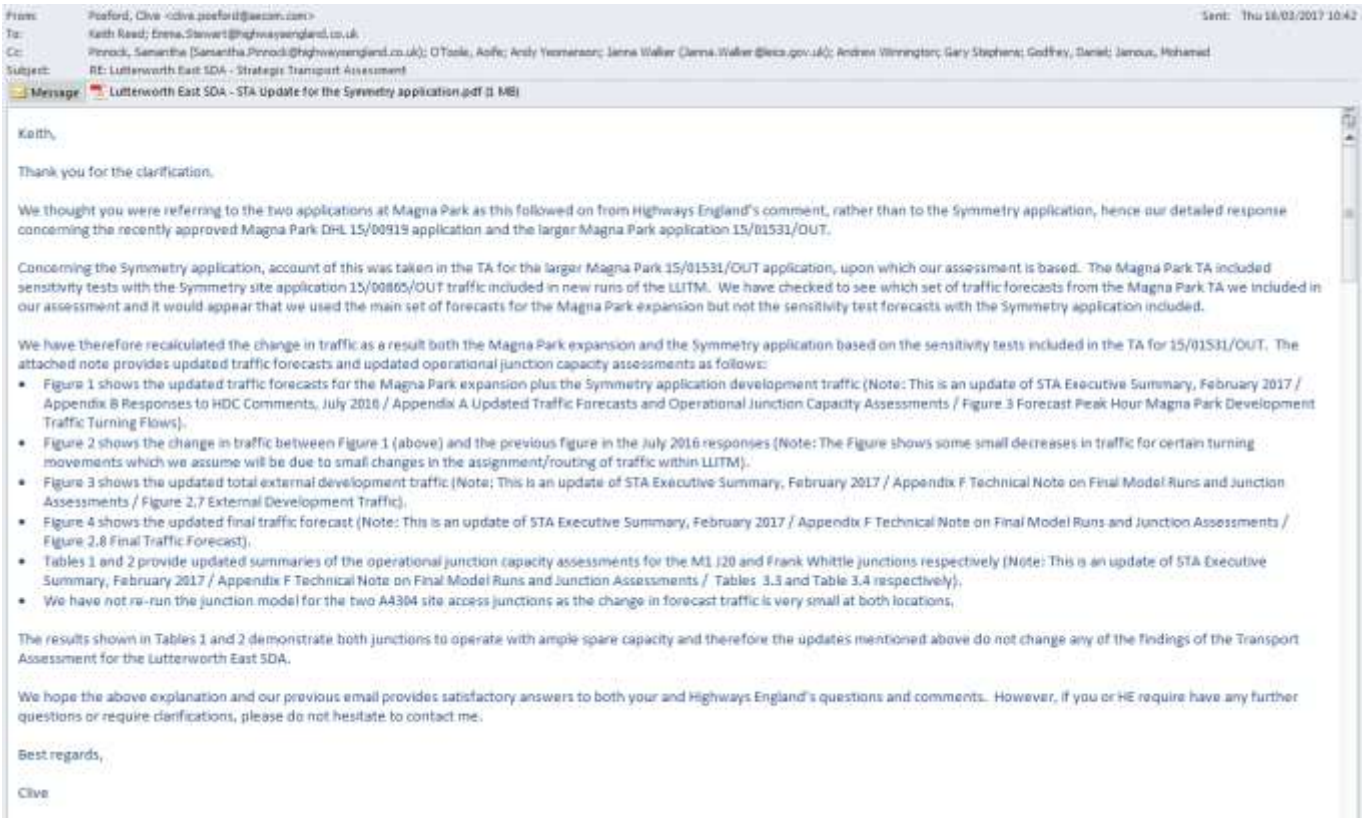
I trust this is helpful but if you have any query please tell me.

Thank you,

Kind regards,

Jorge Sanchez Racionero, MEng (Hons), MSc (Eng)
Consultant, Transportation

Appendix D – Email correspondence from AECOM on behalf of the site promoters regarding total development at East of Lutterworth SDA and Magna Park used



From: Posford, Clive <clive.posford@aecom.com> Sent: Thu 16/02/2017 10:42
To: Keith Reed; Emma.Stewart@highwaysengland.co.uk
Cc: Pinnock, Samantha (Samantha.Pinnock@highwaysengland.co.uk); O'Toole, Aoife; Andy Yeomanson; Janna Walker (Janna.Walker@leics.gov.uk); Andrew Winnington; Gary Stephens; Godfrey, Daniel; Janoua, Mohamad
Subject: RE: Lutterworth East SDA - Strategic Transport Assessment
Message Lutterworth East SDA - STA Update for the Symmetry application.pdf (1 MB)

Keith,

Thank you for the clarification.

We thought you were referring to the two applications at Magna Park as this followed on from Highways England's comment, rather than to the Symmetry application, hence our detailed response concerning the recently approved Magna Park DHL 15/00919 application and the larger Magna Park application 15/01531/OUT.

Concerning the Symmetry application, account of this was taken in the TA for the larger Magna Park 15/01531/OUT application, upon which our assessment is based. The Magna Park TA included sensitivity tests with the Symmetry site application 15/00865/OUT traffic included in new runs of the LLITM. We have checked to see which set of traffic forecasts from the Magna Park TA we included in our assessment and it would appear that we used the main set of forecasts for the Magna Park expansion but not the sensitivity test forecasts with the Symmetry application included.

We have therefore recalculated the change in traffic as a result both the Magna Park expansion and the Symmetry application based on the sensitivity tests included in the TA for 15/01531/OUT. The attached note provides updated traffic forecasts and updated operational junction capacity assessments as follows:

- Figure 1 shows the updated traffic forecasts for the Magna Park expansion plus the Symmetry application development traffic (Note: This is an update of STA Executive Summary, February 2017 / Appendix B Responses to HDC Comments, July 2016 / Appendix A Updated Traffic Forecasts and Operational Junction Capacity Assessments / Figure 3 Forecast Peak Hour Magna Park Development Traffic Turning Flows).
- Figure 2 shows the change in traffic between Figure 1 (above) and the previous figure in the July 2016 responses (Note: The Figure shows some small decreases in traffic for certain turning movements which we assume will be due to small changes in the assignment/routing of traffic within LLITM).
- Figure 3 shows the updated total external development traffic (Note: This is an update of STA Executive Summary, February 2017 / Appendix F Technical Note on Final Model Runs and Junction Assessments / Figure 2.7 External Development Traffic).
- Figure 4 shows the updated final traffic forecast (Note: This is an update of STA Executive Summary, February 2017 / Appendix F Technical Note on Final Model Runs and Junction Assessments / Figure 2.8 Final Traffic Forecast).
- Tables 1 and 2 provide updated summaries of the operational junction capacity assessments for the M1 J20 and Frank Whittle junctions respectively (Note: This is an update of STA Executive Summary, February 2017 / Appendix F Technical Note on Final Model Runs and Junction Assessments / Tables 3.3 and Table 3.4 respectively).
- We have not re-run the junction model for the two A4304 site access junctions as the change in forecast traffic is very small at both locations.

The results shown in Tables 1 and 2 demonstrate both junctions to operate with ample spare capacity and therefore the updates mentioned above do not change any of the findings of the Transport Assessment for the Lutterworth East SDA.

We hope the above explanation and our previous email provides satisfactory answers to both your and Highways England's questions and comments. However, if you or HE require have any further questions or require clarifications, please do not hesitate to contact me.

Best regards,

Clive