Land south of London Road, Newington, Kent:

Objection on Transport and Highways Grounds on behalf of Newington Parish Council

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Railton TPC Ltd ref:	Newington 2022 B
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1 INTRODUCTION

1.1 Railton TPC Ltd has been instructed by Newington Parish Council to assess transport work submitted in support of a planning application for up to 135 dwellings on land south of London Road, Newington (Swale Borough Council (SBC) ref. 22/500275/OUT). This report summarises the findings of the review and identifies a number of concerns. These are summarised in the concluding section.

1.2 Transport supporting information is presented in the Transport Assessment (TA) and the Travel Plan (TP), both prepared by Ashley Helme Associates (AHA) and dated January 2022.

1.3 The author is familiar with the site and the local transport networks having undertaken a significant amount of work locally, including a Public Inquiry in relation to a major housing development west of Sittingbourne.

1.4 The site has been subject to two previous planning applications; one for 330 dwellings and a 60 unit extra care facility (ref. 15/50067/OUT) and the second for 126 dwellings and a 60 unit extra care facility (ref. 15/510595/OUT). The applications went to a joint public inquiry in 2016. The appeals were dismissed for reasons that included adverse impacts in relation to the Air Quality Management Areas (AQMAs) in Newington and Rainham.

2 UNRELIABLE BASE TRAFFIC FLOWS

2.1 The applicant undertook traffic surveys at the end of June 2021. Summary data are presented in Figure B1 of Appendix B of the TA. It is likely that traffic flows in June 2021 were affected by the ongoing COVID pandemic restrictions. The Government announced on 21 June 2021 that the final (fourth) stage of easing lockdown would not start until 19 July 2021. A range of restrictions were therefore still in force in June when the traffic surveys were undertaken. These included the recommendation that people work from home if they were able.

2.2 The applicant presents no analysis as evidence that the surveyed traffic flows represent reliable estimates that would be valid as a basis for undertaking transport impact assessments. The following table compares the traffic flows undertaken in 2015 in association with the previous applications on the site with the surveys undertaken in June 2021:

Table 2.1: Comparison of Traffic Surveys

		Weds 18 Nov 2015	**Weds 23 June 2021**	**Difference (2021-2015)**	**% Difference**
AM Peak	eastbound	523	436	-87	-16.6%
	westbound	879	867	-12	-1.4%
	total	**1,402**	**1,303**	**-99**	**-7.1%**
PM Peak	eastbound	720	627	-93	-12.9%
	westbound	666	634	-32	-4.8%
	total	**1,386**	**1,261**	**-125**	**-9.0%**

2.3 It can be seen that in all cases the 2021 surveyed flows were lower than those surveyed in 2015. If the standard source for estimating traffic growth is interrogated, as has been done to convert 2021 traffic flows to future year traffic flows (see Appendix C of TA[1]), the growth rate from 2015 to 2021 is +9.2% in the AM peak and +9.0% in the PM peak. It therefore appears that if traffic returns to pre-pandemic levels, peak hour traffic flows would be 9% higher than 2015 levels and thus may be under-estimated by the applicant by between 16% and 18% in the peak hours.

1 Derived from National Traffic Model (NTM) using average of Swale 008, Swale 009 and Maidstone 011 geographical areas, all purpose car driver trips, all area types, all road types

2.4 The applicant fails to provide the traffic survey data from which traffic flows have been derived. It is therefore impossible to check whether the summary plans included in the TA are accurate and it is impossible to assess whether the shortfalls in flows identified in the peak hours are also applicable on a daily basis. If this were the case, it would have implications in terms of air quality assessment. The applicant needs to provide the base data.

3 UNDER-ESTIMATE OF TRAFFIC GROWTH

3.1 It appears that the traffic growth figures adopted by the applicant under-estimate future traffic flows. Paragraph 7.4.1.2 states that traffic growth has been derived using the National Transport Model (NTM). Some additional background on the approach adopted towards the derivation of traffic growth is provided in the File Note attached as Appendix C of the TA. The following table summarises the growth rates that are set out in the TA and growth rates derived using the standard TEMPro/NTM methodology (version 7.2) based on the same criteria as used in the TA:

Table 3.1: Comparison of Growth Rates

2021-2026	**Transport Assessment**		**TEMPro/NTM***	
Area	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
Maidstone 011	1.0372	1.0396	1.0608	1.0633
Swale 008	1.0289	1.0306	1.0523	1.0540
Swale 009	1.0336	1.0343	1.0572	1.0579
Average	1.0340 (+3.40%)		1.0576 (+5.76%)	
2021-2031	**Transport Assessment**		**TEMPro/NTM***	
Area	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
Maidstone 011	1.0732	1.0790	1.0946	1.1005
Swale 008	1.0543	1.0587	1.0753	1.0798
Swale 009	1.0619	1.0639	1.0831	1.0851
Average	1.0652 (+6.52%)		1.0864 (+8.64%)	

* all purpose car driver trips/ all area types/ all road types as stated as the basis for calculation in the TA

3.2 It appears that the growth rates that have been applied to assess the impact of the proposed development are significantly lower than those derived using the standard methodology. Between 2021 and 2026 the growth rate that has been applied is 2.36% lower than it should be (5.76% minus 3.40%). Between 2021 and 2031 the growth rate is 2.32% lower than predicted using the standard methodology. The figures equate to growth rates that are 41% lower than expected to 2026 and 25% lower to 2031.

3.3 This discrepancy needs to be explained and corrected if necessary.

4 ERRORS AND OMISSIONS ALLOWING FOR COMMITTED DEVELOPMENT

4.1 Numerous committed developments are cited in the TA. These are detailed in File Note 2 that is attached as Appendix D of the TA.

4.2 Although four developments[2] are identified as generating traffic that will add to traffic flows on the A2 west of the A249, in every case it is assumed that none of the traffic travels through Newington. The implication is that all of this traffic either starts or ends its journey somewhere between Newington and the A249. This is clearly unreasonable. All the committed traffic flows that are identified on the A2 west of the A249 should have been assumed to travel through Newington for the purposes of assessing both traffic and air quality impact.

4.3 Paragraph 1.27.1 of the TA refers to planing application ref. 20/501475/FULL, Land to the Rear of Eden Meadow, Newington. It has been assumed that because the development, in isolation, would not lead to a material impact, it has been ignored in relation to the current application. The Eden Meadow application, however, comprises 35 dwellings and will generate between 18 and 19 vehicle trips on the local highway network in the peak hours and 183 trips on a daily basis. This level of trip generation is higher than some of the increases in traffic flows associated with those committed developments that have been included in the assessments. An allowance for these trips should have been included in the assessments.

4.4 The list of committed developments set out in the TA fails to include the following planning applications validated before the Land south of London Road application:

- 20/505059/FULL: Willow Trees, 11 High Street, Newington (20 dwellings), validated 8 January 2021.
- 21/504028/FULL: Land at School Lane, Newington (25 dwellings), validated 13 August 2021.
- 21/505722/OUT: 128 High Street, Newington (46 dwellings), validated 4 November 2021.
- 21/501839/OUT: Land off Otterham Quay Lane, Upchurch (74 dwellings), validated 16 April 2021.

2 Refs. 17/505711 Land at Wises Lane/ 18/502190 Land north of Quinton Road/ 17/500727/OUT Manor Farm, Key Street/ 18/500258/FULL Land at Hill Farm, Bobbing

- KCC/SW/0277/2016: Paradise Farm Brickearth Extraction.

4.5 There are therefore 165 committed dwellings that will impact either directly or indirectly on the highway network in Newington that have not been accounted for by the applicant in assessing the impact of the proposed development in the future.

4.6 The committed brickearth extraction at Paradise Farm is predicted to generate 101 daily vehicle movements, of which 85 will be HGV movements, all of which will travel though the centre of Newington. Although the impact in terms of the peak hours is likely to be limited, the development is predicted to lead to a 10% increase in HGV movements on the A2 through Newington on a daily basis. The development therefore has a much greater impact in terms of daily flows and, potentially in relation to air quality.

4.7 In summary, the applicant has failed to properly incorporate predicted traffic flows associated with a number of committed developments into future traffic flows on the A2 in the vicinity of the site and has omitted to make allowance for traffic generate by a number of relevant local committed developments.

5 UNRELIABLE MODELLING OF KEYCOL JUNCTION

5.1 The A2/A249 Keycol junction has been modelled using the LINSIG computer programme. Table 8.4 of the TA provides a summary of the results of the 2021 base situation and compares queues with queues observed at the time of the traffic surveys. Paragraph 8.6.2.1 of the TA states that, '*the LINSIG model queues provide a reasonable match to the recorded queues. It is concluded that the LINSIG model is suitable to test the traffic impact of the proposed development in year 2026*'. However, it is clear from Table 8.4 of the TA that there is a poor correlation between observed and modelled average maximum queues:

Table 5.1: Comparison of Observed and Modelled Average Maximum Queues at Keycol Junction (2021)

Movement	AM Peak			PM Peak		
	observed*	modelled**	difference	observed*	modelled**	difference
Key Street	15	1	-14	17	2	-15
Chestnut Street	2	0	-2	5	0	-5
A249	13	10	-3	15	13	-2
Keycol Hill	17	2	-15	20	3	-17
Bobbing Hill	1	0	-1	1	0	-1
Sheppey Way	26	7	-19	15	6	-9

*average maximum queue **mean maximum queue (rounded to whole number)

5.2 It is clear that the model is not reliably simulating the operation of the junction. On every arm and in both peak hours the model is underestimating queues. In many cases the under-estimate is very significant. For example, on Keycol Hill, observed average maximum queues are 17 vehicles in the AM peak and 20 vehicles in the PM peak. In reality the queues may well have been longer than this since the alignment of the road makes it very difficult for an observer at the roundabout to see more than around 20 vehicles queuing. The model is, however, predicting queues of just 2 vehicles in the AM peak and 3 vehicles in the PM peak.

5.3 Given the very significant differences between observed and modelled queues, it is not possible to draw conclusions about the operation of the junction in future years based on the modelling.

5.4 The applicant fails to provide the modelling files so it is impossible to review the methodology and identify possible reasons for the poor validation results.

6 COMMENT ON WIDER NETWORK IMPROVEMENTS

Keycol Junction

6.1 At section 8.6.4 of the TA the applicant suggests that there exists a scheme that can be implemented to improve the performance of the Keycol junction. Reference is made to a scheme involving the signalisation of four of the six junction entry arms that was being proposed at the time of the previous applications on the site in 2015. Since this time, further modelling work has been undertaken in relation to individual planning applications and wider Local Plan development that demonstrates that no significant benefit is achieved in capacity terms by implementing this signalisation scheme. Whereas the applicant suggests that there may be scope to make a contribution towards an improvement scheme to mitigate the impact of the proposed development, in reality no such scheme exists.

6.2 The comprehensive work undertaken since 2015 has shown that the only meaningful improvement to the junction involves the signalisation of the A249 eastbound off-slip. This improvement has recently been implemented. The main benefit of this alteration is to better manage the long queues that constituted a severe safety risk when they extended back onto the running lanes of the A249. The signals have the effect of giving greater priority to vehicles entering from the A249 at the expense of some capacity for other movements around the junction. The benefit in relation to the proposed development's impact on the Keycol arm of the junction is therefore minimal, and potentially negative.

6.3 Contrary to the applicant's suggestion, it cannot be assumed that any contribution can be used effectively to provide additional vehicle capacity at the congested Keycol junction.

Junction 5 of M2

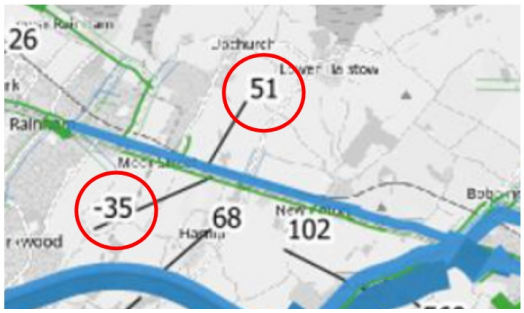
6.4 The M2/A249 junction is currently being improved. The modelling work that was undertaken to assess the impact of the scheme shows that it is likely to lead to some reassignment of traffic on surrounding highway links, including the A2 through Newington. The long delays experienced by drivers seeking to access the M2 from the east via the A249 has led to many drivers choosing to avoid the A249 route and instead travel to the west via the A2. Some drivers who previously used the A2 will transfer to the A249 when delays at the motorway junction are removed but others who were

previously deterred from using the A2 will transfer onto the A2 to access the A249 to reach the motorway (or A249 west of the motorway.

6.5 The modelling work undertaken by Highway England (now National Highways) suggests that the scheme will lead to a small increase in AM peak hour traffic through Newington and a small decrease in the PM peak hour:

Figure 6.1: Extract from M2 Junction 5 Improvements: Highways England Statement of Case, October 2019: Flow Difference between Do Something and Do Nothing

2022 AM Peak



2022 PM Peak

6.6 In the AM peak it is predicted that the scheme will lead to a net increase of 16 vehicles through Newington. In the PM peak the scheme will lead to a net decrease of 13 vehicles.

6.7 It is concluded that the M2 Junction 5 scheme will not lead to any significant reduction in traffic flows through Newington in the peak hours, and may marginally worsen the situation in the AM peak.

7 WEAK TRAVEL PLAN

7.1 The key Travel Plan target is to reduce AM peak hour car trip generation by 10%[3]. The baseline AM peak trip generation rate against which the target is applied (referred to as the '*business as usua*l' trip rate in the TP) is 0.600 car trips per dwelling. The proposed target is therefore 0.540 car trips per dwelling in the AM peak hour.

7.2 It is stated (para. 5.9.6 of TP) that the '*business as usual*' trip rate is consistent with that applied in the TA. However, when this figure is scrutinised in the TA it is evident that the car trip rate derived from the latest TRICS data is 0.525 car trips per dwelling. The figure of 0.600 trips is only applied as a 'worst case' as it was the figure that was used in relation to the previous applications on the site. It is therefore clear that the 'target' TP figure of 0.540 car trips per dwelling in ***higher*** than the most recent TRICS figure of 0.525 car trips per dwelling. This approach makes a mockery of the idea of having a 'target'. Indeed, it appears that the TP could seek to ***increase*** car use and still achieve the stated target.

7.3 The TP target entirely undermines any potential effectiveness of the TP.

7.4 Notwithstanding the above, the applicant provides no evidence to support the proposed 10% reduction in AM peak hour vehicle trip generation. A 10% reduction in car driver mode share is a very ambitious target and well in excess of what is generally achieved even with the most well organised and generously funded residential travel plan. The use of the 10% figure appears to have been 'plucked out of the air' with little attention paid to its appropriateness. Of course, the way in which the target has been set obviates the need to ever interrogate the figure in any detail.

7.5 Although the local area benefits from a railway station, the overall transport sustainability credentials of the area are not good[4]. The area has one of the lowest levels of walking in the District (3.8% of journeys compared with 11.3% for Swale as a whole), a very low level of cycle use (0.8% compared with an average of 2.2% for Swale) and a lower than average level of bus use (1.4% compared with 2.0% for Swale). This results is a higher than average car driver mode share (69.9% compared with 65.0% for Swale as a whole). In order to compensate for the low levels of walking, cycling and bus use, there would need to be very convincing measures to actively encourage travel by these

3 See Section 5.9 of TP

4 See data presented in Section 5.5 of TP

modes and even then, there will be limited potential for improvement since, for example, there are only a limited number of destinations available within walking distance.

7.6 Scrutiny of the TP reveals it to be extremely flimsy relying entirely on ‘soft’ measures with no mechanism by which remedial action can be required if the TP is found to be failing. No financial subsidies are proposed to encourage residents to use public transport or to cycle more and no increases in bus frequency or extentions of operating hours into the weekday evening periods are proposed. This type of TP, whose substance essentially comprises statements or good intent and commitments extending little further than the appointment of a Travel Plan Coordinator and the circulation of ‘travel packs’, is almost guaranteed to lead to negligible changes in travel behaviour. The applicant is seeking to ‘tick the box’ of providing a TP while committing an absolute minimum in terms of genuine measures.

7.7 It is concluded that no reliance should be placed on the TP to mitigate the transport impacts of the proposed development.

8 CONCLUSION

8.1 Railton TPC Ltd has been instructed by Newington Parish Council to assess transport work submitted in support of a planning application for up to 135 dwellings on land south of London Road, Newington (Swale Borough Council (SBC) ref. 22/500275/OUT). This report summarises the findings of the review and identifies a number of concerns, particularly relating to the underestimation of future year traffic flows.

8.2 The applicant relies upon traffic surveys undertaken in June 2021. The surveyed flows are significantly lower than flows recorded in 2015. It appears highly likely that the 2021 surveys were significantly affected by the COVID restrictions that were in place at the time. If past trends in traffic growth return to pre-COVID levels it is possible that flows will be 16%-18% higher than predicted in the peak hours.

8.3 The applicant fails to provide traffic survey data so it is impossible to check whether summary flows are correct and impossible to assess whether shortfalls in the peak hours are replicated on a daily basis. If the latter were the case, it would have implications in terms of air quality assessment.

8.4 The traffic growth rates applied by the applicant are 41% lower than expected to 2026 and 25% lower than expected to 2031. The applicant needs to explain this discrepancy.

8.5 The applicant has considered the impact of a number of committed developments but none of the traffic generated by those that impact on the A2 west of the A249 is assumed to pass through Newington. This assumption is clearly unreasonable.

8.6 The applicant has failed to allow for traffic generated by five developments, validated before the South of London Road application, of between 20 and 74 dwellings that impact either directly or indirectly on the local highway network.

8.7 The applicant has made no allowance for the Paradise Farm brickearth extraction that will lead to a significant increase in HGV movements past the site and through Newington on a daily basis.

8.8 The applicant has incorrectly assumed that the modelling of the Keycol junction is reliable despite clear evidence that the model is significantly under-estimating queues.

8.9 The applicant seeks to convey the impression that a contribution towards capacity improvements at the Keycol junction can adequately mitigate the impact of the proposed development. Significant work undertaken since 2015 has shown that the only viable

way to improve capacity at the junction is to signalise the A249 off-slip and this scheme has already been implemented. The scheme does little or nothing to improve capacity on the eastbound A2 approach or on the majority of other entries.

8.10 The M2 Junction 5 improvements will not improve traffic conditions on the A2 through Newington. Modelling of the scheme shows it to lead to a small increase (+16 vehicle trips) through Newington in the AM peak hour and a small decrease (-13 vehicle trips) in the PM peak hour.

8.11 The proposed Travel Plan (TP) adopts a target AM peak hour mode share that is meaningless since car use could ***increase*** above typical levels and the target would still be achieved. The TP is extremely weak and should be given no weight in judging the ability to mitigate the transport impact of the proposed development.

8.12 Overall it is concluded that the proposed development is likely to lead to a significantly greater traffic impact than suggested by the applicant.