URS

Shepway District Council - Update to Transport Strategy

Highway Impact Report

DRAFT

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Prepared for:
Shepway District Council

UNITED KINGDOM & IRELAND

REVISION SCHEDULE					
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1 INTRODUCTION

1.1 Context

In May 2010, URS was commissioned by Shepway District Council (SDC) to prepare a Transport Strategy for the District. The role of the Transport Strategy is to form part of the evidence base for SDC's Core Strategy document, which in turn forms part of the Local Development Framework (LDF) for the District.

The Transport Strategy was published in January 2011, and at that time, the Core Strategy had been subject to public consultation at both issues and options stages. It is understood that the Core Strategy is now due to be reviewed by the Planning Inspectorate in early 2012.

1.2 Background

The Transport Strategy consists of a number of Technical Notes, including the Spreadsheet Model Report and Highways Impact Report. In June 2011, URS produced a 'Transport Strategy Addendum - Supplementary Junction Modelling' Briefing Note that presented an updated estimation of the residential elements of the Strategic Sites that may be delivered up to the year 2026, based on consultation with SDC. The note also presented the results of updated junction capacity assessments for selected junctions, in response to the change in development quantums.

The Shepway LDF Core Strategy public participation process ended on the 23rd September 2011, and at that juncture, a review was undertaken concerning the calculation of traffic growth, trip generation and Strategic Site development quantums. This led to the undertaking of an update of the spreadsheet traffic model that was developed as part of the Transport Strategy, and the production of the 'December 2011 update to the SDC Transport Strategy Spreadsheet Model' Briefing Note.

The purpose of this report is therefore to take forward the updated information contained within the spreadsheet model and review the highway impact analysis presented within the (January 2011) Transport Strategy and associated Briefing Notes. It should be noted that the updates undertaken have been carried out, as before, in liaison with SDC, KCC and the HA. In particular, a number of the updates have been undertaken at the request of KCC, as it is noted that since the time at which the Transport Strategy was prepared some additional information and supplementary software versions have become available. Further information is provided herein.

For clarity, **FIGURES 3.2** and **3.3** of the Highways Impact Report (as presented within the January 2011 Transport Strategy) have been updated to reflect the changes in the predicted operation of junctions and links across the District.

2 METHODOLOGY

2.1 Background

A similar methodology to that presented within the Highways Impact Report (January 2011) has been followed, however where possible, junction modelling has been undertaken utilising updated versions of industry standard software programmes, which have become available, since the last iteration of work was completed. As such, the following programmes were used:

- ARCADY (version 7) for roundabout junctions
- PICADY (version 5) for priority junctions
- LINSIG (version 3.1.15.0) for signalised junctions

Additionally, as per the Highways Impact Report (January 2011), link capacity assessments have been undertaken, based on the following advice notes:

- Design Manual for Roads and Bridges (DMRB) – TA 79/99 Traffic capacity of urban roads
- Design Manual for Roads and Bridges (DMRB) – TA 46/97 Traffic flow ranges for use in the assessment of new rural roads

2.2 Analysis

The analysis was undertaken using the same junction geometry input values that were used to inform the Highways Impact Report (January 2011). As such, the only changes made relate to the level of traffic passing through the junctions and links, and no allowance has been made for any alterations (or proposed alterations) in junction geometry since the production of the Highways Impact Report (January 2011). The results of the analysis therefore are directly comparable and clearly illustrate the influence of the changes in traffic flows.

The AM (0800-0900) and PM (1700-1800) peak hours of the following two scenarios have been assessed:

- 2026 Do Minimum – i.e. base traffic + traffic growth + committed development traffic (this includes the Nickolls Quarry development)
- 2026 Do Something – i.e. as above + traffic associated with the Strategic Sites

The 'Update to the SDC Transport Strategy Spreadsheet Model' Briefing Note (December 2011) provides further information relating to the Strategic Sites, however for clarity, **TABLE 2.1** below presents the anticipated level of development at each of the sites, for the year 2026.

TABLE 2.1 ANTICIPATED DEVELOPMENT AT THE STRATEGIC SITES (2026)

Development	Development Proposals
New Romney	300 residential dwellings
Folkestone Seafront	1000 residential dwellings
Nickolls Quarry[1]	*1050 residential dwellings, plus employment (15000sqm) and commercial (5000sqm)*
Risborough and Napier Barracks	1000 residential dwellings
Folkestone Racecourse	800 residential dwellings
Lympne Airfield	50 residential dwellings
Sellindge	250 residential dwellings
New Romney	300 residential dwellings

[1] *Nickolls Quarry has received planning permission and is included in the 2026 Do Minimum scenario*

A summary of the results of the highway impact analysis are presented in **TABLE 2.2** below.

TABLE 2.2 SUMMARY OF JUNCTION CAPACITY ANALYSIS (BASED ON DECEMBER 2011 UPDATE TO THE SPREADSHEET MODEL)

Junction ID	Junction	2026 Do Minimum		2026 Do Something	
		AM Peak Hour (0800-0900)	PM Peak Hour (1700-1800)	AM Peak Hour (0800-0900)	PM Peak Hour (1700-1800)
1	M20 Junction 11	✓✓	✓✓	✓✓	✓✓
2	M20 Junction 12	✓✓	✓✓	✓✓	✓✓
3(a)	M20 Junction 13 – Northern Roundabout	✓✓	✓✓	✓✓	✓✓
3(b)	M20 Junction 13 – Southern Roundabout	✓✓	✓✓	✓✓	✓✓
4(a)	A20 / A261 / Stone Street – Ashford Rd / Hythe Rd	×	×	×	×
4(b)	A20 / A261 / Stone Street – Ashford Rd / Stone Street	×	✓✓	×	✓
5	Lympne Hill Link Assessment only	✓✓	✓✓	✓✓	✓✓
6	A259 / A261 Scanlons Bridge	N/A	✓	N/A	×
7	Horn Street, at railway bridge Link Assessment only	✓	✓✓	✓	✓
8	Cheriton High Street / A20 Cheriton High Street (towards M20 J12)	×	×	×	×
9	Horn Street through Horn Street Village Link Assessment only	✓✓	✓✓	✓✓	✓✓
10	A2034 Cheriton Road / A20 Cherry Garden Avenue / B2064 Beachborough Road	×	×	×	×
11	B2064 Shorncliffe Road / Beachborough Road	✓✓	✓✓	✓✓	✓✓
12	A259 Sandgate High Street Link Assessment only	×	×	×	×
13	A2034 Cheriton Road / A259 Radnor Park Road	✓✓	✓✓	✓✓	✓✓
14	Folkestone One Way System:				
	Middleburg Square / Cheriton Gardens	✓✓	✓✓	✓✓	✓✓
	Foresters Way / Grace Hill	✓✓	×	✓✓	×
	Grace Hill / Foord Road / New Street	✓	N/A	✓	N/A
	Tontine Street / A2033 Dover Road	✓✓	✓✓	✓✓	✓✓
	A260 The Tram Road / A260 Harbour Street	×	✓	×	✓✓
15	A259 Lydd Road / B2075 Romney Road	✓	×	×	×
16	A259 High Street / B2071 Station Road	✓	×	×	×
17	A260 Spitfire Way / Canterbury Road / A20 / A260 Canterbury Road	×	×	×	×
18	A260 Alkham Valley Road / A20	×	✓	×	✓
19	A260 Alkham Valley Road / A260 Canterbury Road	×	×	×	×

✓✓= predicted to operate within ideal operational capacity; ✓= predicted to operate within theoretical capacity; ×= predicted to operate over capacity; N/A= traffic data unavailable

The junctions referred to above are presented at **FIGURE 2.1** for clarity, with the results presented at **TABLE 2.2** also shown at **FIGURES 2.2** and **2.3**, utilising the same format as presented previously in the Highways Impact Report (January 2011). In each case, the changes that have arisen through this update have been highlighted on the drawings, and are also identified in **TABLE 2.2** through the highlighting.

2.3 Results

Comparison of the above with the information presented at **TABLE 3.2** of the Highways Impact Report (January 2011) indicates that there have been some changes in the predicted operation of the identified junctions. In total, eight junctions are predicted to operate with greater efficiency than originally presented within the Highways Impact Report (January 2011), as listed below:

- **J.4(b)** A20 / A261 / Stone Street – Ashford Road Stone Street junction in the PM peak hour of the 2026 Do Something Scenario
- **J.11** B2064 Shorncliffe Road / Beachborough Road in the AM peak hour of both the 2026 Do Minimum and 2026 Do Something scenarios
- **J.13** A2034 Cheriton Road / A259 Radnor Park Road in the AM peak hour of the 2026 Do Something scenario
- **J.14** Grace Hill / Foord Road / New Street in the AM peak hour of both the 2026 Do Minimum and 2026 Do Something scenario
- **J.14** Tontine Street / A2033 Dover Road in the AM peak hour of both the 2026 Do Minimum and 2026 Do Something scenario
- **J.14** A260 The Tram Road / A260 Harbour Street in the PM peak hour of the 2026 Do Something Scenario
- **J.15** A259 Lydd Road / B2075 Romney Road in the AM peak hour of the 2026 Do Minimum scenario
- **J.18** A260 Alkham Valley Road / A20 in the PM peak hour of the 2026 Do Minimum scenario

Additionally, the modelling exercise identified one location where there is predicted to be a reduction in the efficiency of operation:

- **J.12** A259 Sandgate High Street (link assessment) in the PM peak hour of the 2026 Do Minimum scenario

It is anticipated that these changes in the predicted operation of the links and junctions are attributable to a combination of the following elements:

- Greater accuracy of junction modelling programmes
- Updates undertaken with regards to the calculation of traffic growth and trip generation
- Revised Strategic Site development quantums

Nevertheless, it is recommended that should the respective Strategic Sites (or any other proposed development) be delivered, detailed Transport Assessments should be considered in assessing the potential impact of such sites on the highway network.

3 SUMMARY

In May 2010, URS was commissioned by Shepway District Council (SDC) to prepare a Transport Strategy for the District. The role of the Transport Strategy is to form part of the evidence base for SDC's Core Strategy document, which in turn forms part of the Local Development Framework (LDF) for the District.

The Transport Strategy was published in January 2011, and since this time a number of updates have been provided at the request of SDC, KCC and the HA. The information contained within this document considers these updates in terms of the implications for the predicted operation of the highway network within the District for the 2026 Do Minimum and 2026 Do Something scenarios.

The results of the analysis suggest that eight of the identified junctions are predicted to operate with an improved efficiency to that originally presented within the Highways Impact Report (January 2011), which forms part of the evidence base of the Transport Strategy (January 2011). One link is predicted to operate with less efficiency however.

Whilst the information contained within this document provides an overview of the predicted operation of each of the identified links and junctions, it is recommended that more detailed Transport Assessments are undertaken for specific sites (Strategic or otherwise) as part of the planning application process, as appropriate.

1 - M20 Junction 11
2 - M20 Junction 12
3 - M20 Junction 13
4 - A20 / A261 / Stone Street / Ashford Rd / Hythe Rd
5 - Lympne Hill *Link Assessment*
6 - A259 / A261 Scanlons Bridge
7 - Horn Street (at railway bridge) *Link Assessment*
8 - Cheriton High St / A20 Cheriton High St (towards M20)
9 - Horn Street (in village) *Link Assessment*
10 - A2034 Cheriton Rd / A20 Cherry Garden Ave / B2064 Beachborough Rd
11 - B2064 Shorncliffe Rd / Beachborough Rd
12 - A259 Sandgate High St *Link Assessment*
13 - A2034 Cheriton Rd / A259 Radnor Park Rd
14 - Middleburg Square / Cheriton Gardens
14 - Foresters Way / Grace Hill
14 - Grace Hill / Foord Rd / New Street
14 - Tontine Street / A2033 Dover Rd
14 - A260 The Tram Rd / A260 Harbour Street
15 - A259 Lydd Rd / B2075 Romney Rd
16 - A259 High Street / B2071 Station Rd
17 - A260 Spitfire Way / Canterbury Rd / A20 / A260 Canterbury Rd
18 - A260 Alkham Valley Rd / A20
19 - A260 Alkham Valley Rd / A260 Canterbury Rd

Location of Junctions for Analysis

Figure 2.1

Drawing Ref:M:\Development Control\D130901 Shepway\Drawings\Figures\TRANSPORT STRATEGY\Highway Note\2-1 Location of Junctions.ai

1 - M20 Junction 11
2 - M20 Junction 12
3(a) - M20 J13 - Northern Roundabout
3(b) - M20 J13 - Southern Roundabout
4(a) - A20 / A261 / Stone Street - Ashford Rd / Hythe Rd
4(b) - A20 / A261 / Stone Street - Ashford Rd / Stone Street
5 - Lympne Hill *Link Assessment*
6 - A259 / A261 Scanlons Bridge
7 - Horn Street (at railway bridge) *Link Assessment*
8 - Cheriton High St / A20 Cheriton High St (towards M20)
9 - Horn Street (in village) *Link Assessment*
10 - A2034 Cheriton Rd / A20 Cherry Garden Ave / B2064 Beachborough Rd
11 - B2064 Shorncliffe Rd / Beachborough Rd
12 - A259 Sandgate High St *Link Assessment*
13 - A2034 Cheriton Rd / A259 Radnor Park Rd
14 - Middleburg Square / Cheriton Gardens
14 - Foresters Way / Grace Hill
14 - Grace Hill / Foord Rd / New Street
14 - Tontine Street / A2033 Dover Rd
14 - A260 The Tram Rd / A260 Harbour Street
15 - A259 Lydd Rd / B2075 Romney Rd
16 - A259 High Street / B2071 Station Rd
17 - A260 Spitfire Way / Canterbury Rd / A20 / A260 Canterbury Rd
18 - A260 Alkham Valley Rd / A20
19 - A260 Alkham Valley Rd / A260 Canterbury Rd

Key
- within operational capacity
- within theoretical capacity
- over capacity
- change since previous assessment (Jan 2011)

NOT TO SCALE

2026 Do Minimum Highway Operational Analysis

Figure 2.2

Drawing Ref:M:\Development Control\D130901 Shepway\Drawings\Figures\TRANSPORT STRATEGY\Highways Note\3-2 2026 DM OA.ai

1 - M20 Junction 11
2 - M20 Junction 12
3(a) - M20 J13 - Northern Roundabout
3(b) - M20 J13 - Southern Roundabout
4(a) - A20 / A261 / Stone Street - Ashford Rd / Hythe Rd
4(b) - A20 / A261 / Stone Street - Ashford Rd / Stone Street
5 - Lympne Hill *Link Assessment*
6 - A259 / A261 Scanlons Bridge
7 - Horn Street (at railway bridge) *Link Assessment*
8 - Cheriton High St / A20 Cheriton High St (towards M20)
9 - Horn Street (in village) *Link Assessment*
10 - A2034 Cheriton Rd / A20 Cherry Garden Ave / B2064 Beachborough Rd
11 - B2064 Shorncliffe Rd / Beachborough Rd
12 - A259 Sandgate High St *Link Assessment*
13 - A2034 Cheriton Rd / A259 Radnor Park Rd
14 - Middleburg Square / Cheriton Gardens
14 - Foresters Way / Grace Hill
14 - Grace Hill / Foord Rd / New Street
14 - Tontine Street / A2033 Dover Rd
14 - A260 The Tram Rd / A260 Harbour Street
15 - A259 Lydd Rd / B2075 Romney Rd
16 - A259 High Street / B2071 Station Rd
17 - A260 Spitfire Way / Canterbury Rd / A20 / A260 Canterbury Rd
18 - A260 Alkham Valley Rd / A20
19 - A260 Alkham Valley Rd / A260 Canterbury Rd

Key
within operational capacity
within theoretical capacity
over capacity
change since previous assessment (Jan 2011)

NOT TO SCALE

2026 Do Something Highway Operational Analysis

Figure 2.3

Drawing Ref:M:\Development Control\D130901 Shepway\Drawings\Figures\TRANSPORT STRATEGY\Highways Note\2-3 2026 DS OA.ai