Project:	**Highways England Spatial Planning Arrangement 2016-2020**	Job No:	**60600479 / SF001.002**
Subject:	**Fareham Draft Local Plan and Infrastructure Delivery Plan Review**		
[redacted]	[redacted]	Date:	**14th February 2020**
[redacted]	[redacted]	Date:	**19th February 2020**
[redacted]	[redacted]	Date:	**20th February 2020**
[redacted]	[redacted]	Date:	**20th February 2020**

Executive Summary

Following a review of the Regulation 18 Consultation documents, including the 2036 Local Plan Supplement, Interim Draft Infrastructure Delivery Plan and Sub-Regional Transport Model Report, prepared in support of the 2036 Fareham Local Plan, AECOM make the following recommendations.

A number of the following recommendations have been carried forward from AECOM's TN01 which reported on a review of a previous version of the Sub-Regional Transport Model Report and are still relevant.

Recommendations regarded as critical to the acceptability of the forthcoming Local Plan

1. A model test should be run for one or more scenarios in which the proposed Local Plan allocations go ahead either without Welborne and its mitigation scheme at M27 Junction 10; or in which Welborne proceeds to deliver 1,160 dwellings but delivery of the mitigation scheme at M27 Junction 10 is delayed (AECOM TN01 para 4.11).
2. A more detailed junction capacity model of the Segensworth roundabout should be provided and mitigation measures should be considered to minimise the risk of a queue of traffic tailing back to M27Junction 9 (para 5.27 and AECOM TN01 para 5.14).
3. More detailed junction capacity models should be provided in respect of M27 Junctions 9 and 11 to gain a better understanding of the impact of the proposed Local Plan allocations on these junctions and the type of mitigation required. Mitigation may need to be considered at the M27 Junction 11 westbound off slip to minimise the risk of a queue of traffic tailing back to the main line carriageway of the M27 (AECOM TN01 paras 3.3, 5.15 and 5.19).
4. The reduction in the number of dwellings in the 2036 Do Minimum scenario relative to the scenarios previously tested should be explained and, if necessary, an alternative 2036 Do Minimum run of the SRTM commissioned (para 5.9).
5. As soon as the relevant housing numbers become available, a run of the SRTM should be commissioned to quantify the impact of additional growth to come forward through the two Strategic Growth Areas, and presented for scrutiny, together with supporting evidence to support any reductions in development assumed in the neighbouring Local Planning Authorities (para 5.10).

Recommendations regarded as important but not critical to the acceptability of the forthcoming Local Plan

6. Clarification should be provided on the way in which the proposed development 'North of Whiteley' has been incorporated in to the modelling and the nature of the junction improvements assumed to have taken place at M27 Junction 9 in the scenarios modelled (AECOM TN01 para 4.4).
7. The error in the 'DM2a Summary Table' tab of the spreadsheet should be corrected (AECOM TN01 para 5.20).

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8. The volume / capacity (v/c) plots should be provided in the SRTM Report to gain an understanding of the difference between the 2036 Baseline and 2036 Do Minimum scenarios on the M27 main line (para 5.17).

AECOM advise Highways England to formally raise the concerns highlighted in this note in the consultation response to the Draft 2036 Local Plan Supplement and Interim Draft Infrastructure Delivery Plan and to continue to work with Hampshire County Council and the other stakeholders to resolve the issues identified, before making a formal response to the emerging Local Plan.

1. Introduction

1.1. This Technical Note (TN) documents a review, carried out by AECOM on behalf of Highways England, of the Fareham Local Plan (the LP). The purpose of this review is to understand the impact of the proposed Local Plan site allocations within Fareham on the Strategic Road Network (SRN) and to determine whether sufficient highway infrastructure and mitigation is proposed to accommodate the planned growth.

1.2. The documents, issued by Fareham Borough Council (FBC) for consultation under Regulation 18 (Town and Country Planning Regulations 2012) and included in this review are as follows:

- Fareham Local Plan 2036 Supplement (LP Supplement);
- Interim Draft Infrastructure Delivery Plan (IDP), January 2020; and
- Fareham Local Plan Sub-Regional Transport Model Outputs Summary Report (SRTM Report), January 2020.

1.3. The LP Supplement sets out the plan for future development within Fareham and is an extension of the 2017 Draft LP. The LP supplement has been produced in response to changes to the NPPF, which resulted in an increased housing need for Fareham, and therefore sets a new housing target which supersedes that identified in the 2017 Draft LP.

1.4. The Interim Draft IDP is a supporting document to the LP Supplement. It outlines the existing and planned infrastructure improvements required to accommodate LP growth. This TN covers a review of the 'Highways and Transport' section of the IDP.

1.5. The SRTM report forms part of the evidence base for the LP Supplement. AECOM have previously reviewed the initial version of this report (issued July 2019) on behalf of Highways England, which is reported in our TN01, dated October 2019 and in which AECOM made a number of recommendations for additional assessment to be carried out to support the LP.

1.6. AECOM will review the latest LP consultation documents listed above against our previous recommendations from TN01 to determine whether these have been addressed. This TN02 will highlight any potential points of concern to Highways England and advise whether it would be appropriate to make any representations to the consultation documents, with a view to protecting the safe and reliable operation of the SRN.

1.7. The Regulation 18 Local Plan consultation period is open until **Sunday 1st March 2020**.

1.8. For ease of reference, AECOM's main comments and recommendations are presented in bold and underlined text throughout the note. Recommendations regarded as critical to the acceptability of the LP are coloured **red.** Recommendations regarded as important but not critical to the acceptability of the LP are highlighted in **amber.**

2. Background

2.1. Fareham Borough Council is the Local Planning Authority for a significant area within South Hampshire between the cities of Southampton and Portsmouth. As such it is a growth area and the Local Planning Authority aspires to allocate a minimum of 520 dwellings per annum over the 16-year local plan period (between 2020 and 2036).

2.2. Fareham is served by the M27 Motorway, with M27 Junctions 9, 10 and 11 lying within the borough. Highways England are therefore concerned with the impact of planned growth on the safe and free-flow of traffic using the M27 and whether sufficient infrastructure and mitigation is proposed to accommodate this growth.

2.3. The Fareham LP consultation documents (listed in para 1.2 of this TN) have been reviewed in the context of DfT Circular 02/2013[1] and Highways England's 'Planning for the Future' guidance[2], which provides an outline of matters that will be considered when Highways England are engaged in the local plan process. It states that Highways England will *"seek to provide a recommendation as to the soundness of proposed policies and proposals in relation to their interaction with the SRN".*

3. Local Plan 2036 Supplement

3.1. FBC's current adopted local plan comprises three parts as follows:

- Local Plan Part 1 (LP1) Core Strategy (adopted in August 2011);
- Local Plan Part 2 (LP2) Development Sites & Policies (adopted in June 2015); and
- Local Plan Part 3 (LP3) The Welborne Plan (adopted in June 2015).

3.2. The emerging Draft LP to 2036 (including the LP Supplement) will replace the adopted LP1 and LP2. LP3 covers the strategic garden village development at Welborne for approx. 6,000 dwellings. The adopted LP3 will not be replaced by the 2036 plan.

3.3. The LP Supplement forms an extension to the 2017 Draft LP which has already been consulted on. The development strategy and housing sections of the 2036 plan have been updated in the LP Supplement to reflect the increased housing requirements for Fareham. Policy references are to be confirmed in the Publication Draft of the LP, which is scheduled to be released for consultation in Spring 2020.

3.4. The LP Supplement states a requirement for 520 dwellings per annum to be delivered between 2020 and 2036 (totalling 8,320 dwellings). In addition to this, FBC propose to apply a 'buffer' of up to 1,248 due to the high reliance on the Welborne Garden Village coming forward. There is also an allowance for 'unmet need' (from neighbouring local planning authorities) and a windfall allowance, however, the numbers of dwellings in each of these categories is still to be confirmed. Para 3.9 of the LP Supplement states that the final total local plan housing requirement will be confirmed in the Publication Draft LP.

3.5. It should be noted that FBC have not requested comments on the sites already included in the 2017 Draft LP as part of this consultation; only the LP Supplement is being consulted on.

3.6. The LP Supplement was informed by the 'Issues and Options' consultation which took place in the summer of 2019. Highways England responded to the 2019 consultation to highlight that *"consideration will need to be given to assessing the cumulative impact of new sites that might be taken forward together with already planned growth in Fareham on the SRN"*. Potential growth in sites around M27 Junction 11 were stated as being of particular interest to Highways England.

3.7. The proposed development sites and growth areas included in the LP Supplement with the potential to impact the SRN are summarised in the following paragraphs.

Housing Site: Rookery Farm, Sarisbury

3.8. A number of additional small residential sites have been identified in the LP Supplement. Of those listed, Rookery Farm, Sarisbury (proposed Allocation Site HAX) may be of interest to Highways England due to its proximity to M27 Junction 9. The site has an indicative capacity for 150 dwellings and therefore, as a standalone site, its impact on the SRN is likely to be minimal. Cumulatively, traffic generated by the site could exacerbate any existing or future capacity issues at the junction.

[1] The Strategic Road Network and the Delivery of Sustainable Development.

[2] The Strategic Road Network: Planning for the Future, A Guide to Working with Highways England on Planning Matters (September 2015).

However, the wording of proposed Policy HAX includes a requirement to address noise impact from the M27 and to provide (or to fund) off-site highway improvement works.

3.9. In addition, Policy INF2 of the 2017 Draft LP: Sustainable Transport states that: "New development should offer maximum flexibility in the choice of travel modes and should reduce the need to travel by motor vehicle through the promotion of sustainable and active travel modes." and that "development will be permitted where it does not demonstrate a severe cumulative impact (causing demonstrable harm) on the operation, safety or accessibility to the local or strategic highway networks" and where it "Mitigates impacts on the local or strategic highway networks arising from the development itself, or the cumulative effects of development on the network, through provision of improvements and enhancements to the existing network to accommodate additional traffic, or contributions towards necessary or relevant transport improvements".

3.10. Subject to the implementation in full of the proposed wording of Policies INF2 and HAX, AECOM see no reason for Highways England to object to this proposed allocation site.

Strategic Growth Areas

3.11. The LP Supplement proposes two Strategic Growth Areas (SGAs) within the Borough of Fareham, which are intended to play a role in meeting the total housing requirement, particularly in relation to unmet need. The LP Supplement states that these are not allocations and that further work is required to understand the role these areas could play in meeting the overall housing requirement. They may therefore be seen as strategic additional sites to be held in reserve as a precaution against the need for Fareham to accommodate further unmet demand for housing in the South Hampshire area. Para 3.8 of the LP Supplement states that Partnership for South Hampshire (PfSH) is currently working to identify how Fareham and its neighbouring authorities may address unmet need. This work is not yet complete and para 3.8 sets the allocation of SGAs in this context.

3.12. The scale and land use composition of development in the proposed SGAs is not defined in the LP Supplement. The SGA policy stipulates that development should come forward with a masterplan for the area and that it should be supported by a transport assessment and strategy together with an infrastructure delivery plan. However, Highways England require further information regarding the traffic impacts forecast to arise from the SGAs and for them to be included in a SRTM assessment scenario in order to understand the worst case (para 5.10 of this TN refers).

North of Downend

3.13. The proposed SGA to the north of Downend is located to the south east of M27 Junction 11 and is therefore of primary interest to Highways England. An extract from the LP Supplement, showing the boundary of the growth area location is provided in Figure 1 below.

Figure 1: 'North of Downend' Strategic Growth Area Location

3.14. Part of the growth area (land to the east of Downend Road) features as a housing allocation in the 2017 Draft LP (HA4) for up to 350 dwellings. A planning application for the site was rejected at appeal for reasons relating to pedestrian access over the railway. A housing development in this location is still supported by FBC: however, this location is now included as part of a wider growth area in the LP Supplement. Following rejection of the planning application, it is assumed that the 'land east of Downend Road' site will not be included in the Publication Draft LP as an individual housing allocation but will instead form part of the SGA. AECOM therefore assume that this particular SGA will be greater than 350 dwellings, however the scale and land use composition of the SGA is not known. Access proposals are not defined in the LP Supplement, but it is likely that a growth in this location will be reliant on routing via the A27/ A32 Delme roundabout and M27 Junction 11.

South of Fareham

3.15. The proposed SGA south of Fareham is further from the SRN, however its cumulative impact may have the potential to affect M27 Junctions 9, 10 and 11. An extract from the LP Supplement, showing the boundary of the growth area location is provided in Figure 2 below.

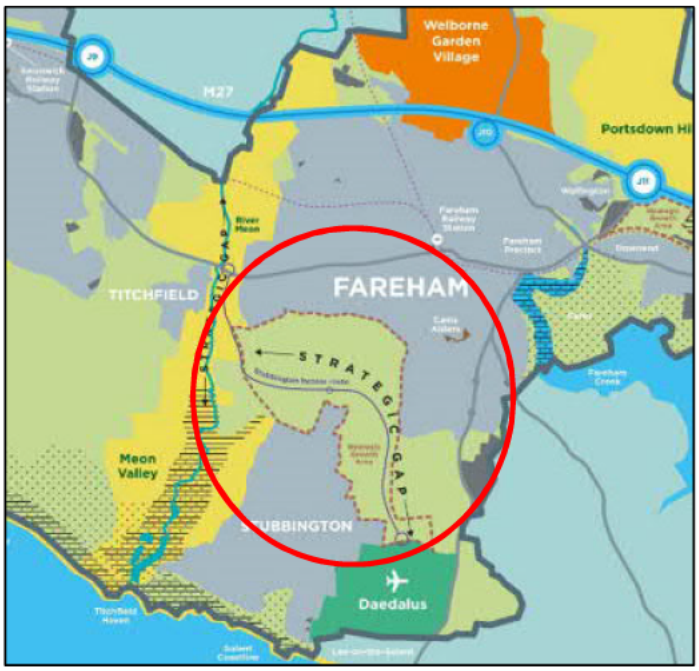

Figure 2: 'South of Fareham' Strategic Growth Area Location

4. Interim Draft Infrastructure Delivery Plan

4.1. FBC have prepared the Interim Draft IDP in support of the LP Supplement. It is dated January 2020 and identifies current and planned infrastructure across Fareham required to support LP growth. AECOM's review refers to highways and transportation infrastructure only.

4.2. Infrastructure associated with the Welborne Garden Village has been identified in the Welborne Plan (LP3) and is not included in the IDP.

4.3. The IDP states that the specific infrastructure requirements of each of the proposed site allocations within the 2036 LP will be produced and submitted as part of the evidence base for the Publication version of the plan. This is anticipated in the spring or summer of 2020. Section 7 of the IDP 'Infrastructure Requirements of Allocated Sites' is to be confirmed.

4.4. The current consultation on the IDP specifically relates to identifying the additional infrastructure required to support the proposed housing and employment site allocations. The consultation email from FBC to Highways England contains a pro-forma to be completed by consultees (infrastructure providers) along with a list and maps of all LP housing/employment allocations and the SGAs. The pro-forma includes a table where each LP development site can be listed along with details of the infrastructure requirements for each site. The infrastructure requirements are categorised into 'site specific' and 'cumulative' requirements. The planned strategic highway infrastructure provision is already referred to in the 'Highways and Transport Infrastructure' section of the IDP (page 70 relates to the SRN).

4.5. Under 'planned provision' the IDP refers to the following current strategic highway schemes in Fareham:

- Smart Motorway Programme for the M27 between Junction 4 (M3 Interchange) and Junction 11 (Fareham);
- M27 Junction 9 and Parkway South roundabout (HCC scheme); and
- M27 Junction 10 improvements (as part of the Welborne development).

4.6. In addition, there is a Hampshire County Council scheme at the A27/ A32 Delme roundabout. However, this is limited to a signage and lining strategy and the assumption must be that it does not include any significant additional highway capacity.

4.7. The improvements at M27 Junction 10 do not form part of the IDP but will provide an overall strategic benefit and will help to accommodate LP growth, which the IDP acknowledges. There is a question of how reliant the 2036 LP is on the M27 Junction 10 improvements to provide additional capacity. Highways England need to understand the impact of LP growth on the SRN if, for any reason, the improvements at M27 Junction 10 do not go ahead or are delayed. Alternatively, an understanding of how much LP growth could go ahead without the M27 Junction 10 improvements is required. AECOM have raised this point previously in our TN01 and recommended the requirement for such a scenario to be assessed in the SRTM. This is discussed further in the following Section.

5. Sub-Regional Transport Model Report

5.1. An assessment of the traffic impact of the local plan sites has been undertaken using a run of the Solent Transport Sub-Regional Transport Model (the 'SRTM') which is maintained and run by Systra on behalf of a consortium of Local Planning and Highway Authorities in South Hampshire. Highways England is stakeholder in the SRTM and its suitability for use in assessing the potential impact of major development sites and transport interventions has been previously agreed (AECOM's TN01 refers).

5.2. AECOM's TN01 documents a review of the July 2019 SRTM Modelling Report which supported the 'Issues and Options' LP consultation in the Summer of 2019. The SRTM assessment has since been updated in the January 2020 SRTM Model Output Summary Report to account for the increased housing requirement for Fareham as covered by the LP Supplement. AECOM note that the majority of our previous recommendations from TN01 relating to the SRTM assessment have not been addressed in the latest SRTM report. These recommendations have therefore been repeated in Table 1 of this note for ease of reference.

Assessment Scenarios

5.3. The updated SRTM includes fewer assessment scenarios than the previous submission which tested various levels of potential development in the Fareham. The LP assessment includes two scenarios in the SRTM as follows:

- **Scenario 1: 2036 Baseline** - No Fareham LP development except for committed sites (including Welborne and M27 J10 improvements); and
- **Scenario 2: 2036 Do Minimum** - Full Fareham LP development but no transport mitigation**.**

Scenario 1: 2036 Baseline

5.4. The 2036 Baseline represents a situation in which no further growth takes place in Fareham, other than completed or committed development as presented in Table 3-1 and Figure 3-1, and infrastructure as listed in Appendix A, of the SRTM Report. This includes a total of 6,118 dwellings and approx. 14,000m² of employment land use. Outside of Fareham, growth has been accounted for in accordance with adopted Local Plans and TEMPro v7.2 growth projections.

5.5. Appendix A of the SRTM Report provides a list of committed sites included in the 2036 Baseline scenario. This scenario *includes* prospective improvements at M27 Junctions 8 and 9, A3(M) Junction 3 and the conversion of the M3 and M27 to Smart Motorways, together with a number of local road improvements associated with committed development sites. It also *includes* the proposed Welborne Garden Village, and its associated proposals to improve M27 Junction 10. The SRTM Report states that Welborne has been included in the baseline as it is considered to be committed. Welborne accounts for 4,260 dwellings within the LP period up to 2036 (SRTM paras 1.2.4 and 3.2.2 refer).

5.6. AECOM's TN01 recommended that clarification should be provided as to whether the proposed development at 'North of Whiteley' is explicitly modelled in the 2036 Baseline. AECOM understand that this development lies within the Winchester City Council Local Planning Authority area, is now consented, and will deliver a significant improvement to M27 Junction 9. **This point does not appear to have been addressed in the updated SRTM Report and therefore AECOM repeat our recommendation from TN01 (see Table 1 of this TN).**

Scenario 2: 2036 Do Minimum

5.7. This scenario is the same as the 2036 Baseline in that it includes completed and committed developments and infrastructure and the Welborne Garden Village with M27 Junction 10 improvements. No specific highway mitigation (other than that committed) is included. In addition to the growth accounted for in the 2036 Baseline, the 2036 Do Minimum scenario includes the full quantum of proposed development contained in the 2036 LP, totalling 12,169 dwellings (an increase of some 6,000 over the baseline) and up to approx. 200,000m² of employment land use.

5.8. The LP Supplement does not provide the total housing requirement figure to 2036 and therefore AECOM have taken the total LP development figures in the 2036 Do Minimum scenario, as presented in in Table 3-2 of the SRTM Report, as read.

5.9. AECOM note that the total number of dwellings included in the 2036 Do Minimum scenario has reduced from the 60,979 included in the July 2019 SRTM Report for Scenario 3 (DM Option 2 – which AECOM understood was the most likely scenario) to a total of 60,306 dwellings in the January 2020 SRTM Report. This decrease in the total number of dwellings modelled is counter intuitive when the LP Supplement (which the SRTM Report supports) includes additional housing allocations totalling up to 175 dwellings over and above those proposed in the Draft LP. **The reason for this apparent discrepancy should be explained and, if necessary, an alternative 2036 Do Minimum run of the SRTM commissioned.**

5.10. In addition, the SRTM makes no reference to the potential for additional growth to come forward through the two SGAs. AECOM therefore assume that allowance for the SGAs has not been included in this run of the SRTM. One of the main features of the LP Supplement is to introduce the concept of SGAs, therefore it is surprising that the SRTM Report does not include a scenario with one or both of them included. If the SGAs are to be pursued, the results of a run of the SRTM with these additional potential development areas included, should be presented for scrutiny. AECOM

accept that any such run may have to include less development in the neighbouring Local Planning Authorities, since the purpose of the SGAs is to accommodate unmet need from the rest of South Hampshire. Any such adjustments should be clearly set out in the accompanying report. AECOM also accept that the appropriate time to do this would be once PfSH have determined how much additional development Fareham needs to accommodate. However, **AECOM recommend that this exercise should be undertaken, and presented for scrutiny, as soon as the relevant housing numbers become available**.

5.11. The two SRTM assessment scenarios essentially represent a situation with and without proposed Local Plan growth to 2036. In each scenario, Welborne accounts for a large proportion of the total 2036 local plan development proposed. AECOM's TN01 recommended that, since Welborne had not received planning consent, it would be prudent to undertake an assessment **without** the Welborne Garden Village and its associated M27 Junction 10 improvements to provide an understanding of the impact of the 2036 LP sites on M27 Junction 10 and the wider SRN. Such an assessment has not been included in the updated SRTM. The planning committee has now resolved to grant planning permission for Welborne. **However, until the development commences, delivery of the M27 Junction 10 improvements cannot be guaranteed and therefore our recommendation from TN01 still stands (see Table 1 of this TN).**

Results

5.12. The results of the assessment are provided in a series of tables and figures in the SRTM Report showing the difference in flow (PCU), delay (s) and capacity (RFC) for the 2036 Baseline and 2036 Do Minimum scenarios.

5.13. Two criteria of significance of impact have been adopted in the SRTM Report:

- An RFC in excess of 85% and a net increase in RFC of more than 5% from the Baseline represents a '***significant impact***'; and
- An RFC in excess of 95% and an increase of more than 10% from the Baseline or a delay greater than 120s and an increase of more than 60s from the Baseline represents a '***severe impact***'.

5.14. As regards the key locations of interest to Highways England, the results of the assessment can be summarised in broad terms as follows.

2036 Baseline Results

5.15. The 2036 Baseline is forecast to increase peak hour traffic flows along the M27 by up to 2,000 PCU per direction per hour (relative to the 2015 Base) as presented in the flow difference plots Appendix B of the SRTM Report. The delay plots provided in Appendix C appear to indicate an increase in delay on the eastbound main line of the M27 between Junctions 8 and 9, in both the AM and PM peaks; otherwise an overall reduction in delay is indicated on the main line of the M27 within the study area. This is likely to be attributable to the inclusion of Smart Motorway and the improvements to M27 Junction 10 in the 2036 Baseline scenario and indicates that the implementation of this scheme would broadly accommodate the level of growth anticipated.

5.16. M27 Junction 11 is indicated to have both increases and decreases in delay on the approach arms to the junction. This accounts for a growth in traffic in the 2036 Baseline scenario compared to the 2015 Base but also the redistribution of traffic resulting from the provision of west facing slip roads at M27 Junction 10.

5.17. The volume / capacity (v/c) plots have not been appended to the updated SRTM Report. These would be useful in order to gain an understanding of the difference between the 2036 Baseline and 2036 Do Minimum scenarios on the M27 main line. **AECOM recommend that the v/c plots are provided.**

5.18. In terms of junctions, Figure 6-7 of the SRTM Report indicates a 'severe impact' (as defined in para 5.13 of this TN) at M27 Junctions 9 and 11 and the A27 Segensworth roundabout (Junction IDs 65, 3 and 2, respectively), from the growth in traffic between 2015 and 2036, whilst a significant impact is anticipated at the A27/ A32 Delme roundabout (Junction 26). Although a significant impact is reported on the A32 to the south of the M27 Junction 10, this does not appear to be associated with the operation of Junction 10 itself. Similarly, a significant impact is reported on Boarhunt Road at its junction with the M27 Junction 11 eastbound off-slip, however the slip road itself is indicated to operate within capacity.

5.19. The key results for junctions on or affecting the M27 Motorway are summarised in Appendix A of this TN. A number of specific instances of an excess of flow over capacity and an excessive queue are indicated, particularly at M27 Junction 11.

2036 Do Minimum Results

5.20. The 2036 Do Minimum is forecast to increase peak hour traffic flows along the M27 by between 30 and 60 PCU per direction per hour (relative to the 2036 Baseline) as presented in the flow difference plots contained in Appendix B of the SRTM Report. Intuitively, this appears to be low, considering that an additional 6,000 dwellings in Fareham have been included in the 2036 Do Minimum scenario compared to the 2036 Baseline. This could, however, result from the process by which the SRTM adjusts the growth in the other LPAs to control the overall development growth in the model to TEMPro employment and population trajectories at a sub-regional level (SRTM Report para 3.2.5).

5.21. One of the highest increases in flow is forecast at M27 Junction 10 with a maximum increase of 130 PCU on the eastbound off-slip in the AM peak.

5.22. The delay plots provided in Appendix C appear to indicate a minimal change in delay on the main line of the M27 within the study area. This indicates that the Smart Motorway scheme should broadly accommodate the level of additional development proposed.

5.23. In terms of junctions, Figure 6-13 of the SRTM Report indicates significant impacts at the A27 Segensworth roundabout and the A27/ A32 Delme roundabout (Junction ID's 2 and 26 respectively). Although M27 Junctions 9 and 11 are indicated to have a 'severe' impact in the 2036 Baseline, no further adverse impact is indicated in the 2036 Do Minimum scenario (i.e. the difference in RFC is less than 5%).

5.24. The key results for junctions on or affecting the M27 Motorway are summarised in Appendix A of this TN.

Results Summary

5.25. AECOM interpret the results of the 2036 Do Minimum assessment as follows.

5.26. At M27 Junction 9, a marginal reduction in the performance of the M27 eastbound and westbound off-slips is indicated relative to the 2036 Baseline. However, in the 2036 Baseline, the junction is indicated to be over-capacity and may require a more detailed junction capacity assessment in order to understand whether further highway mitigation, over and above that included in the SRTM is required. The SRTM is a strategic model and not designed to provide precise capacity results for individual junctions in the same way that a junction capacity model would**. As recommended in AECOM's TN01, the nature of the junction improvements assumed to have taken place at M27 Junction 9 in the scenarios modelled should be clarified and a more detailed junction capacity model of M27 Junction 9 should be provided to gain a better understanding of the impact of the proposed Local Plan allocations on the junction and the type of mitigation required.**

5.27. The approach to the Segensworth roundabout from M27 Junction 9 (A27 north) is indicated to experience a marginal reduction in performance in each peak compared to the 2036 Baseline. However, the predicted queue increases from 70 to 97 PCUs in the 2036 Do Minimum scenario in the AM peak. This deterioration does not have a bearing on the severity rating in terms of impact since the RFC (as calculated by the SRTM) increases by less than 5% and delay increases by less than 60s. However, the link connecting M27 Junction 9 with the Segensworth roundabout is only just over 400m long and a queue of 97 PCU queueing in two lanes would occupy approximately 70% of the length of this link. **AECOM therefore recommend that a more detailed junction capacity model of the Segensworth roundabout should be provided and, as recommended in TN01, mitigation measures should be considered here in order to minimise the risk of a queue tailing back to the M27 Junction 9.**

5.28. At M27 Junction 11, the eastbound off-slip is indicated to remain within capacity with a decrease in predicted queueing. A marginal reduction in the performance of the M27 westbound off-slip is indicated relative to the 2036 Baseline. However, in the 2036 Baseline, the M27 westbound off-slip is predicted to be significantly over-capacity with an RFC of 106-107% (increasing to 107-108% in the Do Minimum scenario) and the average queue is predicted queue to increase to 63 and 77 PCU in the Do Minimum scenario in the AM and PM peaks respectively. This slip road is approximately 300m long and, although it is marked as two lanes, the majority of traffic is expected to use the nearside lane to make the left turn into the A27 exit. A queue of either 63 or 77 PCUs in a single lane would occupy the whole of the slip road and tail back out on the main line of the M27. This would be regarded as a severe impact (albeit one that was already present in the 2036 Baseline) and **AECOM therefore repeat our recommendation from TN01 that, following more detailed junction capacity modelling of M27 Junction 11, mitigation measures should be considered here in order to minimise the risk of a queue tailing back on to the main line of the M27 from the M27 Junction 11 westbound off-slip.**

5.29. At the A27/ A32 Delme roundabout (Junction 26) and Boarhunt Road / M27 Junction 11 Off-slip (Junction 31), the approaches from M27 Junction 11 operate well within capacity in each scenario and would not be of concern.

5.30. A robust approach to the identification of infrastructure to support the forthcoming Local Plan would include an additional assessment scenario without the Welborne Garden Village and its associated infrastructure so as to examine the need, if any, to implement further improvements at M27 Junctions 9 and 11 (for example) in a scenario in which the current proposals at M27 Junction 10 have not (yet) gone ahead. Taking account of the reported 'severe impacts' at M27 Junctions 9 and 11 in the 2036 Baseline, if M27 Junction 10 is not improved as currently envisaged, there is a risk that this could become a 'show stopper' to the delivery of some of the other sites proposed for allocation in the Local Plan. **AECOM therefore recommend that a scenario designed to test this should be provided.**

6. AECOM Outstanding Recommendations from TN01.

6.1. AECOM's TN01 reported on a review of the July 2019 version of the SRTM Model Report which supported the 'Issues and Options' consultation of the 2036 Local Plan which took place in the Summer of 2019. AECOM made a number of recommendations regarding further assessment / information that should be provided to allow Highways England to gain a full understanding of the impact of proposed Local Plan growth on the SRN and the level of mitigation that would be required to support such growth.

6.2. As discussed at para 5.2 of this TN, our previous recommendations have not been addressed in the updated SRTM Report and are therefore repeated here. Table 1 below provides a summary of AECOM's recommendations which are outstanding and, where shown, are still relevant.

Table 1: AECOM TN01 Recommendations regarding the SRTM 2036 Local Plan Assessment

AECOM TN01 recommendations	Addressed in the SRTM Modelling Report (Jan 2020)?
Recommendations regarded as critical to the acceptability of the forthcoming Local Plan:	
1. A model test should be run for one or more scenarios in which the proposed Local Plan allocations go ahead either without Welborne and its mitigation scheme at M27 Junction 10; or in which Welborne proceeds to deliver 1,160 dwellings but delivery of the mitigation scheme at M27 Junction 10 is delayed (para 4.11).	Not provided.
2. Mitigation measures should be considered at the Segensworth roundabout to minimise the risk of a queue of traffic tailing back to M27 Junction 9 (para 5.14).	No mitigation specifically mentioned.
3. Mitigation measures should be considered at the M27 Junction 11 westbound off slip to minimise the risk of a queue of traffic tailing back to the main line carriageway of the M27 (para 5.15).	No mitigation specifically mentioned.
4. More detailed junction capacity models should be provided in respect of M27 Junctions 9 and 11 to gain a better understanding of the impact of the proposed Local Plan allocations on these junctions and the type of mitigation required (paras 3.3 and 5.19).	Not provided.
Recommendations regarded as important but not critical to the acceptability of the forthcoming Local Plan:	
5. Clarification should be provided on the way in which the proposed development 'North of Whiteley' has been incorporated in to the modelling and the nature of the junction improvements assumed to have taken place at M27 Junction 9 in the scenarios modelled (para 4.4).	Not provided
6. A model test should be run for a scenario in which Welborne (and its mitigation scheme) is assumed to go ahead and the remaining LP allocations do not, for the purpose of understanding the incremental impact of the proposed Local Plan allocations over and above the impact of Welborne (para 4.9).	The 2036 Baseline scenario as reported in the SRTM Report covers this scenario. This point is resolved.
7. The error in the 'DM2a Summary Table' tab of the spreadsheet should be corrected (para 5.20).	The table in question was not re-submitted with the SRTM Report, it is therefore unclear whether this error has been resolved.

7. Conclusion

7.1. In this TN, AECOM have reviewed and commented on the 2036 Local Plan Supplement, Interim Draft Infrastructure Delivery Plan and Solent Transport's Sub-Regional Transport Model (SRTM) Report in support of the Regulation 18 consultation of the Draft Fareham 2036 Local Plan and has identified some issues and concerns which should be addressed. Most of AECOM's recommendations regarding these concerns are carried forward from our previous review of the July 2019 SRTM Model Report which have not been addressed in the updated January 2020 SRTM Model Report. These recommendations are listed in the Executive Summary and highlighted by the use of bold underlined text in the main body of this document. Table 1 of this TN also summarises AECOM's outstanding recommendations from TN01. Recommendations regarded as critical to the acceptability of the forthcoming Local Plan are coloured **red.** Recommendations regarded as important but not critical to the acceptability of the forthcoming Local Plan are highlighted in **amber.**

7.2. **AECOM advise Highways England to formally raise the concerns highlighted in this note in the consultation response to the Draft 2036 Local Plan Supplement and Interim Draft Infrastructure Delivery Plan and to continue to work with Hampshire County Council and the other stakeholders to resolve the issues identified, before making a formal response to the emerging Local Plan.**

Extract from Appendix D of the SRTM Report showing the **2036 Baseline Vs 2015 Base** Model Results. Only SRN Junctions and those with potential to impact the SRN have been included below.

ID	Junction	Arm	2015 Base						2036 Baseline					
			AM			PM			AM			PM		
			RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)
2	Segensworth Roundabout	A27 Southampton Rd (S)	86	19	10	80	25	9	100	56	10	98	57	9
		Southampton Rd (S)	56	17	3	27	11	2	66	20	3	43	25	3
		A27 Southampton Rd (W)	99	84	11	79	29	6	100	95	8	81	30	6
		Little Park Farm Rd	28	11	5	60	16	6	77	35	3	87	36	5
		A27 (N)	**82**	**22**	**97**	**61**	**12**	**11**	**107**	**180**	**70**	**83**	**17**	**9**
		Segensworth Rd	30	22	3	33	21	3	29	23	4	31	20	4
3	M27 J11	A27 (S)	75	39	4	94	114	13	73	18	12	89	23	80
		M27 EB Off-slip	**107**	**205**	**15**	**96**	**58**	**15**	**77**	**46**	**53**	**74**	**57**	**24**
		To Boarhunt Rd	58	16	3	97	72	6	70	15	3	86	33	27
		M27 WB Off-slip	**95**	**32**	**63**	**111**	**268**	**77**	**106**	**171**	**50**	**107**	**185**	**82**
26	Delme Rbt	A32 Wallington Way	41	7	0	40	7	0	38	7	1	32	7	1
		Wallington Shore Rd	33	7	0	39	7	0	35	7	0	44	8	0
		A27 Eastern Way SB Off-slip	**56**	**20**	**3**	**32**	**22**	**2**	**49**	**17**	**3**	**45**	**25**	**2**
		A27 Cams Hill	76	5	8	60	4	0	86	6	2	70	4	0
		A32 Eastern Way NB Off-slip	46	28	3	61	23	3	60	32	2	57	22	4
		East Street	45	7	1	39	7	2	57	9	1	65	11	2
31	Boarhunt Rd / M27 J11 Off-slip	**M27 J11 Off-slip**	**83**	**3**	**25**	**83**	**3**	**13**	**33**	**0**	**0**	**36**	**0**	**0**
		Boarhunt Rd (NE)	0	4	0	0	5	0	88	11	0	93	21	66
		Boarhunt Rd (SW)	38	2	0	53	2	0	44	2	0	48	2	0
65	M27 J9	A27	46	45	3	53	87	14	48	73	3	66	167	12
		M27 EB Off-slip	**99**	**46**	**10**	**102**	**88**	**9**	**94**	**27**	**10**	**88**	**19**	**10**
		Whiteley Way	52	20	8	88	49	28	62	24	6	85	80	15
		M27 WB Off-slip	**86**	**54**	**8**	**61**	**87**	**14**	**81**	**20**	**7**	**85**	**26**	**6**

Rows highlighted with **bold** text indicate the arms of the junctions most likely to impact the SRN.

The SRTM report defines an RFC in excess of 85% and a net increase in RFC of more than 5% from the Baseline as representing a '***significant impact***'; and an RFC in excess of 95% and an increase of more than 10% from the Baseline or a delay greater than 120s and an increase of more than 60s from the Baseline as representing a '***severe impact***'.

Extract from Appendix E of the SRTM Report showing the **2036 Do Minimum Vs 2036 Baseline** Model Results. Only SRN Junctions and those with potential to impact the SRN have been included below.

ID	Junction	Arm	2036 Baseline						2036 Do Minimum					
			AM			PM			AM			PM		
			RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)	RFC (%)	Delay (s)	Av Q (PCU)
2	**Segensworth Roundabout**	A27 Southampton Rd (S)	100	56	10	98	57	9	100	58	10	98	57	9
		Southampton Rd (S)	66	20	3	43	25	3	69	20	3	45	24	2
		A27 Southampton Rd (W)	100	95	8	81	30	6	101	105	11	82	30	6
		Little Park Farm Rd	77	35	3	87	36	5	88	43	5	91	43	6
		A27 (N)	**107**	**180**	**70**	**83**	**17**	**9**	**107**	**192**	**97**	**85**	**17**	**11**
		Segensworth Rd	29	23	4	31	20	4	28	24	3	32	20	3
3	**M27 J11**	A27 (S)	73	18	12	89	23	80	74	22	4	91	22	13
		M27 EB Off-slip	**77**	**46**	**53**	**74**	**57**	**24**	**76**	**46**	**15**	**75**	**57**	**15**
		To Boarhunt Rd	70	15	3	86	33	27	77	16	3	88	35	6
		M27 WB Off-slip	**106**	**171**	**50**	**107**	**185**	**82**	**107**	**175**	**63**	**108**	**190**	**77**
26	**Delme Rbt**	A32 Wallington Way	38	7	1	32	7	1	39	7	0	36	8	0
		Wallington Shore Rd	35	7	0	44	8	0	39	8	0	50	9	0
		A27 Eastern Way SB Off-slip	**49**	**17**	**3**	**45**	**25**	**2**	**53**	**18**	**3**	**47**	**26**	**2**
		A27 Cams Hill	86	6	2	70	4	0	93	22	8	75	5	0
		A32 Eastern Way NB off-slip	60	32	2	57	22	4	65	34	3	63	24	3
		East Street	57	9	1	65	11	2	60	9	1	69	12	2
31	**Boarhunt Rd / M27 J11 Off-slip****	**M27 J11 Off-slip**	**33**	**0**	**0**	**36**	**0**	**0**	**37**	**0**	**0**	**37**	**0**	**0**
		Boarhunt Rd (NE)	88	11	0	93	21	0	89	11	0	93	27	0
		Boarhunt Rd (SW)	44	2	0	48	2	0	49	2	0	49	2	0
65	**M27 J9**	A27	48	73	3	66	167	12	49	76	3	67	179	14
		M27 EB Off-slip	**94**	**27**	**10**	**88**	**19**	**10**	**96**	**30**	**10**	**89**	**19**	**9**
		Whiteley Way	62	24	6	85	80	15	65	24	8	86	88	28
		M27 WB Off-slip	**81**	**20**	**7**	**85**	**26**	**6**	**82**	**20**	**8**	**88**	**38**	**14**

**2036 Baseline figures are different in Appendices D and E of the SRTM, these should be the same. The results shown in this table have been corrected by AECOM.

Rows highlighted with **bold** text indicate the arms of the junctions most likely to impact the SRN.

The SRTM report defines an RFC in excess of 85% and a net increase in RFC of more than 5% from the Baseline represents a '***significant impact***'; and an RFC in excess of 95% and an increase of more than 10% from the Baseline or a delay greater than 120s and an increase of more than 60s from the Baseline as representing a '***severe impact***'