

## 1. Are there any potential highways / pedestrian safety issues not satisfactorily overcome?

**In what way is the Council's strategic transport study flawed?**

**Could the existing traffic conditions cause the highways impact to be severe?**

**What were the conclusions of the WSP study re. traffic conditions in East Grinstead?**

### 1.1 Safety issues

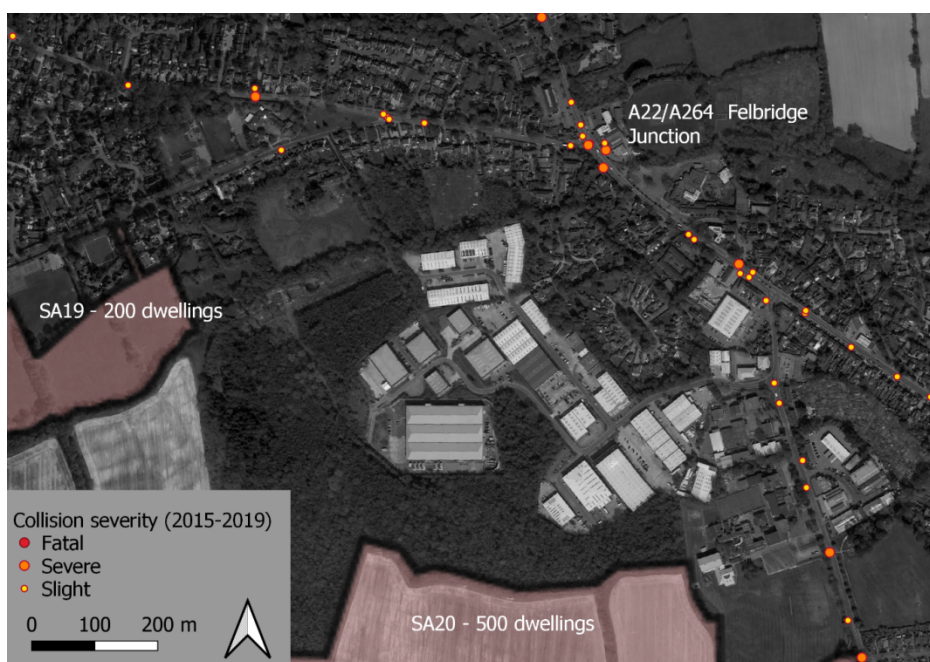
1.1.1 The Road Safety Review report was not published until after the regulation 19 consultation. There has been no opportunity to engage with stakeholders, residents, and professional bodies on the terms of this study. As a result, there are concerns over the definition of safety impacts considered and the scope of the junctions included. No rationale is given for rejecting other appropriate methods such as a risk-based road safety assessment.

1.1.2 The approach adopted by the Council's Road Safety Review is that junctions are prioritised on the basis of two criteria:

- i. "Five or more accidents at the junction in the five year period, or at least one fatal accident, or at least two serious accidents"
- ii. "A traffic flow increase through the junction of 10% or more, in either AM or PM, in the Sites DPD Scenario or Sites DPD Scenario with mitigation compared to the Reference Case".

1.1.3 These criteria are methodologically flawed on several grounds and as a result, several key collision hotspots in East Grinstead are excluded from the Road Safety Review.

1.1.4 Firstly, the analysis uses collision data for Mid Sussex District only. In the case of junctions on the local authority boundary such as the A22/A264 Felbridge Junction, collisions georeferenced in the neighbouring authority are excluded. The following collision plot highlights the cluster of collisions around the junction. By contrast, it is standard practice when identifying collision hotspots to collate collisions around specific junctions regardless of local authority boundaries.



- 1.1.5 Secondly, only those junctions that feature in the capacity assessment are evaluated in the safety assessment. Roads with a more dispersed cluster of collisions, or junctions that have high road safety risk but do not feature in the capacity assessment in the MSTs study area are excluded.
- 1.1.6 In context, two serious collisions occurred in the years 2015-19 on the stretch of Imberhorne Lane between Imberhorne School and the junction with Heathcote Drive. This linear cluster of collisions cannot be attributed to a single junction, and while Heathcote Drive itself experience two serious collisions in this time period, it is a residential street that is not featured in the strategic traffic model.
- 1.1.7 Finally, junctions with severe capacity impacts in the Reference Case are (again) excluded from the impact assessment. It is perversely assumed, if there are existing safety issues at a congested junction, and in the Reference Case, that the addition of development-related traffic will not materially worsen the safety risk. This is illogical. It is also without assessment or evidence.
- 1.1.8 The A22/A264 Felbridge Junction is one junction that would qualify for further examination under the criterion of the number and severity of collisions (if collisions at the local authority boundary are included). Yet it does not meet the test of the second criterion because the congestion already occurs in the Reference Case.
- 1.1.9 For the reasons outlined above, the methodology fails to identify collision hotspots at the Felbridge Junction and on Imberhorne Lane although these two locations are existing collision hotspots and are the locations in the town that are most directly affected by site allocations SA19 and SA20.
- 1.1.10 Conversely, the only location in East Grinstead that is flagged in using the criteria in the Road Safety Review is the B2110/Railway Approach junction, which is also an existing collision hotspot, but which is much less directly affected by sites SA19 and SA20.
- 1.1.11 Other forms of impact assessment use absolute thresholds to assess impacts in the Reference and Development Cases. For example, where there are severe air quality impacts in Air Quality Management Areas under existing conditions or in the future year Reference Case, no marginal increase at all is legally permissible. This results from the specific legal circumstances surrounding air quality but is a clear example of the principle where no level of increased risk is deemed acceptable.
- 1.1.12 One opportunity to overcome the flaws of the 10% increase threshold would be to use a risk-based methodology to road safety assessments. The use of a risk-based assessment calculates the change in risk exposure based on the change in distance travelled by mode and distance travelled in different conditions (rural/urban, congested/uncongested). This approach considers the impact on the risk exposure of more vulnerable road users and is therefore more suited to assessing the impacts of greater traffic volumes through junctions with an acknowledged pedestrian safety issue.

## **1.2 Impacts of re-routing**

- 1.2.1 The narrow definition of safety is one example of the issue arising from the exclusion of re-routing impacts. This is of particular relevance to East Grinstead where significant re-routing of car trips occurs as a result of congestion on the A22/A264 corridor, affecting areas that are not the focus of the strategic model.
- 1.2.2 The Strategic Transport Assessment supporting the Plan (Systra, 2020) acknowledges that congested local junctions will result in significant re-routing along residential streets and country lanes unsuited to heavy traffic. In particular, the congestion at the A264/A22 Felbridge Junction in the 2031 Reference Case is expected to result in increased re-routing by drivers seeking to avoid these queues.
- 1.2.3 Indeed, the Strategic Transport Assessment suggests that re-routing to avoid the Felbridge Junction when arriving in East Grinstead in the evening peak is already commonplace under current traffic conditions.
- 1.2.4 The modelled flows indicate that the combination of traffic to the Imberhorne Lane site and traffic avoiding the Felbridge Junction would lead to an increase of 100-150 vehicles on the B2028 and B2110. Like Felbridge, the Turners Hill junction is congested and is also expected to operate over capacity in the 2031 Reference Case, and, on this basis, the development-related impacts are not classed as severe.
- 1.2.5 The B2028 / Wallage Lane junction is therefore the only one classed as experiencing a severe impact after the mitigation measures. On the basis that this is a minor road, it is concluded that no mitigation should be proposed to avoid encouraging more traffic down this unsuitable route.
- 1.2.6 The flawed appreciation and interpretation of severe impacts as part of the assessment methodology fails entirely to take into account impacts on affected communities: in Wallage Lane, Turner's Hill and Crawley Down. The affected roads include narrow sections of country lane with passing points and country roads with residential frontages.
- 1.2.7 The predicted increase in re-routing local traffic will have a significant impact on road safety, and local air and noise pollution for the affected communities. While these impacts are not located immediately adjacent to sites SA19 and SA20 in spatial terms, they meet the NPPF paragraph 108 definition of "*any significant impacts from the development on the transport network*". As a result, the resulting capacity, safety and environmental impacts on the affected communities should be considered within the Strategic Transport Assessment.

## **1.3 Transport model**

- 1.3.1 The purpose of a strategic model is to predict flows over a wider geographic area. The standard criteria for trip matrix validation, link flow validation and journey time validation aim to produce a robust model overall model. A degree of caution is thus needed when interpreting the results of an individual junction from a strategic highway model. However, clear discrepancies in the volume of trips in a junction can be a sign of underlying issues with the matrix estimation or assignment procedures.
- 1.3.2 The MSTS model used to support the site allocations grossly understates the serious traffic conditions at the Felbridge Junction in the 2017 base year. All other studies commissioned over the past decade are consistent in their assessment of this junction. The 2017 base

model used to support the site allocations is a gross outlier, and this discrepancy is the result of key modelled traffic flows through the junction being 15-20% lower than observed conditions.

1.3.3 The flaws in the MSTs model call into question its ability to predict the impact of major growth in East Grinstead.

1.3.4 The following table summarises the assessment of AM peak congestion on the A264 Copthorne arm of the junction. The results are expressed in either Degree of Saturation (DoS) or Ratio of Flow to Capacity (RFC) depending on the type of model used.

Traffic Study	Model Type	Base Year Model Assessment	Future Year Assessment(s)
East Grinstead Traffic Management Study (Atkins 2012)	LINSIG	2011 DoS - 96%	2021 Future Base DoS - 97%
Mid Sussex Transport Study Stage 1 (Amey 2012)	SATURN	2010 RFC - 104%	2021 and 2031 Reference Cases RFC - 104%
Mid Sussex Strategic Highway Model (Systra 2018)	SATURN	2017 RFC - 61%	2031 Reference Case RFC - 105%
Felbridge Junction Options Study (WSP 2019)	LINSIG	2018 RFC - 106%	2033 model results not published

1.3.5 Analysis of traffic counts at the Felbridge Junction in 2016<sup>1</sup> confirms that the observed flows on the A264 (W) and A22 (N) arms of the junction in both the morning and evening peak periods are 15-20% higher than the 2017 base model flows.

1.3.6 The methodology for measuring vehicle queue lengths within the congested town centre network has been considered in recent appeals. As noted by the Inspector in relation to Land at Hill Place Farm, Turners Hill Road, East Grinstead<sup>2</sup>, the data on the manual turning counts has been reasonably consistent, and as such the manual turning count data from the 2016 Jubb report provides a reasonable benchmark for the 2017 base model.

#### 1.4 Definition of severe impacts

1.4.1 The model underpinning the Strategic Transport Assessment shows the Felbridge junction over capacity in the 2031 Reference Case. The 2016 Mid Sussex Transport Study (Amey) underpinning the District Plan adopted in 2018 also showed the Felbridge junction over

<sup>1</sup> East Grinstead and surrounds 2016 survey and review of traffic conditions: Section 2 detailed and consolidated information and findings, Jubb September 2016

<sup>2</sup> See paragraph 253 of the ruling on the section 78 appeal made by Linden Limited in relation to Land at Hill Place Farm, Turners Hill Road, East Grinstead (PINS reference APP/D3830/W/16/3142487)

capacity in its 2031 Reference Case. The flawed approach underlying the Council's assessment is that, given existing (residual, cumulative) severe impacts, a worsening (even if less than significant) in the Development Case cannot of itself give rise to a severe impact. The assessment ignores the unacceptable worsening of what are already, existing and unacceptable severe impacts.

- 1.4.2 Since the A22/A264 corridor, and in particular the Felbridge Junction, is already operating over capacity, the assessment assumes that the traffic from new development will cause drivers to re-route (i.e. rat-run) away from the junction. In the context of MSDC's approach to severity, this reassignment will be unable to trigger a severe impact at the Felbridge Junction. Some of the re-routed traffic will add to congestion at the Turners Hill junction, which is also predicted to be operating over capacity in the 2031 Reference Case and thus not triggering a severe impact. Irrespective of the quantum of new development coming forward in the future, neither of these junctions will trigger a severe impact.
- 1.4.3 The Strategic Transport Assessment acknowledges the capacity issues and highlights how development-related traffic will have significant impacts. It is not disputed that the Felbridge Junction currently suffers from congestion issues as highlighted in the recent WSP study<sup>3</sup>, and that the pressure on this junction will increase in the future. The MSTs reports show that this junction will be operating above capacity under all scenarios in 2031.
- 1.4.4 Despite this, MSDC have repeatedly argued that these congestion impacts will occur in the 2031 Reference Case and are therefore not attributable to development impacts under the definition of 'severe' impacts used in the MSTs. The Amey Stage 3 Report that was presented as evidence for the District Plan concluded that the junction was operating over capacity in the 2031 Reference Case, and as such did not trigger a severe impact under the definition used by MSDC. The Felbridge Junction congestion issues were not raised as a concern by MSDC at the 2017/18 Local Plan examination.
- 1.4.5 This interpretation of the severity of impacts is not consistent with the overall aim of the NPPF to assess the residual cumulative impacts of development. Adding significant increases in traffic to an already congested junction will have unacceptable, detrimental impacts to existing users of the junction, to people living near the junction and to people affected by traffic re-routing elsewhere.

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<sup>3</sup> WSP (Oct 2019) Felbridge Junction Options Appraisal Executive Summary

## 1.5 Definition of the Reference Case

- 1.5.1 MSDC's assessment does not demonstrate that all housing allocations are assessed against a common benchmark, or Reference Case, in order to take account of the total scale of impact and the marginal impact of additional allocations. This failure means that any level of development may wrongly be shown as acceptable, on the basis of being assessed in smaller increments and against a moving Reference Case. The impacts have wrongly been assessed against two different Reference Cases.
- 1.5.2 Policy SA10 of the DPD sets out how MSDC will *"address the residual housing need necessary to fully meet the identified housing target for the District within the plan period"*. It goes on to specify that table 2.4 containing the proposed spatial distribution of housing *"updates and supersedes the table set out in District Plan Policy DP4"*, which represents the cumulative distribution of housing to be assessed. The test of soundness by which the impacts of developments are assessed must then logically focus on the cumulative impact of the original allocation contained within the District Plan for the period to 2031, plus the additional DPD allocations over that same period, measured against a common Reference Case.
- 1.5.3 It is paramount to distinguish between what is good practice in terms of a keeping a transport model up-to-date, and the decisions made about how to assess different future year scenarios for the purpose of the Site Allocations DPD. The update of the transport model itself is not disputed. It is consistent with the DfT's TAG guidance for the Technical Project Manager that the transport model was updated to a new base year. Likewise, the consultant would be expected to define a new Reference Case to reflect an updated understanding of likely future scenarios so that this can be used to test the impacts of individual schemes.
- 1.5.4 However, when using the transport model for the purpose of the DPD site allocations evidence base, the onus is on MSDC to demonstrate the acceptability of (residual) cumulative development impacts of the District Plan and DPD allocations against the same Reference Case as the original District Plan.
- 1.5.5 The evidence base presented to justify the District Plan allocations was based on a Reference case housing allocation of 10,365. Several development scenarios were tested, and the conclusions referenced the Alternative Development Case with a total allocation of 16,578 dwellings. The subsequent work by Systra using the updated model includes scenario 1 (close to District Plan allocations) and scenarios 7 and 8 (close the actual DPD allocations). These were assessed against a Reference Case of 11,441 dwelling, which is higher than the original District Plan.
- 1.5.6 The evidence base for the DPD sites allocations therefore needs to be based on the District Plan impacts plus the incremental impacts of the additional DPD sites, and assessed against the original Reference Case allocation of 10,365 dwellings. Without this approach it is not possible to quantify the cumulative impacts. In practical terms, this would require the traffic impacts in scenarios 7 and 8 in the Systra modelling work to be compared to the original District Plan evidence base contained in the Amey Stage 3 report (or a scenario in the new version of the model designed to reflect the previous Reference Case).

**1.6 Felbridge Junction, East Grinstead**

- 1.6.1 The A264/A22 Felbridge Junction lies at the boundary of Mid Sussex and Tandridge. A WSP study has been commissioned by the two district councils and their respective highway authorities to explore options to increase capacity at the junction and improve pedestrian safety.
- 1.6.2 MSDC argues that the junction improvement is required to address existing issues and is therefore not development related. The junction has certainly been the focus of concern by MSDC and Tandridge for a number of years. For example, pedestrian crossing facilities at this junction already feature as a high priority measure in the Tandridge Local Transport Strategy Forward Programme produced with Surrey County Council in 2014.
- 1.6.3 Without justification, the findings of the full WSP study have not been publicised. Only the executive study of the original draft report (October 2019) has been published. It concluded that there were no agreeable options that could be delivered within the existing highway boundary. The recommended option 3 requires 3<sup>rd</sup> party land to deliver some increase in capacity (similar to the 'Do Minimum' scenario in the Atkins 2012 study), although it is predicted to operate over capacity again by 2031. This option does not deliver pedestrian crossings at the junction. An alternative option 4 (similar to the 'Do Something' scenario in the Atkins 2012 study) that would deliver greater capacity and pedestrian crossings is not recommended on the grounds that the land take would be more costly and risk-susceptible given that the land requirement may include buildings.
- 1.6.4 A cost-effective and deliverable mitigation scheme is not available at the Felbridge Junction. A previous Housing Infrastructure Fund bid was not successful and the scheme is currently unfunded. Moreover, the provision of junction improvements that do not improve pedestrian safety, contrary to the original objectives, would be open to challenge.