



Strategic Road Network Impacts – Technical Note Thanet Local Plan Evidence Base

CO04300576/TN02b Revision 00

February 2018



Document Control Sheet

Project Name:	Thanet Local Plan Evidence Base
Project Number:	CO04300576
Report Title:	Strategic Road Network Impacts – Technical Note
Report Number:	TN02b

Issue Status/Amendment	Prepared	Reviewed	Approved
00 (Draft for Comment)	Name: Shipra Samanta Signature: Date:	Name: Steve Whittaker Signature: Date:	Name: Jeff Webb Signature: Date:
01 (Agreed with client)	Name: Shipra Samanta Signature: Date: 16/01/18	Name: Jeff Webb Signature: Date: 16/01/18	Name: Jeff Webb Signature: Date: 16/01/18
02b (Technical Note)	Name: Shipra Samanta Signature: Date: 06/02/18	Name: Wayne Garside Signature: Date: 06/02/18	Name: Jeff Webb Signature: Date: 06/02/18
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:

Contents

1	Introduction	1
1.1	Overview	1
1.2	Methodology	2
2	Traffic Impact Assessment	4
2.1	Data Extraction	4
2.2	Data Calibration	4
2.3	Forecast Traffic Impact Assessment	5

1 Introduction

1.1 Overview

- 1.1.1 Amey have been commissioned to evaluate the likely traffic impact of the Thanet Local Plan on the Strategic Road Network (SRN), in particular at the Brenley Corner junction for London/west bound movements and at Duke of York junction for south bound traffic. A report on the same was submitted on 16/01/2018.
- 1.1.2 This technical note extends that work to assess the likely traffic impact of the Thanet Local Plan on A28.
- 1.1.3 The SRN does not extend into Thanet district itself. The A28 Sturry Road connects Thanet to the SRN network near Canterbury. Figure 1-1 shows the location of the A28 with respect to Thanet district.



Figure 1-1: A28 and Thanet District Location Plan

1.1.4 The A28 is a single carriageway to Sturry via St. Nicholas roundabout.

1.2 Methodology

1.2.1 A methodology for undertaking the traffic impact assessment on the SRN network was discussed and agreed in principle with HE by email on 26/07/17. The same methodology has been applied for analysis of impact on A28.

1.2.2 It was proposed to use mobile phone origin/destination (O/D) data, obtained on behalf of KCC for the development of a strategic transport model for the district, as the basis of the assessment.

1.2.3 In particular, a subset of the data called 'Select Link Analysis' (SLA) would be used, which captures all peak period O/D pairs using the key corridors in/out of the Thanet (e.g. the A299, A28 and A256). The extracted flows would be calibrated and uplifted, if required; to match observed traffic flows on these links.

1.2.4 The current level of Thanet generated peak hour traffic would be determined by grouping together the external Kent districts that would likely use them. Any assumptions required will be chosen to represent the worst case impact to ensure a robust assessment.

1.2.5 The adopted assumptions regarding the selection of districts where all traffic to/from Thanet are set out below.

A28 Sturry Road

A28, Thanet - Ashford (assume all traffic use A28)

A28, Thanet - Canterbury (assume all traffic use A28)

1.2.6 The forecast traffic impact of the Local Plan on A28 would be identified by applying uplift factors based upon the total % increase in traffic flows in Thanet in 2031 generated by a) committed (consented) development and b) the Local Plan allocation sites (non-consented).

1.2.7 The uplift factors are to be derived from a current strategic SATURN transport model developed on behalf of KCC and TDC to test Local Plan scenarios. The forecast scenarios from the SATURN model to be used to represent the a) consented and b) non-consented developments are as follows:

- 2031 Do Nothing (DN) – committed/permitted development and committed transport schemes only; and

- 2031 Do Something (DS) – as DN scenario plus projected Local Plan development and proposed transport strategy schemes.

1.2.8 The worst case weekday AM peak traffic impact of the non-consented development within the Thanet Local Plan on A28 would be established by simply subtracting the anticipated O/D flows in scenario a) from scenario b).

2 Traffic Impact Assessment

2.1 Data Extraction

2.1.1 The mobile phone data was available for the peak period (0700-1000). To derive an actual AM peak hour count, a factor of 0.35 and 0.39 (calculated from a recent link flow survey) was used for northbound and southbound traffic respectively. The selected OD pairs identified in the above methodology were then extracted for the AM peak hour and are shown in Table 2-1.

2017 AM Peak hour (0800-0900)			
SL01 - To Thanet	133	SL02 - From Thanet	284
From:		To:	
Ashford	23	Ashford	40
Canterbury	110	Canterbury	244

Table 2-1: Origin/Destination data to/from Thanet on A28

2.2 Data Calibration

2.2.1 The mobile phone data for trips using the A28 was compared to available link counts on the A28 to calibrate the data with respect to the total volume observed.

2.2.2 The A28 link traffic counts were derived from surveys on A28 Island Road undertaken on 09/01/2016. A comparison of the estimated peak hour counts from the mobile phone data and the link counts is provided in Table 2-2.

Direction	Mobile Phone Data		Link Counts (0800-0900)	Expansion Factor
	Peak Period (0700-1000)	Estimated Peak Hour (0800-0900)		
To Thanet (EB)	1301	455	587	1.29
From Thanet (WB)	1738	678	296	0.44

Table 2-2: Traffic Flow Comparison on A28

2.2.3 Using the above expansion factors, the current movements of Thanet generated traffic on A28 was established and is shown in Table 2-3.

2017 AM Peak hour (0800-0900)			
To Thanet	171	From Thanet	124
Ashford	30	Ashford	18
Canterbury	141	Canterbury	106

Table 2-3: Existing Thanet Traffic on A28 Sturry Road

2.3 Forecast Traffic Impact Assessment

2.3.1 The forecast impacts of the non-consented Local Plan sites on A28 has been assessed by applying appropriate uplift factors to the base flows in Table 2-.

2.3.2 A strategic transport model for Thanet has been used in order to derive appropriate uplift factors for a forecast baseline (2031 with committed development only) and a forecast scenario including all proposed Local Plan development (consented and non-consented).

2.3.3 Firstly, the 2031 baseline traffic was established using a factor derived from the increase in total travel demand from the 2017 base model to a 2031 Do Nothing scenario.

2.3.4 The 2031 baseline traffic was then uplifted using a factor derived from the increase in total travel demand from the 2031 Do Nothing scenario to the 2031 Do Something scenario.

2.3.5 The established uplift factors are shown in Table 2-4:

AM Peak	2017	2031 DN	2031 DM/DS
Total Travel Demand	295	340	391
Increase over Base		1.15	1.33
Increase over DN			1.15

Table 2-4: Forecast Flow Uplift Factors

2.3.6 The forecast traffic impacts of the non-consented development within the Thanet Local Plan on A28 has then been established by subtracting the 2031 baseline flows from the full Local Plan (2031 Do Something) scenario. The summary tables are shown in the following Tables 2-5 to 2-7.

2031 AM Peak hour (0800-0900)			
To Thanet	196	From Thanet	145
Ashford	35	Ashford	21
Canterbury	161	Canterbury	124

Table 2-5: Forecast Baseline Traffic on A28

2031 AM Peak hour (0800-0900)			
To Thanet	225	From Thanet	166
Ashford	39	Ashford	24
Canterbury	186	Canterbury	143

Table 2-6: Forecast Local Plan Traffic on A28

2031 AM Peak hour (0800-0900)			
To Thanet	29	From Thanet	22
Ashford	5	Ashford	3
Canterbury	24	Canterbury	19

Table 2-7: Forecast Non-Consented Traffic on A28

- 2.3.7 Tables 2-5 to 2-7 indicate that on A28 the total traffic impact of non-consented development within the Thanet Local Plan would be in the order of 53 vehicles in the AM peak in 2031.
- 2.3.8 Based upon the above assessments it is considered that the non-consented development within the Thanet Local Plan will have a negligible impact on A28. The forecast additional flows as a result of the Local Plan would represent a very small proportion of the total traffic flows at the junction both existing and in the future.