
SWALE HIGHWAY MODEL

LOCAL PLAN FUTURE SCENARIO TESTING REPORT- FINAL



20TH MAY 2019

SWECO UK LIMITED

Change List

| VER. | DATE | STATUS | PREPARED | REVIEWED | APPROVED |
|-------------|-------------|----------------|-----------------|-----------------|-----------------|
| 1 | 15/04/19 | DRAFT | CELINE TANG | FAIZ NASSIRI | FAIZ NASSIRI |
| 2 | 20/05/19 | FINAL DRAFT | CELINE TANG | FAIZ NASSIRI | FAIZ NASSIRI |

Table of Contents

| | |
|--|-----------|
| Glossary | 7 |
| 1 Introduction | 8 |
| 1.1 Background | 8 |
| 1.2 Context | 8 |
| 1.3 Purpose of the Report | 8 |
| 1.4 Report Structure | 8 |
| 2 2027 and 2037 Swale Reference Case Models | 10 |
| 2.1 Forecast Approach | 10 |
| 2.2 Uncertainty Log- Reference Case | 10 |
| 3 Local Plan Future Scenario Tests | 15 |
| 4 Transport Interventions | 17 |
| 4.1 Introduction | 17 |
| 4.2 SNRR (Sittingbourne Northern Relief Road) | 17 |
| 4.3 M2 J7 | 17 |
| 4.4 SSRR (Sittingbourne Southern Relief Road) | 18 |
| 4.5 Bus Priority | 19 |
| 4.6 M2 J5a | 19 |
| 5 Local Plan Scenarios- Developments Allocation | 20 |
| 5.1 Introduction | 20 |
| 5.2 Scenario 1 | 20 |
| 5.3 Scenario 2 | 21 |
| 5.4 Scenario 3 | 21 |
| 5.5 Scenario 4 | 22 |
| 6 Forecast Demand | 24 |
| 6.1 Overview | 24 |
| 6.2 Trip generation and distribution for modelled developments | 24 |
| 6.3 Matrix Building | 27 |
| 6.3.1 Growth Factors | 27 |
| 6.3.2 Unconstrained growth scenarios within Swale | 29 |
| 6.3.3 Matrix Totals | 30 |
| 7 Forecast Supply | 35 |
| 7.1 Introduction | 35 |
| 7.2 Generalised cost | 35 |
| 8 Model Results | 36 |
| 8.1 Forecast Network Overall Performance | 36 |

| | | |
|-------------------|-------------------------------|------------|
| 8.2 | Traffic Flows | 39 |
| 8.3 | Network Delays and Congestion | 76 |
| 8.4 | Journey Times | 83 |
| 9 | Conclusions | 88 |
| Appendix A | | 89 |
| Appendix B | | 100 |
| Appendix C | | 102 |
| Appendix D | | 107 |

Table of Figures

| | | |
|-------------|---|----|
| Figure 2-1 | Flowchart of forecasting process | 10 |
| Figure 2-2 | 2027 housing developments | 13 |
| Figure 2-3 | 2037 housing developments | 13 |
| Figure 2-4 | Transport schemes in Reference Case | 14 |
| Figure 4-1 | SNRR coding in SATURN | 17 |
| Figure 4-2 | Schematic layout for the M2 J7 | 18 |
| Figure 4-3 | Schematic drawing of the proposed SSRR | 18 |
| Figure 4-4 | Schematic drawing for M2 J5a | 19 |
| Figure 6-1 | Model zones by classified area | 25 |
| Figure 6-2 | TEMPRO regions | 29 |
| Figure 6-3 | Swale Highways Model Zones | 30 |
| Figure 8-1 | Average speed in 2037 Scenarios (kph) | 38 |
| Figure 8-2 | Total travel time in 2037 Scenarios (PCU hrs) | 38 |
| Figure 8-3 | Total travel distance in 2037 Scenarios (PCU kms) | 39 |
| Figure 8-4 | Model flow difference between 2037 Scenario 2 and Scenario 1 -AM | 40 |
| Figure 8-5 | Model flow difference between 2037 Scenario 2 and Scenario 1 -Sittingbourne AM | 40 |
| Figure 8-6 | Model flow difference between 2037 Scenario 2 and Scenario 1 - PM | 41 |
| Figure 8-7 | Model flow difference between 2037 Scenario 2 and Scenario 1 -Sittingbourne PM | 41 |
| Figure 8-8 | Model flow difference between 2037 Scenario 3 and Scenario 1 -AM | 42 |
| Figure 8-9 | Model flow difference between 2037 Scenario 3 and Scenario 1 – Sittingbourne AM | 42 |
| Figure 8-10 | Model flow difference between 2037 Scenario 3 and Scenario 1 -PM | 43 |
| Figure 8-11 | Model flow difference between 2037 Scenario 3 and Scenario 1 – Sittingbourne PM | 43 |
| Figure 8-12 | Model flow difference between 2037 Scenario 4 and Scenario 1 -AM | 44 |
| Figure 8-13 | Model flow difference between 2037 Scenario 4 and Scenario 1 – Sittingbourne AM | 44 |
| Figure 8-14 | Model flow difference between 2037 Scenario 4 and Scenario 1 -PM | 45 |
| Figure 8-15 | Model flow difference between 2037 Scenario 4 and Scenario 1 – Sittingbourne PM | 45 |
| Figure 8-16 | Model flow difference between 2037 Scenario 3 and Scenario 2 -AM | 46 |
| Figure 8-17 | Model flow difference between 2037 Scenario 3 and Scenario 2 – Sittingbourne AM | 46 |
| Figure 8-18 | Model flow difference between 2037 Scenario 3 and Scenario 2 -PM | 47 |

| | |
|--|----|
| Figure 8-19 Model flow difference between 2037 Scenario 3 and Scenario 2 – Sittingbourne PM | 47 |
| Figure 8-20 Model flow difference between 2037 Scenario 4 and Scenario 2 -AM | 48 |
| Figure 8-21 Model flow difference between 2037 Scenario 4 and Scenario 2 – Sittingbourne AM | 48 |
| Figure 8-22 Model flow difference between 2037 Scenario 4 and Scenario 2 -PM | 49 |
| Figure 8-23 Model flow difference between 2037 Scenario 4 and Scenario 2 – Sittingbourne PM | 49 |
| Figure 8-24 Flows on key roads in Sittingbourne Scenario 1 AM | 50 |
| Figure 8-25 Flows on key roads in Faversham Scenario 1 AM | 51 |
| Figure 8-26 Flows on key roads in Isle of Sheppey Scenario 1 AM | 52 |
| Figure 8-27 Flows on key roads in Sittingbourne Scenario 2 AM | 53 |
| Figure 8-28 Flows on key roads in Faversham Scenario 2 AM | 54 |
| Figure 8-29 Flows on key roads in Isle of Sheppey Scenario 2 AM | 55 |
| Figure 8-30 Flows on key roads in Sittingbourne Scenario 3 AM | 56 |
| Figure 8-31 Flows on key roads in Faversham Scenario 3 AM | 57 |
| Figure 8-32 Flows on key roads in Isle of Sheppey Scenario 3 AM | 58 |
| Figure 8-33 Flows on key roads in Sittingbourne Scenario 4 AM | 59 |
| Figure 8-34 Flows on key roads in Faversham Scenario 4 AM | 60 |
| Figure 8-35 Flows on key roads in Isle of Sheppey Scenario 4 AM | 61 |
| Figure 8-36 Flows on key roads in Sittingbourne Scenario 1 PM | 62 |
| Figure 8-37 Flows on key roads in Faversham Scenario 1 PM | 63 |
| Figure 8-38 Flows on key roads in Isle of Sheppey Scenario 1 PM | 64 |
| Figure 8-39 Flows on key roads in Sittingbourne Scenario 2 PM | 65 |
| Figure 8-40 Flows on key roads in Faversham Scenario 2 PM | 66 |
| Figure 8-41 Flows on key roads in Isle of Sheppey Scenario 2 PM | 67 |
| Figure 8-42 Flows on key roads in Sittingbourne Scenario 3 PM | 68 |
| Figure 8-43 Flows on key roads in Faversham Scenario 3 PM | 69 |
| Figure 8-44 Flows on key roads in Isle of Sheppey Scenario 3 PM | 70 |
| Figure 8-45 Flows on key roads in Sittingbourne Scenario 4 PM | 71 |
| Figure 8-46 Flows on key roads in Faversham Scenario 4 PM | 72 |
| Figure 8-47 Flows on key roads in Isle of Sheppey Scenario 4 PM | 73 |
| Figure 8-48 Junctions within the model (wider area) | 77 |
| Figure 8-49 Junctions in Swale and Faversham | 77 |
| Figure 8-50 Junctions and transport schemes | 78 |
| Figure 8-51 Journey Time Routes | 83 |

Table of Tables

| | |
|--|----|
| Table 2-1 Classification of near certain and more than likely schemes as per WebTAG. | 11 |
| Table 2-2 Swale housing growth per year- Reference Case | 12 |
| Table 3-1 Local Plan Scenario transport interventions and forecast years | 16 |
| Table 5-1 Scenario 1 additional housing | 20 |
| Table 5-2 Scenario 1 additional employment | 21 |
| Table 5-3 Scenario 3 additional housing | 21 |
| Table 5-4 Scenario 3 additional employment | 22 |
| Table 5-5 Scenario 4 additional housing | 23 |
| Table 5-6 Scenario 4 additional employment | 23 |
| Table 6-1 TRICs trip rates by classified area | 24 |
| Table 6-2 Employment density by land use class | 25 |
| Table 6-3 Factors applied to convert from peak period to peak hour | 26 |
| Table 6-4 NTEM v7.2 growth factors for 2017-2027 AM and PM peak hours | 27 |
| Table 6-5 NTEM v7.2 growth factors for 2017-2037 for AM and PM peak hours | 28 |
| Table 6-6 NTEM v7.2 growth factors for 2017-2042 for AM and PM peak hours | 28 |
| Table 6-7 LGV and HGV NTM factors | 29 |
| Table 6-8 Scenario 1/2 AM matrix totals | 31 |

| | |
|---|----|
| Table 6-9 Scenario 3 AM matrix totals | 31 |
| Table 6-10 AM Scenario 4 AM matrix totals | 31 |
| Table 6-11 Scenario 1/2 PM matrix totals | 32 |
| Table 6-12 Scenario 3 PM matrix totals | 32 |
| Table 6-13 Scenario 4 PM matrix totals | 32 |
| Table 6-14 Housing split by area for 2027 scenarios | 33 |
| Table 6-15 Housing split by area for 2037 scenarios | 33 |
| Table 6-16 Additional Housing proportions by area for 2027 | 33 |
| Table 6-17 Additional Housing proportions by area for 2037 | 33 |
| Table 7-1 Value of time assumptions, pence per minute (PPM, 2010 prices, 2027/2037 values)..... | 35 |
| Table 7-2 Value of vehicle operating cost assumptions, pence per kilometre (PPK, 2010 prices, 2027/2037 values) | 35 |
| Table 8-1 Network performance for Local Plan Option Test 2027 AM scenarios..... | 36 |
| Table 8-2 Network performance for Local Plan Option Test 2027 PM scenarios..... | 36 |
| Table 8-3 Network performance for Local Plan Option Test 2037 AM scenarios..... | 37 |
| Table 8-4 Network performance for Local Plan Option Test 2037 PM scenarios..... | 37 |
| Table 8-5 Sittingbourne AM Selected Links Flow Summary..... | 74 |
| Table 8-6 Faversham AM Selected Links Flow Summary..... | 75 |
| Table 8-7 Isle of Sheppey AM Selected Links Flow Summary | 75 |
| Table 8-8 Summary of the congestions (weighted junction V/C)..... | 79 |
| Table 8-9 Summary of the congestions (highest junction V/C)..... | 81 |
| Table 8-10 Statistics for Route 1..... | 84 |
| Table 8-11 Statistics for Route 2..... | 84 |
| Table 8-12 Statistics for Route 3..... | 85 |
| Table 8-13 Statistics for Route 4..... | 85 |
| Table 8-14 Statistics for Route 5..... | 86 |

Glossary

DfT: Department for Transport

Furness: process of growing base year matrices to produce future year matrices

GIS: Geographical Information System

LMVR: Local Model Validation Report

LSOA: A Lower Layer Super Output Area

NTEM: National Trip End Model

NTM: National Transport Model

Overcapacity queues: Extra time spent in queues at over-capacity junctions waiting for the cycle in which the vehicle exits

PCU: Passenger Car Unit. A measure of how much space is taken up on the highway network by different vehicles e.g. HGV= 2 PCUs, Car= 1 PCU

PPK: Pence Per Kilometre - a component of generalised cost

PPM: Pence Per Minute - a component of generalised cost

P1X: Interactive analysis of results in SATURN

RAB: roundabout

RTF: Road Traffic forecast

SATURN: Simulation and Assignment of Traffic to Urban Road Networks- transport modelling software package used to develop highway assignment models

SATURN buffer network: Modelled area comprised of links with no explicit junction modelling

SERTM: South-East Regional Traffic Model

SHM: Swale Highway Model

SNRR: Sittingbourne Northern Relief Road

Simulation area: Area of detailed modelling provided by SATURN simulation network

Speed-flow area: Extension of the fully modelled area from the simulation area with capacity restraint provided by link speed-flow curves only

SSRR: Sittingbourne Southern Relief Road

TEMPro: Trip End Model Presentation Program

Transient queues: The time spent by vehicles in queues which, in the case of signals, clear during a single cycle

VOC: Vehicle Operating Cost

V/C: Volume/Capacity ratio. Weighted Volume /Capacity of a junction averages out capacity over all arms of the junction; and Highest Volume /Capacity reflects the case for the 'worst' arm of the junction.

VoT: Value of Time

WebTAG: Transport analysis guidance

1 Introduction

1.1 Background

The Swale Highway Model (SHM) has been developed by Sweco for 2017 (base year), 2027 and 2037 reference case (forecast years) to test the traffic impacts of both new developments and transport infrastructure across Swale. For Local Plan scenario tests, one of the future scenarios (Scenario 4) has been run to 2042, as this involves a large development site which would continue to build out beyond 2037. The model will be used to provide an independent evidence base for the assessment of the emerging Local Plan by Swale Borough Council (SBC).

1.2 Context

A strategic highway assignment model represents a simplified version of the real-life situation. The structure and level of detail required for an application is determined by a consideration of the ultimate use of the model. As models serve a variety of functions, the nature of models is similarly varied, ranging from highly detailed urban situations to more strategic regional and inter urban contexts.

In this instance, the model has been designed to cover a sufficiently wide area to capture the strategic impacts within the Swale district. As such detailed route choices between (and through) Swale, Faversham and Sheppey have been fully reflected in the model as these are considered the key development areas. Furthermore, the validation of the model reflected this with a focus on ensuring that the following were adequately replicated:

- Representation of the mix of vehicle types and purposes;
- Route choice between key towns within the Swale district;
- Traffic flows on major links/routes; and
- Current travel times on the network.

1.3 Purpose of the Report

The Local Plan Option Testing Report is intended to document all key aspects of the future year traffic forecasting for each Swale Local Plan scenario and sets out the assumptions on which these forecasts have been based on. It is intended that the Local Plan Option Testing Report is a free-standing document that covers all aspects of the forecasting for the Local Plan Option Testing. However, more detail on many aspects of the process can be found in the appropriate reports and technical notes prepared during the study. As such the following reports are also available for further information on the development of the Base year model and the Reference Case for 2027 and 2037;

- Swale Highway Model- Base Year Local Model Validation Report- Final Draft, dated 5th June 2018
- Swale Highway Model- Reference Case Forecasting Report- Draft, dated 14th March 2019

1.4 Report Structure

This report summarises the development of the Swale Local Plan Option Test scenarios. This report is structured as follows:

- Chapter 2 provides a summary of the development of the 2027 and 2037 Swale Reference Case models;
- Chapter 3 provides a summary of the Local Plan scenarios;

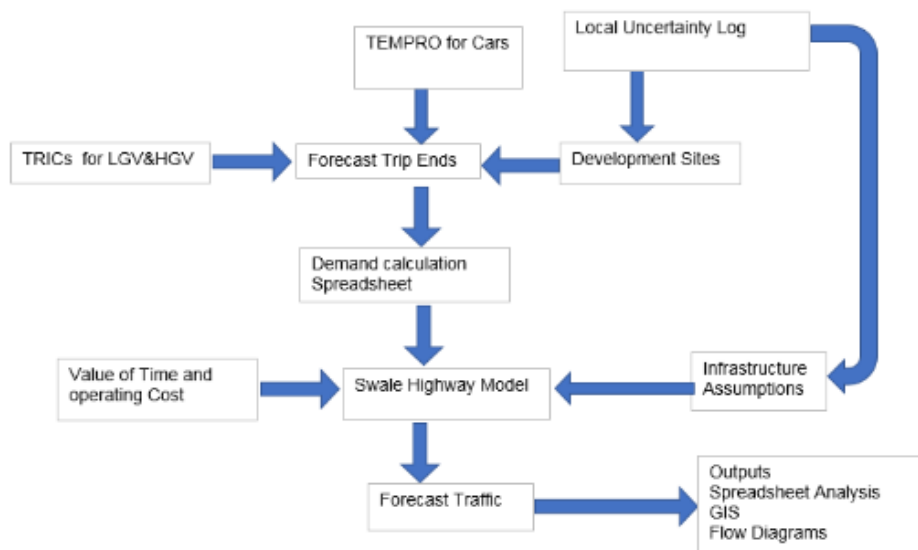
- Chapter 4 details the transport interventions in the Local Plan scenarios;
- Chapter 5 details the uncertainty log and additional housing and employment developments for each Local Plan scenario.
- Chapter 6 details the use of RTF, NTEM and TEMPRO to create the Local Plan scenarios;
- Chapter 7 details the assumptions applied in the development of the forecast networks;
- Chapter 8 summarises the results and analysis of the Local Plan SATURN assignments; and
- Chapter 8 contains a concluding summary.

2 2027 and 2037 Swale Reference Case Models

2.1 Forecast Approach

A Reference Case model was produced for two forecast years, 2027 and 2037. An overview of the approach taken to the forecasting of the reference case models can be seen in Figure 2-1 below.

Figure 2-1 Flowchart of forecasting process



The traffic forecasts account for future proposals for residential and employment developments in the local area as well as corresponding transport network changes. The forecast scenarios comprise the following:

- A set of transport network changes based on the local uncertainty log;
- Assumptions about changes in values of time and vehicle operating costs over time;
- A specific set of development assumptions based on the local Uncertainty Log;
- Application of National Trip End Model (NTEM) growth factors extracted from TEMPRO7.2 as a constraint on trip growth for cars;
- Application of growth of freight traffic from the DfT Road Transport Forecasts (RTF2015); and
- No TEMPRO constraining was applied to the growth following agreement with KCC/SBC.

2.2 Uncertainty Log- Reference Case

As outlined in WebTAG guidance unit M4, Forecasting and Uncertainty, a Reference Case scenario should be developed based on the most unbiased and realistic set of assumptions. Thus, the Reference Case scenario includes the following assumptions:

- Inputs categorised as ‘near certain’ were included; and
- Inputs categorised as ‘more than likely’ were included.

In line with WebTAG unit M4, an uncertainty log has been developed. As stated in the unit, the purpose of the uncertainty log is to record the central forecasting assumptions

that underpin the Reference Case scenario and record the degree of uncertainty around these central assumptions. These assumptions will be the basis for developing a set of alternative scenarios.

The uncertainty log deals with local uncertainty about future land use (demand side uncertainty), and transport schemes (supply side uncertainty) which will affect the transport network. The uncertainty relates to the likelihood of a given scheme or development taking place, as well as the nature and size of the development. Table 2-1 provides the WebTAG definitions of the uncertainty log classifications.

Table 2-1 Classification of near certain and more than likely schemes as per WebTAG

| <i>Probability of the input</i> | <i>Local authority / development scheme</i> |
|---|--|
| Near certain: <i>The outcome will happen or there is a high probability that it will happen.</i> | <ul style="list-style-type: none"> • <i>Intent announced by proponent to regulatory agencies;</i> • <i>Approved development proposals; and</i> • <i>Projects under construction</i> |
| More than likely: <i>The outcome is likely to happen but there is some uncertainty.</i> | <ul style="list-style-type: none"> • <i>Submission of planning or consent application imminent;</i> • <i>Development application within the consent process; and</i> • <i>Projects under construction</i> |

The uncertainty log has been developed in accordance with the 'Local Plan' information provided by Kent County Council for the Reference Case scenario. It has been agreed with KCC and SBC to use the following assumptions for housings in the development of the Reference Case:

- I) Keep the housing projections to 2022 as shown in Table 7 of " Statement of Housing Land Supply 2016/2017- Partial Update December 2017";
- II) From 2023 to 2031 allow for an additional 278 units per year which is the difference between 1054 dwellings per annum and 776 per annum as stated for the OAN target (Objectively Assessed Need). This growth (i.e. 278 units) has been applied proportionally to all allocated sites between 2017 and 2031 in the Housing Land Supply document; and
- III) From 2032 to 2037 allow 1054 per year. This growth has been applied proportionally to all sites allocated between 2017 and 2031.

It should be noted that for the Local Plan scenarios, the additional housing in II and III were replaced by the new development allocations provided by KCC and SBC as outlined in Section 3.

Table 2-2 below shows the total housing each year from 2018 until 2037.

Table 2-2 Swale housing growth per year- Reference Case

| Year | Based on Table 7 of the Housing Land supply 2016/17 | | | | | | Target as agreed on 7/8/2018 | | | |
|-------------|---|--------------|-----------|---------|-----------|---------------|------------------------------|---------------------|---------------|------------------|
| | Completed | Allocated LP | Permitted | Pending | Windfalls | Total by year | Total Cumulative | Additional per year | Total by year | Total Cumulative |
| 2017 | 1830 | | | | | 1830 | 1830 | 0 | 1830 | 1830 |
| 2018 | | 0 | 432 | 0 | 0 | 432 | 2262 | 0 | 432 | 2262 |
| 2019 | | 50 | 337 | 0 | 0 | 387 | 2649 | 0 | 387 | 2649 |
| 2020 | | 207 | 402 | 1 | 0 | 610 | 3259 | 0 | 610 | 3259 |
| 2021 | | 998 | 355 | 21 | 0 | 1374 | 4633 | 0 | 1374 | 4633 |
| 2022 | | 1427 | 282 | 24 | 0 | 1733 | 6366 | 0 | 1733 | 6366 |
| 2023 | | 937 | 189 | 0 | 110 | 1236 | 7602 | 278 | 1514 | 7880 |
| 2024 | | 947 | 181 | 0 | 110 | 1238 | 8840 | 278 | 1516 | 9396 |
| 2025 | | 842 | 110 | 0 | 110 | 1062 | 9902 | 278 | 1340 | 10736 |
| 2026 | | 628 | 74 | 0 | 110 | 812 | 10714 | 278 | 1090 | 11826 |
| 2027 | | 590 | 19 | 0 | 110 | 719 | 11433 | 278 | 997 | 12823 |
| 2028 | | 595 | 4 | 0 | 110 | 709 | 12142 | 278 | 987 | 13810 |
| 2029 | | 612 | 4 | 0 | 110 | 726 | 12868 | 278 | 1004 | 14814 |
| 2030 | | 554 | 0 | 0 | 110 | 664 | 13532 | 278 | 942 | 15756 |
| 2031 | | 435 | 0 | 0 | 110 | 545 | 14077 | 278 | 823 | 16579 |
| 2032 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 17633 |
| 2033 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 18687 |
| 2034 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 19741 |
| 2035 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 20795 |
| 2036 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 21849 |
| 2037 | | 0 | 0 | 0 | 0 | 0 | 0 | 1054 | 1054 | 22903 |

Figure 2-2 and Figure 2-3 show the developments identified as the Bearing Fruit developments for 2027 and 2037 respectively. The uncertainty log is listed in full in **Appendix A**.

Figure 2-2 2027 housing developments

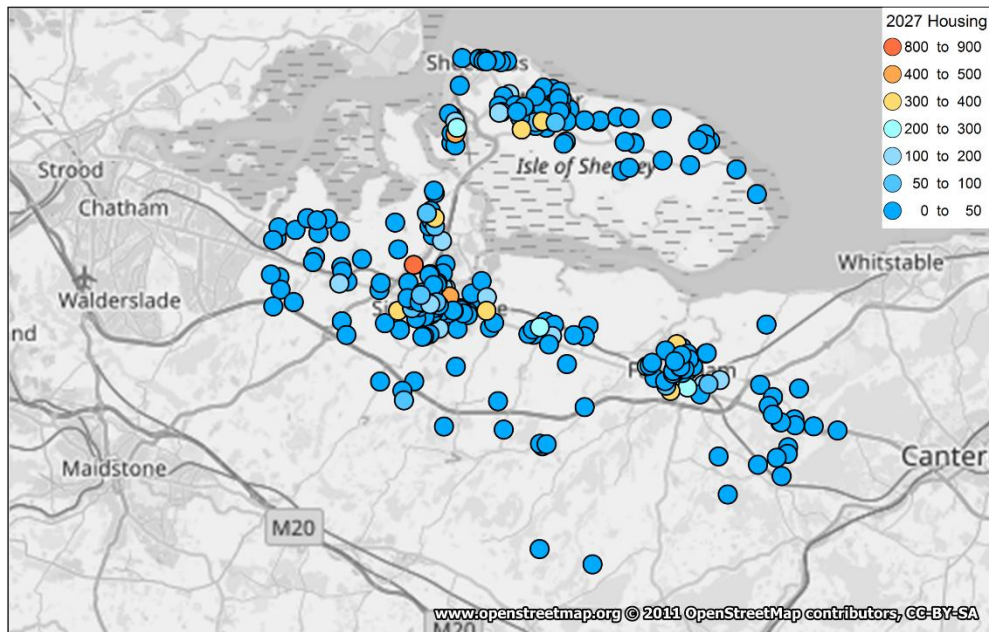
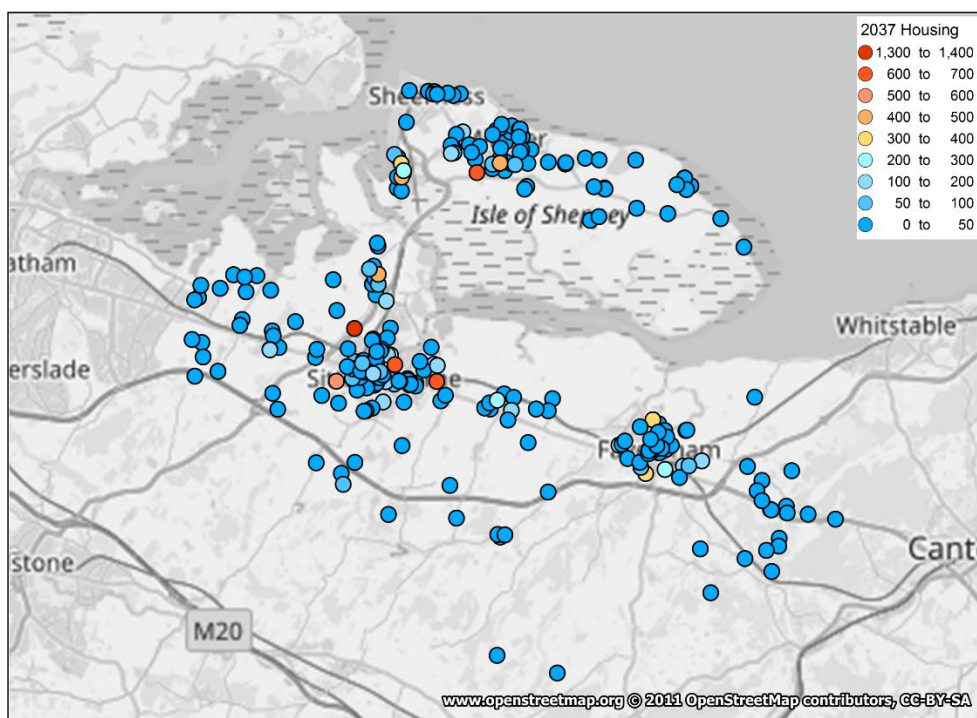


Figure 2-3 2037 housing developments

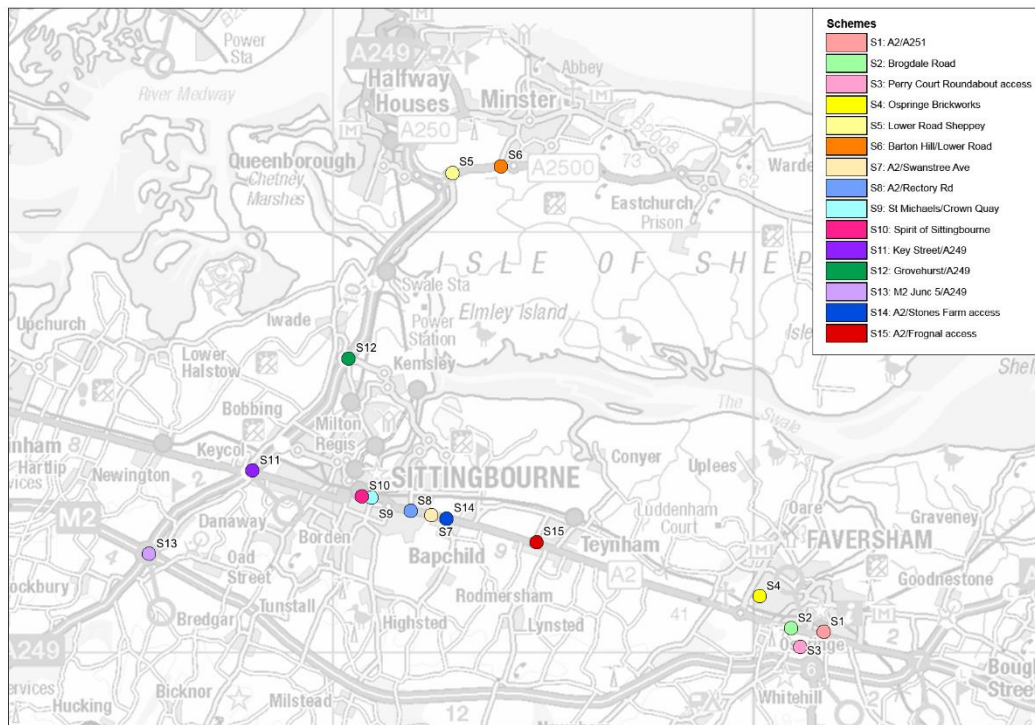


From the uncertainty log the following transport schemes have been identified as either 'Near certain' or 'More than likely' and have hence been included in the Reference Case scenario. These are listed below and can be seen in Figure 2-4:

- A2/A251;
- Brogdale Road;

- Perry Court Roundabout access;
- Ospringe Brickworks access;
- Lower Road Sheppey;
- Barton Hill/Lower Road;
- A2/Swanstree Ave;
- A2/Rectory Rd;
- St Michaels/Crown Quay;
- Spirit of Sittingbourne;
- Key Street/A249;
- Grovehurst/A249;
- M2 Junction 5/A249;
- A2/Stones Farm access Bapchild; and
- A2/Froggnal access Teynham.

Figure 2-4 Transport schemes in Reference Case



3 Local Plan Future Scenario Tests

It was agreed with KCC/SBC to undertake four Local Plan scenarios for weekday AM and PM peak hour as follows:

- Scenario 1 “Do-Minimum” (DM) Weighted Sittingbourne:** All Bearing Fruits Local Plan developments plus new development allocations post 2022 as provided by SBC and KCC. Post 2022 new allocations were weighted 60/40 Sittingbourne and Sheppey/Faversham (see Section 6, Tables 6-16 and 6-17 below). Because the Bearing Fruits allocations are still building out, the overall development weighting was 70/30 Sittingbourne and Sheppey/ Faversham). No further transport mitigations;
- Scenario 2 “Do-Something Weighted Sittingbourne”:** All Bearing Fruits Local Plan developments plus new development allocations post 2022 as provided by SBC and KCC. Post 2022 new allocations were weighted 60/40 Sittingbourne and Sheppey / Faversham (See Section 6, Tables 6-16 and 6-17 below). Because the Bearing Fruits allocations are still building out, the overall development weighting was 70/30 Sittingbourne and Sheppey/ Faversham). Sittingbourne Northern Relief Road (SNRR) and M2 Junction 7 improvement have been included in the network;
- Scenario 3: “Do-Something Weighted Faversham”** All Bearing Fruits Local Plan developments plus new development allocations post 2022 as provided by SBC and KCC. Post 2022 new allocations were weighted 65/35 Faversham / Sittingbourne and Sheppey (see Section 6, and Table 6-17 below). Because of the Bearing Fruits allocations still building out the overall development weighting was 62/38 Sittingbourne and Sheppey/ Faversham). Sittingbourne Northern Relief Road (SNRR) and M2 Junction 7 improvement have been included in the network; and
- Scenario 4: “Do-Something New Settlement approach”** New development allocations post 2022 were focused in new settlements at South East Sittingbourne and South East Faversham (a Sittingbourne / Faversham split of 74/26, with no new allocations at Sheppey post 2022). Because the Bearing Fruits allocations are still building out, the overall development weighting is 79/21 Sittingbourne and Sheppey/ Faversham). SNRR, SSRR (Sittingbourne Southern Relief Road), M2 junction 7, M2J5a have been added to the network.

The detail of distribution of development between the Sittingbourne / Sheppey and Faversham areas is shown in Table 6-15 below for total development 2017-2037, and in Table 6-17 for the assumed new allocations 2022-2037.

The transport interventions and forecast years have been agreed with Kent County Council (KCC) as summarised in Table 3-1 below:

Table 3-1 Local Plan Scenario transport interventions and forecast years

| Scenario | Interventions | | | | 2027 | 2037 | 2042 |
|----------|---------------|-------|------|--------|------|------|------|
| | SNRR | M2 J7 | SSRR | M2 J5a | | | |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Scenario 1: DM Weighted Sittingbourne | | | | | ✓ | ✓ | |
| Scenario 2: DS Weighted Sittingbourne | Y | Y | | | ✓ | ✓ | |
| Scenario 3: DS Weighted Faversham | Y | Y | | | ✓ | ✓ | |
| Scenario 4: DS New Settlement approach | Y | Y | Y | Y | ✓ | ✓ | ✓ |

4 Transport Interventions

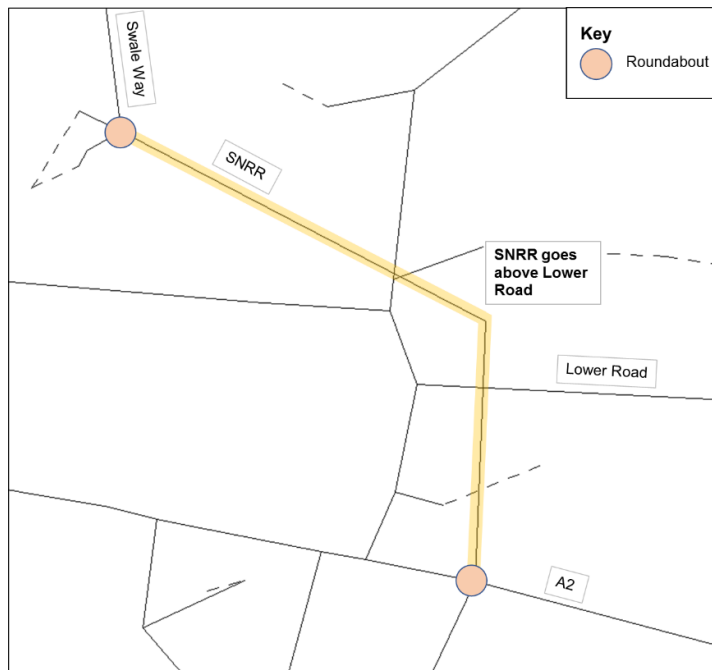
4.1 Introduction

The proposed Transport interventions have been coded into the network based on information provided by KCC. In absence of detailed drawings for some interventions it was necessary to make some assumptions with regards to the layout, geometry and the number of lanes. Prior to coding of the network, these assumptions were discussed and agreed with KCC and SBC.

4.2 SNRR (Sittingbourne Northern Relief Road)

The SNRR is the new relief road from southerly roundabout for Swale Way to the A2 East of Bapchild, which runs above Lower Road. The screenshot from SATURN is shown in Figure 4-1 SNRR coding in SATURN below.

Figure 4-1 SNRR coding in SATURN

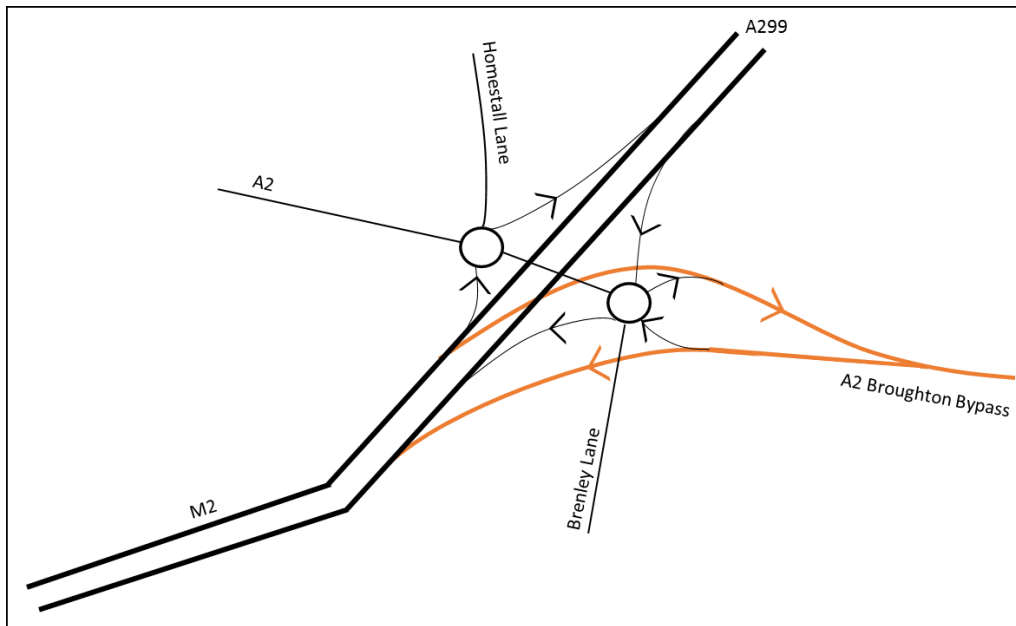


4.3 M2 J7

Figure 4-2 below shows a schematic drawing of the M2 J7, which has a three-tiered structure:

1. M2-A299 (bold and black);
2. M2-A2 Broughton Bypass (bold and orange); and
3. Double roundabout joined by single carriageway in both directions with on and off slips to the A2 and M2 (black).

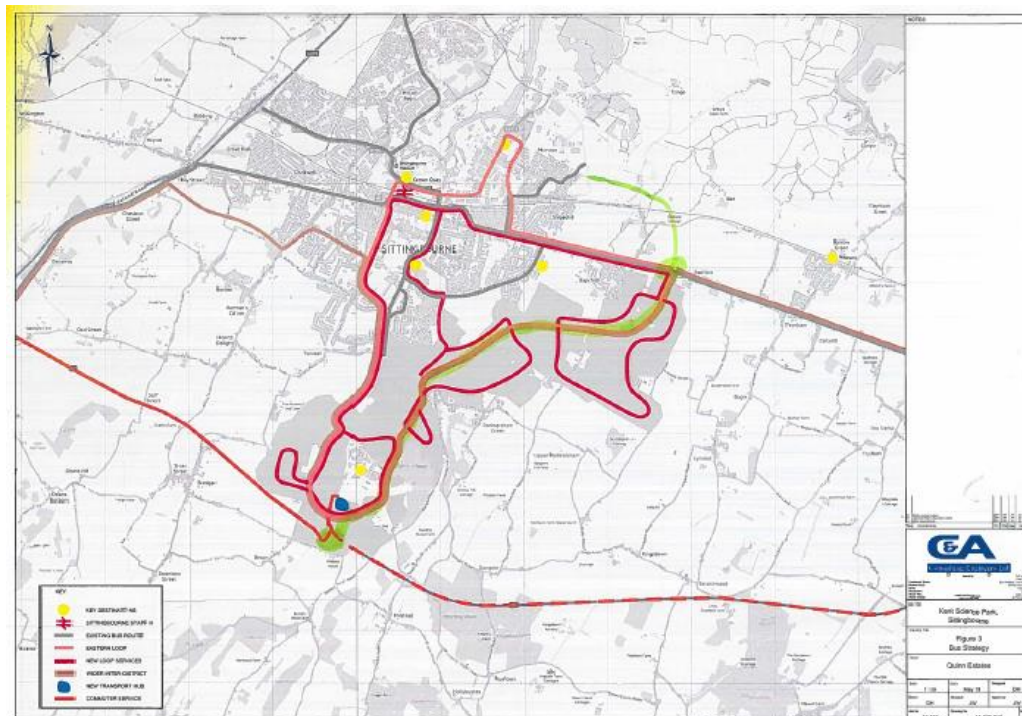
Figure 4-2 Schematic layout for the M2 J7



4.4 SSRR (Sittingbourne Southern Relief Road)

The SSRR represents a new relief road from the A2 at Bapchild to the proposed M2 J5a and is shown in Figure 4-3 below (highlighted in light green).

Figure 4-3 Schematic drawing of the proposed SSRR



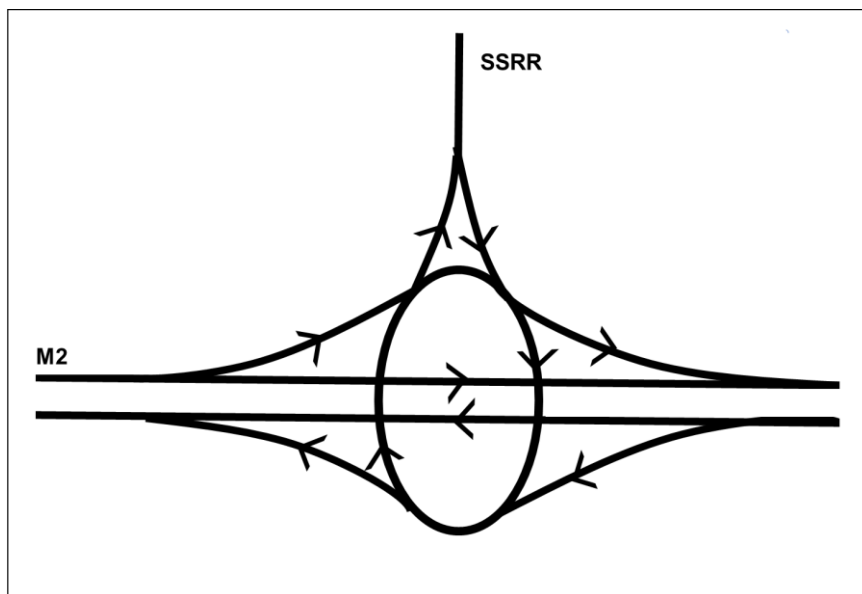
4.5 Bus Priority

It has been agreed with KCC that bus priority measures will not be implemented at this stage of modelling.

4.6 M2 J5a

Figure 4-4 below shows the schematic drawing of the M2 J5a. M2 J5a is a grade separated junction with on and off-slips for both directions of the M2 and joins to the SSRR to the north.

Figure 4-4 Schematic drawing for M2 J5a



5 Local Plan Scenarios- Developments Allocation

5.1 Introduction

The Uncertainty Log for the Bearing Fruits development as outlined in Section 2 provides the basis for Scenarios 1-4. The list of all developments for housing and employment sites are included in **Appendix A**. In the Reference Case, the additional developments were added proportionally to the development sites. However, in the Local Plan scenarios, the additional sites have been replaced with the known locations as provided by KCC/SBC. This can be found in the sections below.

5.2 Scenario 1

Scenario 1 includes all Bearing Fruits developments and transport schemes with additional housing and employment as shown in Table 5-1 and Table 5-2 below, to provide an overall 70:30 Sittingbourne and Sheppey: Faversham split for the whole model period 2017-2037.

Table 5-1 Scenario 1 additional housing

| Ref | Description | Area | Additional Houses 2022- 2027 | Additional Houses 2022- 2037 |
|-----|---|-----------------|---------------------------------|---------------------------------|
| 1 | Duchy Fav | Faversham | 550 | 1940 |
| 2 | Duchy Fav | Faversham | 0 | 430 |
| 3 | East Lady Dane, Fav, SHLAA 18/091 | Faversham | 175 | 1100 |
| 4 | Boughton SHLAA 18/210 & 150 | Faversham | 50 | 50 |
| 5 | Dunkirk SHLAA 18/155 & 162 | Faversham | 160 | 160 |
| 6 | Waterham, Fav | Faversham | 0 | 0 |
| 7 | Sittg A2 North | Sittingbourne | 0 | 0 |
| 8 | Sittg A2 North QE North | Sittingbourne | 0 | 250 |
| 9 | Sittg A2 North QE North | Sittingbourne | 0 | 300 |
| 10 | Sittg A2 North QE North | Sittingbourne | 80 | 300 |
| 11 | West Frogna Lane | Sittingbourne | 0 | 0 |
| 12 | West Frogna La Teynham SHLAA 18/183 | Sittingbourne | 25 | 295 |
| 13 | South A2 Teynham SHLAA 18/055 | Sittingbourne | 0 | 320 |
| 14 | Bobbing, Crabtree | Sittingbourne | 160 | 2000 |
| 15 | Bobbing | Sittingbourne | 0 | 50 |
| 16 | Coleshall Iwade south west SHLAA 18/105 | Sittingbourne | 75 | 650 |
| 17 | Wallend Farm Sheppey | Isle of Sheppey | 0 | 0 |
| 18 | Scocles Farm, East Scocles Rd, Sheppey SHLAA 18/038 | Isle of Sheppey | 50 | 610 |
| 19 | Leysdown, Sheppey | Isle of Sheppey | 0 | 100 |
| 20 | Eastchurch, Sheppey, SHLAA 18/063 | Isle of Sheppey | 40 | 100 |

| | | | | |
|--------------------------|-----------------------------------|---------------|-------------|-------------|
| 21 | Pond Farm, Newington SHLAA 18/229 | Sittingbourne | 90 | 340 |
| 22 | Bredgar, SHLAA 18/084 | Sittingbourne | 110 | 250 |
| Total plan period | | | 1565 | 9245 |

Table 5-2 Scenario 1 additional employment

| Ref | Area | Additional Employment (sqm)* | |
|-----|---------------------------------------|------------------------------|-----------|
| | | 2022-2027 | 2022-2037 |
| 1 | Duchy Fav | 200 | 300 |
| 2 | Duchy Fav | 0 | 2500 |
| 3 | Waterham, Fav | 24000 | 24000 |
| 4 | Sittg A2 North (Eurolink, Tonge Road) | 49000 | 49000 |
| 5 | West Frogna Lane | 28000 | 42000 |
| 6 | Bobbing (Crabtree) | 3500 | 10500 |
| 7 | Wallend Farm Sheppey | 35000 | 95700 |

*It has been agreed that all employments sites will be B1:B2:B8 33%:33%:34% except Wallend Farm B1:B8 10%:90%

5.3 Scenario 2

The additional housing and employment sites for Scenario 2 are the same as in Scenario 1. The transport schemes included in Scenario 2 are the Sittingbourne Northern Relief Road (SNRR) and the M2 J7 improvements.

5.4 Scenario 3

Scenario 3 includes all Bearing Fruit developments and transport schemes, with the additional housing and employment as shown in Table 5-3 and Table 5-4 below. Scenario 3 also includes the SNRR and the M2 J7 improvements.

Table 5-3 Scenario 3 additional housing

| Ref | Description | Area | Additional Houses 2022- 2027 | Additional Houses 2022- 2037 |
|-----|----------------------------------|---------------|------------------------------|------------------------------|
| 1 | Duchy Fav | Faversham | 550 | 1940 |
| 2 | Duchy Fav | Faversham | 0 | 430 |
| 3 | Fav South, Gladmans | Faversham | 0 | 1410 |
| 4 | Fav South, Gladmans | Faversham | 0 | 850 |
| 5 | Fav South, Gladmans | Faversham | 0 | 0 |
| 6 | East Lady Dane Farm SHLAA 18/091 | Faversham | 175 | 1100 |
| 7 | Waterham, Fav | Faversham | 0 | 0 |
| 8 | Sittg A2 North | Sittingbourne | 0 | 0 |
| 9 | Sittg A2 North | Sittingbourne | 0 | 250 |
| 10 | Sittg A2 North | Sittingbourne | 0 | 300 |
| 11 | Sittg A2 North | Sittingbourne | 80 | 300 |

| Ref | Description | Area | Additional Houses 2022- 2027 | Additional Houses 2022- 2037 |
|--------------------------|---|-----------------|------------------------------|------------------------------|
| 12 | West Frognal La Teynham SHLAA 18/183 | Sittingbourne | 25 | 295 |
| 13 | South A2 Teynham SHLAA 18/055 | Sittingbourne | 0 | 320 |
| 14 | Coleshall Iwade south west SHLAA 18/105 | Sittingbourne | 75 | 650 |
| 15 | Pond Farm, Newington SHLAA 18/229 | Sittingbourne | 90 | 340 |
| 16 | Bredgar, SHLAA 18/084 | Sittingbourne | 110 | 250 |
| 17 | Wallend Farm Sheppey | Isle of Sheppey | 0 | 0 |
| 18 | Leysdown, Sheppey | Isle of Sheppey | 0 | 100 |
| 29 | Eastchurch, Sheppey, SHLAA 18/063 | Isle of Sheppey | 40 | 100 |
| 20 | Scocles Farm, East Scocles Rd, Sheppey SHLAA 18/038 | Isle of Sheppey | 50 | 610 |
| Total Plan Period | | | 1195 | 9245 |

Table 5-4 Scenario 3 additional employment

| | Area | Additional Employment (sqm) | |
|---|---------------------------------------|-----------------------------|-----------|
| | | 2022-2027 | 2022-2037 |
| 1 | Duchy Fav | 200 | 300 |
| 2 | Duchy Fav | 0 | 2500 |
| 3 | Fav South | 0 | 40500 |
| 4 | Waterham, Fav | 24000 | 24000 |
| 5 | Sittg A2 North (Eurolink, Tonge Road) | 49000 | 49000 |
| 6 | Sittg A2 North (West of Teynham) | 28000 | 42000 |
| 7 | Wallend Farm Sheppey | 35000 | 65700 |

*It has been agreed that all employment sites will be B1:B2:B8 33%:33%:34% except Wallend Farm B1:B8 10%:90%

5.5 Scenario 4

Scenario 4 includes all Bearing Fruit Local Plan developments and transport schemes, with the additional housing and employment as shown in Table 5-5 and Table 5-6 below. Scenario 4 also includes the SNRR, the Sittingbourne Southern Relief Road (SSRR), M2 J5a, and the M2 J7 improvements.

In Scenario 4, additional development allocations post 2022 were assumed to be entirely within new settlements at South East Sittingbourne and South East Faversham. Because of the long build out time and scale of development associated with South East Sittingbourne in particular, the model has been run on to 2042 to better assess the potential impact of this development.

Table 5-5 Scenario 4 additional housing

| Ref | Description | Area | Additional Houses 2022- 2027 | Additional Houses 2022- 2037 | Additional Houses 2022- 2042 |
|--------------------------|--------------------------|---------------|------------------------------|------------------------------|------------------------------|
| 1 | Duchy Fav | Faversham | 550 | 1940 | 2000 |
| 2 | Duchy Fav | Faversham | 0 | 430 | 500 |
| 3 | Sittg A2 North | Sittingbourne | 0 | 0 | 0 |
| 4 | Sittg A2 North, QE North | Sittingbourne | 0 | 250 | 250 |
| 5 | Sittg A2 North | Sittingbourne | 0 | 300 | 300 |
| 6 | Sittg A2 North, QE North | Sittingbourne | 80 | 300 | 300 |
| 7 | Sittg A2 South, QE South | Sittingbourne | 0 | 200 | 200 |
| 8 | Sittg A2 South, QE South | Sittingbourne | 300 | 1550 | 1550 |
| 9 | Sittg A2 South, QE South | Sittingbourne | 0 | 1000 | 2700 |
| 10 | Sittg A2 South, QE South | Sittingbourne | 0 | 0 | 200 |
| 11 | Sittg A2 South, QE South | Sittingbourne | 0 | 600 | 600 |
| 12 | Sittg A2 South, QE South | Sittingbourne | 0 | 400 | 400 |
| 13 | Sittg A2 South, QE South | Sittingbourne | 450 | 2275 | 2990 |
| Total Plan Period | | | 1380 | 9245 | 11990 |

Table 5-6 Scenario 4 additional employment

| | Area | Additional Employment (sqm) | | |
|---|---------------------------------------|-----------------------------|-----------|-----------|
| | | 2022-2027 | 2022-2037 | 2022-2042 |
| 1 | Duchy Fav | 200 | 300 | 500 |
| 2 | Duchy Fav | 0 | 2500 | 2500 |
| 3 | Sittg A2 North (Eurolink, Tonge Road) | 49000 | 49000 | 49000 |
| 4 | Sittg A2 North (West of Teynham) | 28000 | 42000 | 42000 |
| 5 | Sittg A2 South (QE South) | 20000 | 80000 | 80000 |
| 6 | Sittg A2 South (QE South) | 40000 | 50200 | 50200 |

*It has been agreed that all employments sites will be B1:B2:B8 33%:33%:34%

6 Forecast Demand

6.1 Overview

This chapter summarises the approach adopted to produce each of the forecast demands for the Local Plan forecast year of 2027 and 2037 (and 2042 for Scenario 4). It describes how the predicted generations/ attractions from/to the developments have been included into the future traffic models.

The data used to undertake the forecast demand for each scenario is as follows:

- Uncertainty log information for Reference Case as agreed with Kent County Council;
- TRICs housing trip rates for car provided by KCC, using NTEM v7.2 user class splits for Swale; and
- Trip rates derived from TRICs for LGVs and HGVs.

For the forecasting matrices, future car growth was calculated by spatially allocating development trips from the uncertainty log using trip rates provided by KCC for each area within Swale, and splits by user class derived from TEMPRO version 7.2. LGV and HGV trip rates were derived from TRICs and LGV/HGV growth factors derived from the Department for Transport (DfT) National Transport Model (NTM) database.

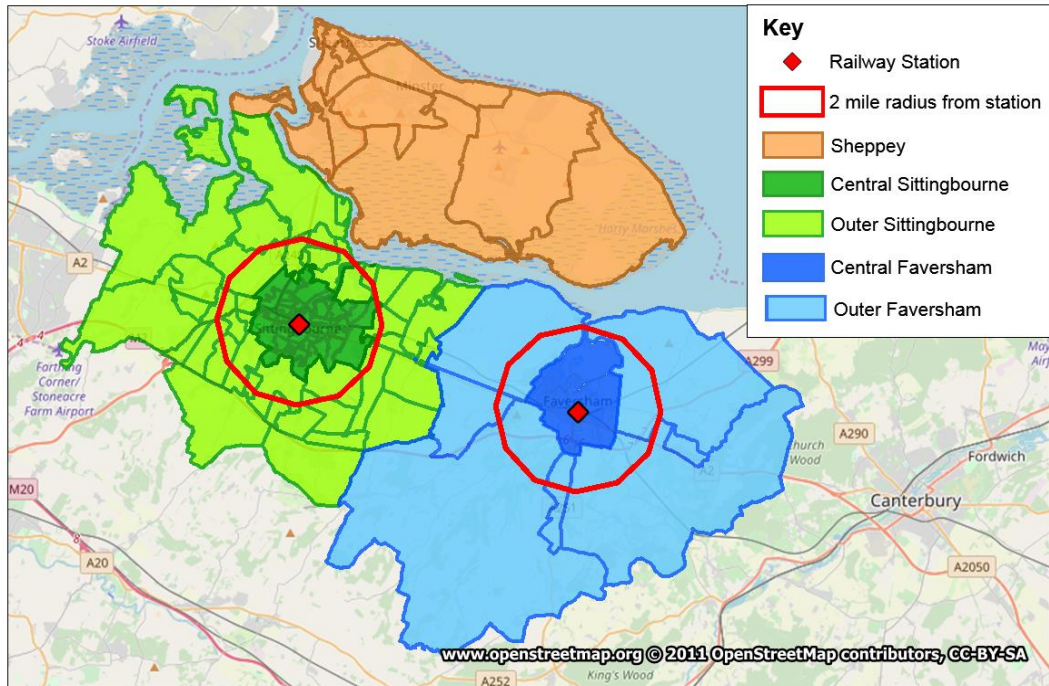
6.2 Trip generation and distribution for modelled developments

Car trips ends were generated from the identified development schemes based on TRICs housing trip rates provided by KCC (based on Transport Assessments from recent actual developments), with purpose split derived from NTEM v7.2 for Swale, and job trip rates for car derived from NTEM v7.2. The procedures allow, for each of the areas identified, the manual introduction of a number of households, jobs and the calculation of the trip generation. The housing car trip rates by area are shown in Table 6-1 below, and the split by purpose for housing trip rates and the job trip rates by TEMPRO zone are shown in **Appendix B**. Figure 6-1 shows the areas for the used trip rates

Table 6-1 TRICs trip rates by classified area

| Area | | AM | | | IP | | | PM | | |
|---------------|---------|-------|-------|--------------|-------|-------|--------------|-------|-------|--------------|
| | | O | D | 2 way | O | D | 2 way | O | D | 2 way |
| Sheppey | All | 0.495 | 0.057 | 0.552 | 0.140 | 0.142 | 0.282 | 0.131 | 0.361 | 0.492 |
| Sittingbourne | Central | 0.399 | 0.046 | 0.445 | 0.112 | 0.115 | 0.227 | 0.107 | 0.293 | 0.400 |
| Sittingbourne | Outer | 0.470 | 0.054 | 0.524 | 0.150 | 0.153 | 0.303 | 0.153 | 0.419 | 0.572 |
| Faversham | Central | 0.379 | 0.044 | 0.423 | 0.121 | 0.124 | 0.245 | 0.120 | 0.328 | 0.448 |
| Faversham | Outer | 0.522 | 0.060 | 0.582 | 0.167 | 0.170 | 0.337 | 0.169 | 0.465 | 0.634 |

Figure 6-1 Model zones by classified area



Peak hour housing trip rates were calculated for the following:

- Home Based Work (HBW);
- Home Based Employment (HBEB); and
- Home Based Other (HBO).

Peak hour job trip rates were calculated for the following:

- Home-based Work (HBW);
- Home-based Employment (HBEB);
- Home-based Other (HBO);
- Non Home-based Employment (NHBE); and
- Non Home-based Other (NHBO).

For the employment developments listed in the uncertainty log, the amount of floor space available was provided as shown in **Appendix A**. Conversion of the floor space to jobs was required, using the employment density in Table 6-2 below. Job numbers were used to calculate LGV and HGV trips using the trip rates in **Appendix B**. The methodology applied was based on the guidance outlined in the home and community's agency employment density guide (2015).

Table 6-2 Employment density by land use class

| Land Use Class | Details | Sqm per job |
|----------------|-----------------------------------|-------------|
| A1 | Retail | 20.00 |
| A1 | Retail warehouse | 90.00 |
| A2 | Finance and professional services | 16.00 |
| A3 | Restaurants and cafes | 20.00 |

| Land Use Class | Details | Sqm per job |
|----------------|----------------------------------|-------------|
| A4 | Drinking establishments | 20.00 |
| A5 | Hot food takeaway | 20.00 |
| B1a | Offices | 13.00 |
| B1b | R&D space | 50.00 |
| B1 c | Light industrial | 47.00 |
| B1 mixed | B1 mixed | 60.00 |
| B2 | Industrial and manufacturing | 60.00 |
| B8 | Storage and distribution | 86.00 |
| Mixed B1-B8 | Mixed B1-B8 | 40.00 |
| C1 | Hotels | 55.74 |
| C2 | Residential institutions | 20.00 |
| D1 | Non-residential institutions | 50.00 |
| D2 | Fitness/cinema/visitor/amusement | 108.75 |
| SG | Sui Generis | 950.00 |

Peak period trip rates for LGV and HGV were obtained from the TRICs database and converted into peak hour trip rates using the factors found in Table 6-3 below.

Table 6-3 Factors applied to convert from peak period to peak hour

| Time | | TRICs trip rate | Weighted trip weight | Factor applied |
|------|-------------|-----------------|----------------------|----------------|
| AM | 7:00-8:00 | 0.235 | - | |
| | 8:00-9:00 | 0.327 | 0.472 | 2.119 |
| | 9:00-10:00 | 0.131 | - | |
| IP | 11:00-12:00 | - | - | 6 |
| PM | 16:00-17:00 | 0.2 | - | |
| | 17:00-18:00 | 0.271 | 0.375 | 2.668 |
| | 18:00-19:00 | 0.252 | - | |

The following parameters were applied to surveys:

- England, Scotland, Wales excluding London and Ireland;
- 01/01/2000-31/12/2017 as of 24/04/2018;
- Saturday and Sunday excluded; and
- Relevant land use class.

The full breakdown of the LGV and HGVs trip rates for each land use class are shown in **Appendix B**.

The new trips generated from the proposed developments were calculated by applying the NTEM v7.2 and the TRICs trip rates to the proposed developments. Target trip ends were then obtained by adding the existing trip ends to the new trips from the proposed developments. The future matrices were then created through the SATURN furness process to output a set of development scenarios for both 2027 and 2037. The furness process attempts to match the target trip ends for each zone for both Origins and Destinations and as such it goes through a number of iterations until the total trip ends are balanced. It is therefore possible that when there are more new housings (mainly

origins in AM peak) than new jobs then the destination trips are factored up accordingly in the process until the trip ends are balanced.

The distribution of the future developments was based on the existing distribution for the associated zone. In rare occurrences where the base zone was empty, a nearby zone with a similar characteristic was chosen to distribute the development trips. The same approach has been adopted when development trips for a time period were missing in the base year matrices, and in that case a distribution taken from a nearby similar zone was used. This tended to occur where new development was allocated in the post 2022 period where there was very little other development in the zone (such as for the new settlements). The results were also 'sense checked' for how the model was allocating trips from such development to the network and adjusted if necessary.

6.3 Matrix Building

6.3.1 Growth Factors

Car background growth factors across the entire modelled area were derived from TEMPRO and split by purpose and time period. Table 6-4 to Table 6-6 below shows a summary of the NTEM v7.2 growth factors for AM and PM for 2027, 2037 and 2042 respectively.

Table 6-4 NTEM v7.2 growth factors for 2017-2027 AM and PM peak hours

| Area | 2017-2027 AM | | | | | | 2017-2037 PM | | | | | |
|-----------------------|--------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|
| | EMP | | Work | | Other | | EMP | | Work | | Other | |
| | O | D | O | D | O | D | O | D | O | D | O | D |
| GB | 1.082 | 1.082 | 1.079 | 1.079 | 1.118 | 1.118 | 1.080 | 1.080 | 1.071 | 1.071 | 1.107 | 1.107 |
| Bromley | 1.050 | 1.084 | 1.043 | 1.079 | 1.118 | 1.147 | 1.081 | 1.054 | 1.074 | 1.036 | 1.123 | 1.107 |
| Rother | 1.079 | 1.090 | 1.069 | 1.085 | 1.125 | 1.127 | 1.087 | 1.079 | 1.077 | 1.063 | 1.116 | 1.114 |
| Ashford | 1.109 | 1.083 | 1.111 | 1.078 | 1.184 | 1.156 | 1.084 | 1.104 | 1.073 | 1.105 | 1.147 | 1.164 |
| Canterbury | 1.103 | 1.081 | 1.106 | 1.077 | 1.161 | 1.143 | 1.082 | 1.098 | 1.072 | 1.100 | 1.137 | 1.147 |
| Dartford | 1.100 | 1.083 | 1.105 | 1.079 | 1.170 | 1.161 | 1.086 | 1.096 | 1.076 | 1.098 | 1.147 | 1.146 |
| Dover | 1.079 | 1.081 | 1.072 | 1.076 | 1.161 | 1.145 | 1.079 | 1.077 | 1.068 | 1.066 | 1.131 | 1.142 |
| Gravesham | 1.072 | 1.080 | 1.070 | 1.075 | 1.140 | 1.145 | 1.080 | 1.073 | 1.070 | 1.063 | 1.131 | 1.126 |
| Maidstone | 1.081 | 1.081 | 1.076 | 1.076 | 1.153 | 1.145 | 1.079 | 1.079 | 1.069 | 1.069 | 1.128 | 1.137 |
| Medway | 1.072 | 1.080 | 1.065 | 1.075 | 1.137 | 1.137 | 1.078 | 1.070 | 1.067 | 1.057 | 1.119 | 1.122 |
| Sevenoaks | 1.017 | 1.077 | 0.996 | 1.071 | 1.082 | 1.120 | 1.070 | 1.021 | 1.060 | 0.988 | 1.087 | 1.077 |
| Shepway | 1.050 | 1.080 | 1.034 | 1.074 | 1.123 | 1.133 | 1.075 | 1.050 | 1.065 | 1.028 | 1.110 | 1.111 |
| Swale | 1.056 | 1.078 | 1.045 | 1.073 | 1.127 | 1.133 | 1.075 | 1.057 | 1.064 | 1.038 | 1.112 | 1.115 |
| Thanet | 1.046 | 1.079 | 1.032 | 1.073 | 1.110 | 1.128 | 1.074 | 1.046 | 1.062 | 1.022 | 1.104 | 1.100 |
| Tonbridge and Malling | 1.067 | 1.080 | 1.059 | 1.075 | 1.138 | 1.139 | 1.077 | 1.067 | 1.068 | 1.054 | 1.121 | 1.126 |
| Tunbridge Wells | 1.046 | 1.078 | 1.031 | 1.073 | 1.116 | 1.133 | 1.074 | 1.046 | 1.064 | 1.023 | 1.108 | 1.105 |

Table 6-5 NTEM v7.2 growth factors for 2017-2037 for AM and PM peak hours

| Area | 2017-2037 AM | | | | | | 2017-2037 PM | | | | | |
|-----------------------|--------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|
| | EMP | | Work | | Other | | EMP | | Work | | Other | |
| | O | D | O | D | O | D | O | D | O | D | O | D |
| GB | 1.143 | 1.143 | 1.137 | 1.137 | 1.121 | 1.121 | 1.139 | 1.139 | 1.124 | 1.124 | 1.192 | 1.192 |
| Bromley | 1.086 | 1.142 | 1.076 | 1.131 | 1.137 | 1.136 | 1.137 | 1.093 | 1.124 | 1.065 | 1.226 | 1.201 |
| Rother | 1.143 | 1.152 | 1.131 | 1.143 | 1.132 | 1.132 | 1.149 | 1.142 | 1.130 | 1.121 | 1.212 | 1.214 |
| Ashford | 1.187 | 1.142 | 1.188 | 1.132 | 1.180 | 1.179 | 1.144 | 1.179 | 1.123 | 1.179 | 1.273 | 1.305 |
| Canterbury | 1.159 | 1.139 | 1.156 | 1.129 | 1.164 | 1.163 | 1.139 | 1.152 | 1.120 | 1.145 | 1.246 | 1.260 |
| Dartford | 1.176 | 1.142 | 1.188 | 1.132 | 1.166 | 1.167 | 1.148 | 1.170 | 1.129 | 1.176 | 1.273 | 1.274 |
| Dover | 1.132 | 1.139 | 1.118 | 1.127 | 1.165 | 1.163 | 1.136 | 1.130 | 1.115 | 1.108 | 1.240 | 1.258 |
| Gravesham | 1.122 | 1.137 | 1.117 | 1.127 | 1.148 | 1.148 | 1.139 | 1.125 | 1.121 | 1.106 | 1.243 | 1.234 |
| Maidstone | 1.131 | 1.139 | 1.119 | 1.128 | 1.159 | 1.158 | 1.135 | 1.129 | 1.116 | 1.109 | 1.233 | 1.247 |
| Medway | 1.115 | 1.137 | 1.099 | 1.126 | 1.148 | 1.145 | 1.132 | 1.113 | 1.113 | 1.088 | 1.215 | 1.220 |
| Sevenoaks | 1.030 | 1.133 | 0.995 | 1.121 | 1.109 | 1.107 | 1.120 | 1.037 | 1.104 | 0.984 | 1.164 | 1.147 |
| Shepway | 1.060 | 1.135 | 1.028 | 1.123 | 1.139 | 1.136 | 1.124 | 1.064 | 1.107 | 1.017 | 1.190 | 1.187 |
| Swale | 1.086 | 1.135 | 1.064 | 1.124 | 1.140 | 1.139 | 1.127 | 1.089 | 1.109 | 1.055 | 1.204 | 1.209 |
| Thanet | 1.069 | 1.135 | 1.042 | 1.123 | 1.130 | 1.127 | 1.126 | 1.073 | 1.106 | 1.027 | 1.191 | 1.184 |
| Tonbridge and Malling | 1.115 | 1.137 | 1.101 | 1.126 | 1.149 | 1.148 | 1.133 | 1.116 | 1.115 | 1.091 | 1.226 | 1.236 |
| Tunbridge Wells | 1.073 | 1.135 | 1.046 | 1.123 | 1.136 | 1.133 | 1.127 | 1.076 | 1.110 | 1.033 | 1.200 | 1.195 |

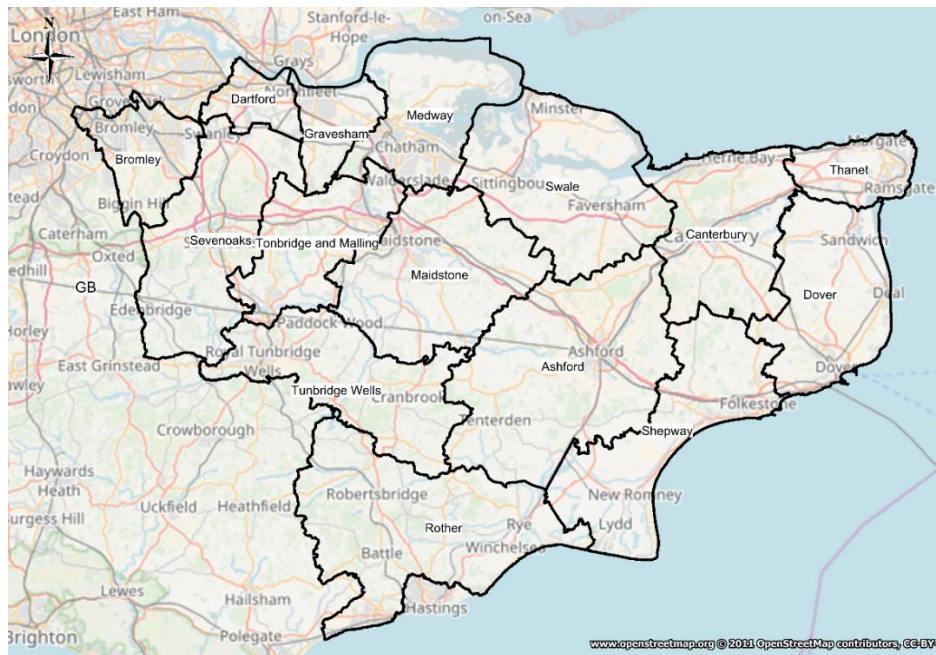
Table 6-6 NTEM v7.2 growth factors for 2017-2042 for AM and PM peak hours

| Area | 2017-2042 AM | | | | | | 2017-2042 PM | | | | | |
|-----------------------|--------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|
| | EMP | | Work | | Other | | EMP | | Work | | Other | |
| | O | D | O | D | O | D | O | D | O | D | O | D |
| GB | 1.179 | 1.179 | 1.171 | 1.171 | 1.257 | 1.257 | 1.174 | 1.174 | 1.155 | 1.155 | 1.233 | 1.233 |
| Bromley | 1.110 | 1.177 | 1.098 | 1.163 | 1.262 | 1.317 | 1.171 | 1.118 | 1.154 | 1.084 | 1.266 | 1.236 |
| Rother | 1.184 | 1.190 | 1.170 | 1.179 | 1.277 | 1.273 | 1.185 | 1.180 | 1.162 | 1.157 | 1.253 | 1.254 |
| Ashford | 1.235 | 1.179 | 1.236 | 1.165 | 1.408 | 1.345 | 1.181 | 1.225 | 1.154 | 1.224 | 1.325 | 1.362 |
| Canterbury | 1.202 | 1.175 | 1.199 | 1.162 | 1.343 | 1.314 | 1.175 | 1.193 | 1.150 | 1.184 | 1.294 | 1.310 |
| Dartford | 1.218 | 1.179 | 1.229 | 1.166 | 1.380 | 1.351 | 1.185 | 1.211 | 1.161 | 1.215 | 1.322 | 1.324 |
| Dover | 1.179 | 1.175 | 1.163 | 1.161 | 1.351 | 1.319 | 1.172 | 1.173 | 1.145 | 1.149 | 1.290 | 1.311 |
| Gravesham | 1.153 | 1.173 | 1.146 | 1.159 | 1.308 | 1.318 | 1.174 | 1.156 | 1.151 | 1.132 | 1.287 | 1.276 |
| Maidstone | 1.165 | 1.175 | 1.150 | 1.160 | 1.324 | 1.316 | 1.170 | 1.161 | 1.145 | 1.136 | 1.275 | 1.290 |
| Medway | 1.146 | 1.173 | 1.126 | 1.158 | 1.291 | 1.301 | 1.166 | 1.143 | 1.141 | 1.111 | 1.255 | 1.259 |
| Sevenoaks | 1.048 | 1.168 | 1.006 | 1.153 | 1.183 | 1.266 | 1.152 | 1.055 | 1.132 | 0.992 | 1.194 | 1.173 |
| Shepway | 1.086 | 1.170 | 1.048 | 1.155 | 1.241 | 1.282 | 1.157 | 1.090 | 1.135 | 1.034 | 1.225 | 1.220 |
| Swale | 1.115 | 1.170 | 1.088 | 1.156 | 1.273 | 1.292 | 1.161 | 1.117 | 1.138 | 1.076 | 1.242 | 1.245 |
| Thanet | 1.098 | 1.171 | 1.067 | 1.155 | 1.240 | 1.283 | 1.159 | 1.101 | 1.134 | 1.048 | 1.228 | 1.218 |
| Tonbridge and Malling | 1.149 | 1.173 | 1.132 | 1.159 | 1.309 | 1.308 | 1.167 | 1.149 | 1.144 | 1.119 | 1.268 | 1.279 |

| Area | 2017-2042 AM | | | | | | 2017-2042 PM | | | | | |
|-----------------|--------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|
| | EMP | | Work | | Other | | EMP | | Work | | Other | |
| | O | D | O | D | O | D | O | D | O | D | O | D |
| Tunbridge Wells | 1.100 | 1.170 | 1.067 | 1.155 | 1.253 | 1.294 | 1.160 | 1.101 | 1.138 | 1.051 | 1.238 | 1.229 |

A tiered approach to growth factors has been applied. Growth factors have been adopted at a district level for Swale, and for the rest of the south east. External zones have TEMPRO factors for GB applied to them. This structure is displayed in Figure 6-2.

Figure 6-2 TEMPRO regions



Growth factors calculated from the Department for Transport (DfT) National Transport Model (NTM) database was used to forecast growth in LGV and HGV for 2027, 2037 and 2042. These can be found in Table 6-7 below.

Table 6-7 LGV and HGV NTM factors

| Vehicle Class | Forecast | Growth | Factor |
|---------------|-----------|--------|--------|
| LGV | 2017-2027 | 26.0% | 1.26 |
| | 2017-2037 | 52.0% | 1.52 |
| | 2017-2042 | 65.0% | 1.65 |
| HGV | 2017-2027 | 7.3% | 1.073 |
| | 2017-2037 | 14.6% | 1.146 |
| | 2017-2042 | 18.3% | 1.183 |

6.3.2 Unconstrained growth scenarios within Swale

Within the TEMPRO Swale district trip end forecasts have been calculated based on the development assumptions in the uncertainty log and the trip rates defined in section 5.2. To be able to assess the impact of the local plan with different quantum and distribution of

housing in Swale, it has been agreed with KCC and SBC that the growth within Swale should be unconstrained. This means that growth within Swale is determined by the new trips generated from the new developments in the uncertainty log, without having to constrain the growth to TEMPRO as required by WebTAG. Growth for areas outside of Swale have been based on TEMPRO growth factors.

The same methodology as the reference case matrices has been adopted for the Local Plan Option test scenarios. This consists of the following steps:

- Derive the forecast trip ends by
 - Applying the NTEMNTM growth factors across the wider model and external areas to the base year model trip ends;
 - Apply development and NTEM adjusted growth factors for Swale district to the base year model trip ends;
 - Furness matrices to the growthed target trip ends.

6.3.3 Matrix Totals

Figure 6-3 Swale Highways Model Zones

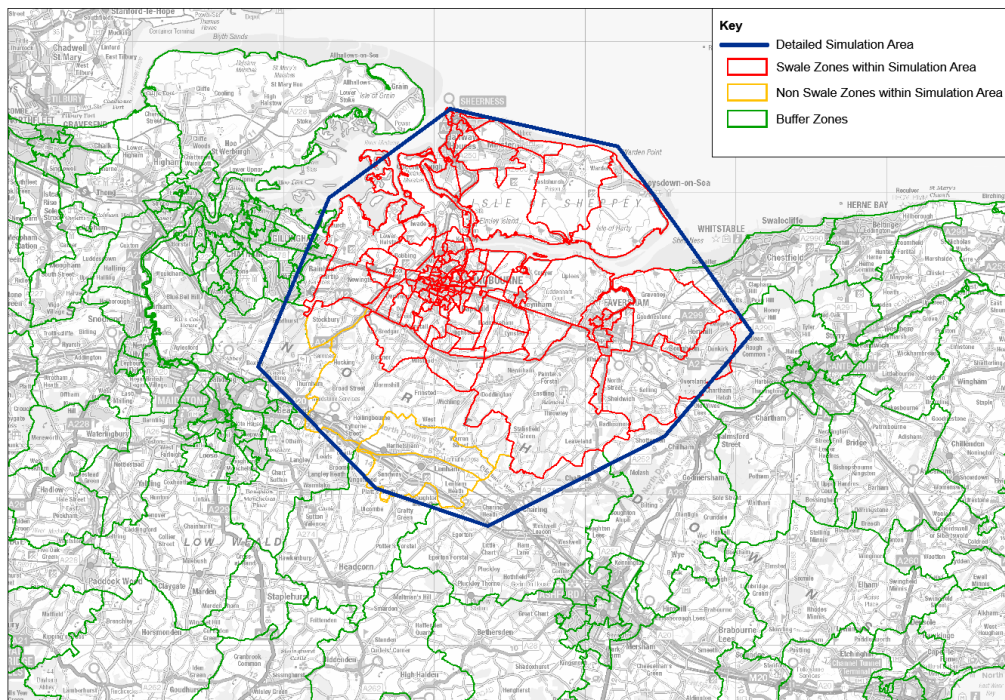


Figure 6-3 shows the Swale and non-Swale model zones in the detailed simulation area, and the buffer zones.

Table 6-8 to Table 6-13 show the growth in matrix totals against the base year matrix for each scenario (AM and PM).

Table 6-8 Scenario 1/2 AM matrix totals

| | Trips | | | | | | | | | |
|--|--------|--------|--------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 1/2 | | | | | | | |
| | 2017AM | | 2027AM | | 2037AM | | 2027-2017AM | | 2037-2017AM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale zones (red) | 18638 | 17666 | 24720 | 20560 | 30105 | 22721 | 33% | 16% | 62% | 29% |
| Other Zones (Kent and Medway, not Swale- yellow and green) | 185664 | 186636 | 207310 | 211470 | 224979 | 232363 | 12% | 13% | 21% | 25% |
| Total | 204302 | 204302 | 232030 | 232030 | 255084 | 255084 | 14% | 14% | 25% | 25% |

Table 6-9 Scenario 3 AM matrix totals

| | Trips | | | | | | | | | |
|--|--------|--------|------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 3 | | | | | | | |
| | 2017AM | | 2027AM | | 2037AM | | 2027-2017AM | | 2037-2017AM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale zones (red) | 18638 | 17666 | 24524 | 20504 | 30215 | 22743 | 32% | 16% | 62% | 29% |
| Other Zones (Kent and Medway, not Swale- yellow and green) | 185664 | 186636 | 207309 | 211329 | 224979 | 232451 | 12% | 13% | 21% | 25% |
| Total | 204302 | 204302 | 231833 | 231833 | 255194 | 255194 | 13% | 13% | 25% | 25% |

Table 6-10 AM Scenario 4 AM matrix totals

| | Trips | | | | | | | | | |
|---|--------|--------|------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 4 | | | | | | | |
| | 2017AM | | 2027AM | | 2037AM | | 2027-2017AM | | 2037-2017AM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale (red) | 18638 | 17666 | 24696 | 20586 | 30310 | 22848 | 33% | 17% | 63% | 29% |
| Kent and Medway, not Swale (yellow and green) | 185664 | 186636 | 207277 | 211387 | 224900 | 232363 | 12% | 13% | 21% | 25% |
| Total | 204302 | 204302 | 231973 | 231973 | 255210 | 255210 | 14% | 14% | 25% | 25% |

Table 6-11 Scenario 1/2 PM matrix totals

| | Trips | | | | | | | | | |
|---|--------|--------|--------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 1/2 | | | | | | | |
| | 2017PM | | 2027PM | | 2037PM | | 2027-2017PM | | 2037-2017PM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale (red) | 18545 | 19341 | 21724 | 24444 | 24422 | 29113 | 17% | 26% | 32% | 51% |
| Kent and Medway, not Swale (yellow and green) | 183648 | 182851 | 206322 | 203602 | 225467 | 220776 | 12% | 11% | 23% | 21% |
| Total | 202193 | 202192 | 228046 | 228046 | 249889 | 249890 | 13% | 13% | 24% | 24% |

Table 6-12 Scenario 3 PM matrix totals

| | Trips | | | | | | | | | |
|---|--------|--------|------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 3 | | | | | | | |
| | 2017PM | | 2027PM | | 2037PM | | 2027-2017PM | | 2037-2017PM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale (red) | 18545 | 19341 | 21646 | 24277 | 24459 | 29196 | 17% | 26% | 32% | 51% |
| Kent and Medway, not Swale (yellow and green) | 183648 | 182851 | 206233 | 203602 | 225513 | 220777 | 12% | 11% | 23% | 21% |
| Total | 202193 | 202192 | 227879 | 227879 | 249972 | 249973 | 13% | 13% | 24% | 24% |

Table 6-13 Scenario 4 PM matrix totals

| | Trips | | | | | | | | | |
|---|--------|--------|------------|--------|--------|--------|-------------|-----|-------------|-----|
| | Base | | Scenario 4 | | | | | | | |
| | 2017PM | | 2027PM | | 2037PM | | 2027-2017PM | | 2037-2017PM | |
| | O | D | O | D | O | D | O | D | O | D |
| Swale (red) | 18545 | 19341 | 21728 | 24423 | 24555 | 29316 | 17% | 26% | 32% | 52% |
| Kent and Medway, not Swale (yellow and green) | 183648 | 182851 | 206270 | 203575 | 225470 | 220709 | 12% | 11% | 23% | 21% |
| Total | 202193 | 202192 | 227998 | 227998 | 250025 | 250025 | 13% | 13% | 24% | 24% |

For the 2027 AM matrices, there is 16-33% growth in Swale and 11-13% growth in other zones. Overall, there is 13-14% growth in matrices in 2027 AM. For the 2027 PM matrices, there is 17-26% growth in Swale and 11-12% growth in other zones. Overall, there is 13% growth in matrices in 2027 PM.

For the 2037 AM matrices, there is 29-63% growth in Swale and 21-25% growth in other zones. Overall, there is 25% growth in matrices in 2037 AM. For the 2037 PM matrices,

there is 32-52% growth in Swale, and 21-23% growth in other zones. Overall, there is 24% growth in matrices in 2037 PM.

For all scenarios, the Bearing Fruit development (allocated and windfall) remain the same. Table 6-14 and

Table 6-15 below show the housing numbers found in Sittingbourne, Faversham and Isle of Sheppey for Bearing Fruit, and additional housing for each Local Plan scenario.

Table 6-14 Housing split by area for 2027 scenarios

| | Bearing Fruit-Allocated | Bearing Fruit-Windfall | 2027 Additional housing | | | | Total | | | | % split | | | |
|------------------------|-------------------------|------------------------|-------------------------|--------------|-------------|-------------|----------------|--------------|--------------|--------------|----------------|--------------|------------|------------|
| | | | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 |
| Sittingbourne | 4708 | 286 | 723 | 430 | 270 | 830 | 5717 | 5424 | 5264 | 5824 | 52% | 49% | 49% | 53% |
| Faversham | 1935 | 118 | 297 | 1045 | 835 | 550 | 2350 | 3098 | 2888 | 2603 | 21% | 28% | 27% | 24% |
| Isle of Sheppey | 2410 | 146 | 370 | 90 | 90 | 0 | 2926 | 2646 | 2646 | 2556 | 27% | 24% | 25% | 23% |
| | 9053 | 550 | 1390 | 1565 | 1195 | 1380 | 10993 | 11168 | 10798 | 10983 | | | | |

Table 6-15 Housing split by area for 2037 scenarios

| | Bearing Fruit-Allocated | Bearing Fruit-Windfall | 2037 Additional housing | | | | Total | | | | % split | | | |
|------------------------|-------------------------|------------------------|-------------------------|--------------|-------------|-------------|----------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|
| | | | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 |
| Sittingbourne | 6175 | 543 | 4841 | 4505 | 2455 | 6875 | 11560 | 11223 | 9173 | 13593 | 55% | 52% | 43% | 63% |
| Faversham | 1958 | 172 | 1535 | 3930 | 5980 | 2370 | 3665 | 6060 | 8110 | 4500 | 17% | 28% | 38% | 21% |
| Isle of Sheppey | 3124 | 275 | 2449 | 810 | 810 | 0 | 5848 | 4209 | 4209 | 3399 | 28% | 20% | 20% | 16% |
| | 11257 | 990 | 8826 | 9245 | 9245 | 9245 | 21073 | 21492 | 21492 | 21492 | 82%:17% | 72%:28% | 62%:38% | 79%:21% |

Sitt/Shep:Fav

The proportions of additional housing on top of the Bearing Fruit development in Sittingbourne, Faversham and Isle of Sheppey can be seen below in Table 6-16 and Table 6-17:

Table 6-16 Additional Housing proportions by area for 2027

| | 2027 Additional Housing | | | |
|------------------------|-------------------------|--------------|------------|------------|
| | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 |
| Sittingbourne | 52% | 27% | 23% | 60% |
| Faversham | 21% | 67% | 70% | 40% |
| Isle of Sheppey | 27% | 6% | 8% | 0% |

Table 6-17 Additional Housing proportions by area for 2037

| | 2037 Additional Housing | | | |
|------------------------|-------------------------|--------------|------------|------------|
| | Reference Case | Scenario 1/2 | Scenario 3 | Scenario 4 |
| Sittingbourne | 55% | 49% | 27% | 74% |
| Faversham | 17% | 43% | 65% | 26% |
| Isle of Sheppey | 28% | 9% | 9% | 0% |

In 2037, the reference case additional housing from 2023-2037 has the same distribution as the Bearing Fruit development. Scenario 1/2 has similar proportions in Sittingbourne

and Faversham, whereas in Scenario 3, there is more additional development in Faversham, and Scenario 4 focusses additional development in Sittingbourne.

7 Forecast Supply

7.1 Introduction

This section details the assumptions applied for the Value of Time (VoT) and Vehicle Operating Cost (VOC) for the development of the forecast networks.

7.2 Generalised cost

Cost changes have been calculated for each forecast year. The highway trip costs are made up of time, distance and charge impacts. The VoT and VOC vary by journey purpose and vary by forecast year to represent changes in fuel costs and income. Changes in fuel costs, vehicle efficiency and values of time have been taken from the WebTAG data book July 2017. These have been used to calculate the forecast year values of time (expressed as pence per minute in SATURN) and operating costs (expressed in pence per kilometre in SATURN). Table 7-1 and Table 7-2 details the highway generalised cost coefficients used for 2027 and 2037 in pence per minute (PPM) and pence per kilometre (PPK).

Table 7-1 Value of time assumptions, pence per minute (PPM, 2010 prices, 2027/2037 values)

| User Class | PPM | | | | | |
|---------------------------|-------|-------|-------|-------|-------|-------|
| | 2027 | | 2037 | | 2042 | |
| | AM | PM | AM | PM | AM | PM |
| Car - Employer's Business | 35.32 | 35.83 | 42.32 | 42.93 | 46.79 | 46.79 |
| Car - Commuting | 23.69 | 23.77 | 28.38 | 28.48 | 31.38 | 31.38 |
| Car - Other | 16.34 | 17.11 | 19.58 | 20.51 | 21.65 | 21.65 |
| LGV | 24.96 | 24.96 | 29.91 | 29.91 | 33.07 | 33.07 |
| HGV | 58.29 | 58.29 | 69.85 | 69.85 | 77.23 | 77.23 |

Table 7-2 Value of vehicle operating cost assumptions, pence per kilometre (PPK, 2010 prices, 2027/2037 values)

| User Class | PPK (same for all time periods) | | |
|---------------------------|---------------------------------|-------|-------|
| | 2027 | 2037 | 2042 |
| Car - Employer's Business | 12.00 | 11.87 | 11.95 |
| Car - Commuting | 5.43 | 5.26 | 5.36 |
| Car - Other | 5.43 | 5.26 | 5.36 |
| LGV | 13.77 | 13.78 | 13.91 |
| HGV | 45.34 | 47.65 | 48.31 |

8 Model Results

8.1 Forecast Network Overall Performance

Table 8-1 to Table 8-4 summarises the overall performance of the network in different time periods and forecast years within the simulation area including the key roads such as A249, A2, M2, M20 etc.:

- Total travel time, PCU hrs: The sum of all time taken for all vehicles to travel across the simulation network for all link and junctions;
- Total travel distance, PCU, kms: The sum of all distance travelled in the simulation network; and
- Simulation network speed, kph: Defined by total simulation distance / total simulation time.

Table 8-1 Network performance for Local Plan Option Test 2027 AM scenarios

| | AM | | | | | |
|---------------------------------|---------|----------------|------------|------------|------------|------------|
| | Base | Reference Case | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
| Simulation network Speed (kph) | 67 | 59 | 58 | 59 | 60 | 62 |
| Total travel time (PCU hrs) | 51350 | 61114 | 61152 | 60874 | 60709 | 60228 |
| Total travel distance (PCU kms) | 3303787 | 3784730 | 3786132 | 3782294 | 3776936 | 3777713 |

Table 8-2 Network performance for Local Plan Option Test 2027 PM scenarios

| | PM | | | | | |
|---------------------------------|---------|----------------|------------|------------|------------|------------|
| | Base | Reference Case | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
| Simulation network Speed (kph) | 67 | 61 | 61 | 62 | 62 | 64 |
| Total travel time (PCU hrs) | 51569 | 60186 | 60166 | 60023 | 59928 | 59607 |
| Total travel distance (PCU kms) | 3286033 | 3725605 | 3726254 | 3723785 | 3720035 | 3721956 |

Table 8-3 Network performance for Local Plan Option Test 2037 AM scenarios

| | AM | | | | | |
|---------------------------------|---------|----------------|------------|------------|------------|------------|
| | Base | Reference Case | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
| Simulation network Speed (kph) | 67 | 46 | 45 | 47 | 48 | 52 |
| Total travel time (PCU hrs) | 51350 | 73125 | 73482 | 72650 | 71937 | 70520 |
| Total travel distance (PCU kms) | 3303787 | 4214230 | 4214705 | 4202655 | 4202961 | 4190879 |

Table 8-4 Network performance for Local Plan Option Test 2037 PM scenarios

| | PM | | | | | |
|---------------------------------|---------|----------------|------------|------------|------------|------------|
| | Base | Reference Case | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
| Simulation network Speed (kph) | 67 | 52 | 53 | 53 | 54 | 58 |
| Total travel time (PCU hrs) | 51569 | 69708 | 69736 | 69447 | 69116 | 67919 |
| Total travel distance (PCU kms) | 3286033 | 4123867 | 4133841 | 4127643 | 4117129 | 4105807 |

Figure 8-1 to Figure 8-3 show the 2037 average simulation network speeds, total travel time, and total travel distances graphically. Other network performance measure results can be found in **Appendix C**.

General analysis of this information indicates the following:

- In 2037, average speed is quite similar between the scenarios, with Scenario 4 having the highest average speed within the simulation area (52kph in the AM and 58kph in the PM).
- In 2037, total travel distance and total travel time is lowest in Scenario 4, and highest in Scenario 1.
- In the 2037 PM local plan scenarios, there are higher average speeds, and lower total travel time and distance compared to the 2037 AM local plan scenarios.

Figure 8-1 Average speed in 2037 Scenarios (kph)

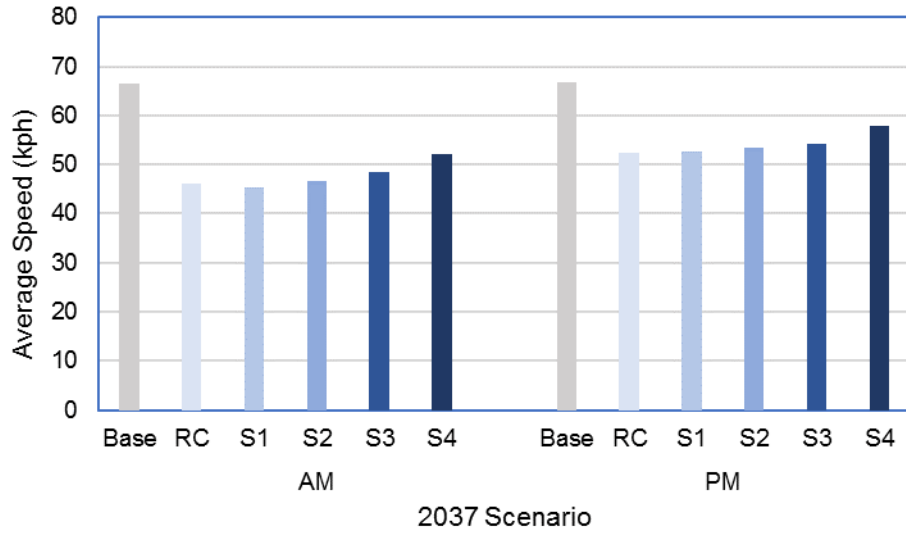


Figure 8-2 Total travel time in 2037 Scenarios (PCU hrs)

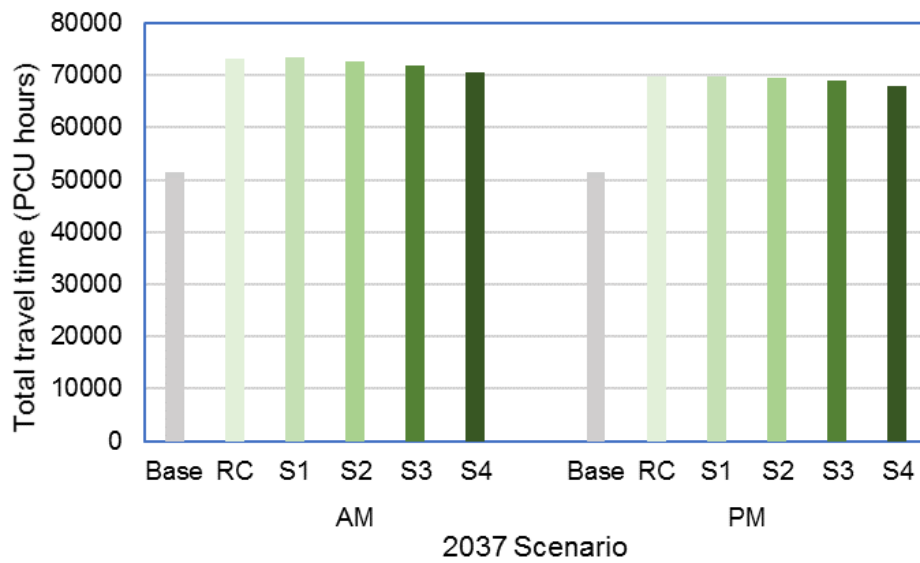
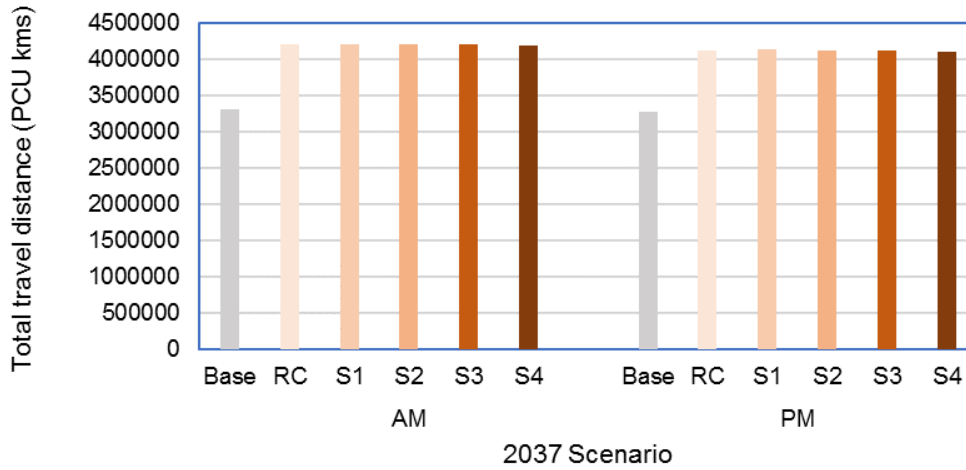


Figure 8-3 Total travel distance in 2037 Scenarios (PCU kms)



8.2 Traffic Flows

Figure 8-4 to Figure 8-23 below show the difference flow (PCU) plots between each Local Plan scenarios and Scenario 1 (DM weighted Sittingbourne), as well as Scenario 3 and 4 compared to Scenario 2 (DS weighted Sittingbourne). Green bars indicate an increase in modelled flow, and blue bars indicate a decrease. The figures show the whole Swale (wider area) as well as more local area around Sittingbourne, Faversham and Isle of Sheppey.

Scenario 2 (DS weighted Sittingbourne) vs Scenario 1 (DM weighted Sittingbourne)

Figure 8-4 to Figure 8-7 show an overall change in modelled flow between Scenario 2 and Scenario 1 in the 2037 AM and PM peak hours.

Figure 8-4 Model flow difference between 2037 Scenario 2 and Scenario 1 -AM

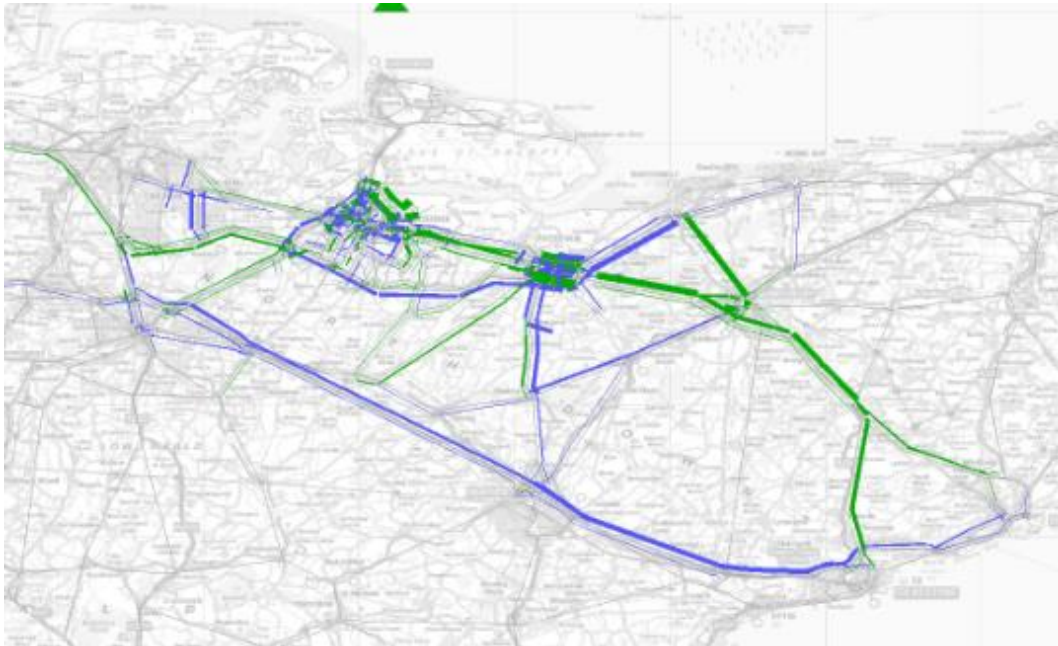
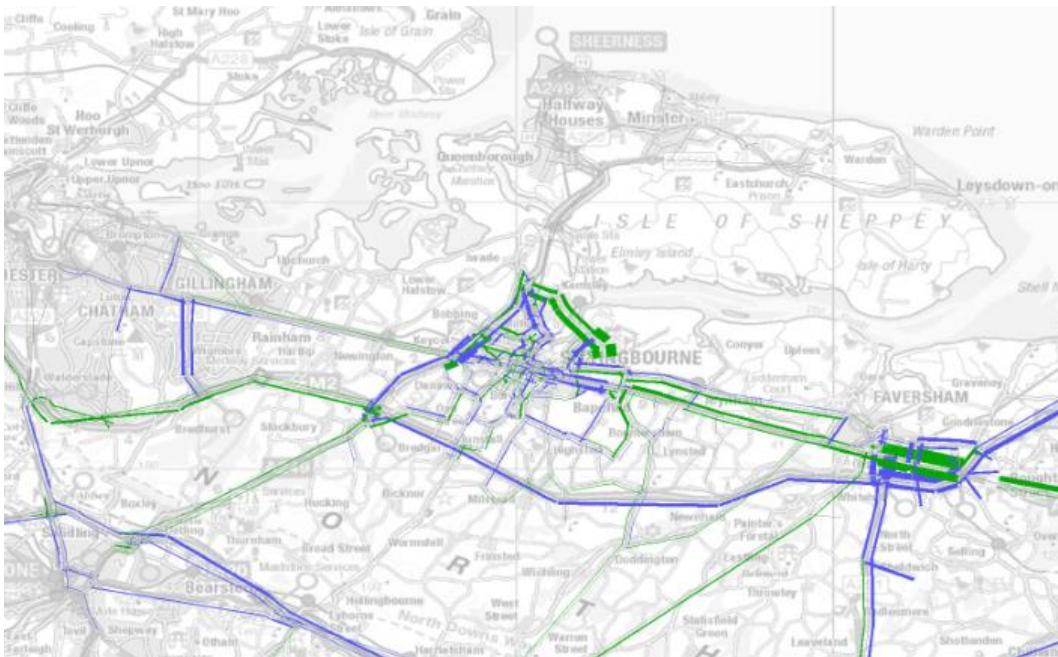


Figure 8-5 Model flow difference between 2037 Scenario 2 and Scenario 1 -Sittingbourne AM

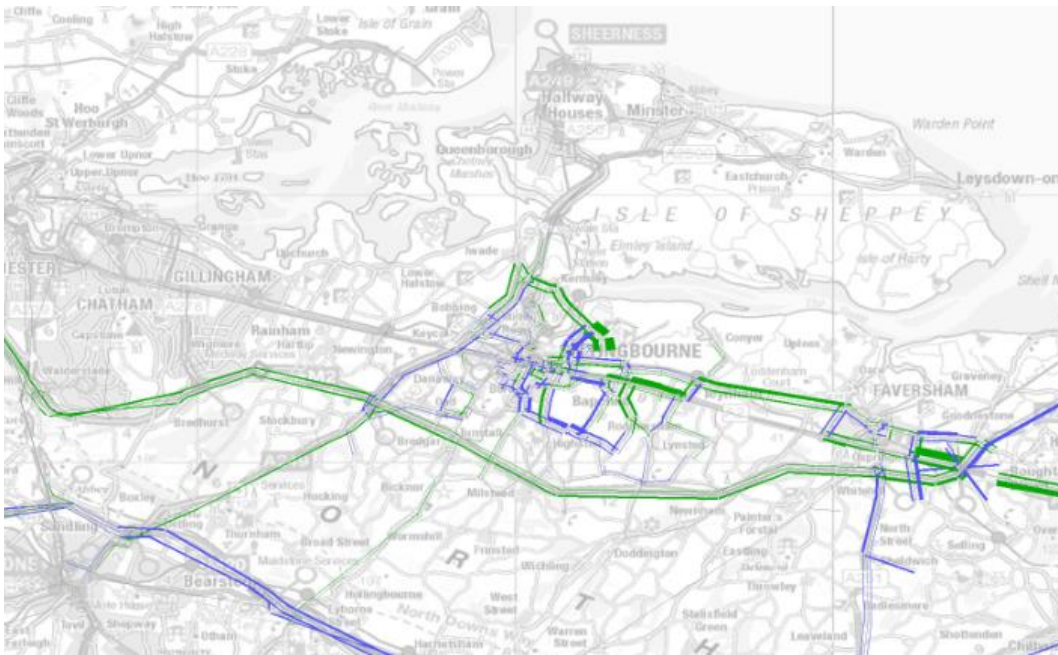


Scenarios 1 and 2 have the same additional housing allocations. The only difference between the two scenarios is the network- Scenario 2 has the M2 J7 new design and the SNRR. In 2037 AM, there is an increase in traffic flow along Swale Way, joining to the SNRR, A2 to the M2J7. There is reassignment of traffic from M20 EB to A2 EB and from the M2 WB to the A2 WB. In 2037 AM Scenario 1, A2 EB to the M2 J7 is overloaded. With the new design in Scenario 2, volume/capacity of this junction improves.

Figure 8-6 Model flow difference between 2037 Scenario 2 and Scenario 1 - PM



Figure 8-7 Model flow difference between 2037 Scenario 2 and Scenario 1 -Sittingbourne PM



2037 PM flow difference plots show a similar pattern to the 2037 AM flow difference plots. There is more traffic along Swale Way to the SNRR, A2 and M2J7 in both directions, and wider reassignment of traffic from the M20 to the A2 and M2, with more reassignment in 2037PM from the M20 to M2 compared to the 2037AM.

Scenario 3 (DS weighted Faversham) vs Scenario 1 (DM weighted Sittingbourne)

Figure 8-8 to Figure 8-11 show the overall change in modelled flow between Scenario 3 (DS weighted Faversham) and Scenario 1 (DM weighted Sittingbourne) in the 2037 AM and PM peak hours.

Figure 8-8 Model flow difference between 2037 Scenario 3 and Scenario 1 -AM

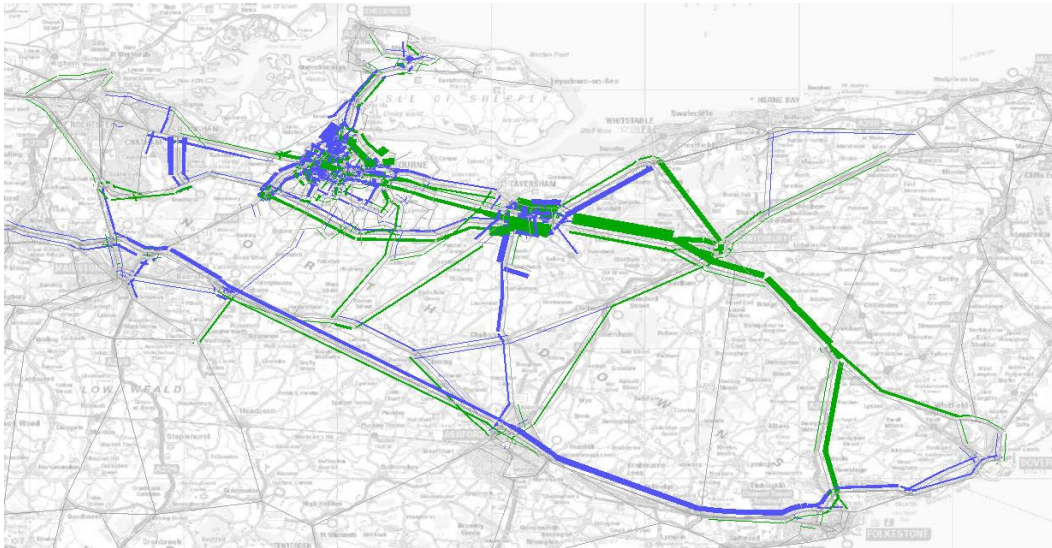
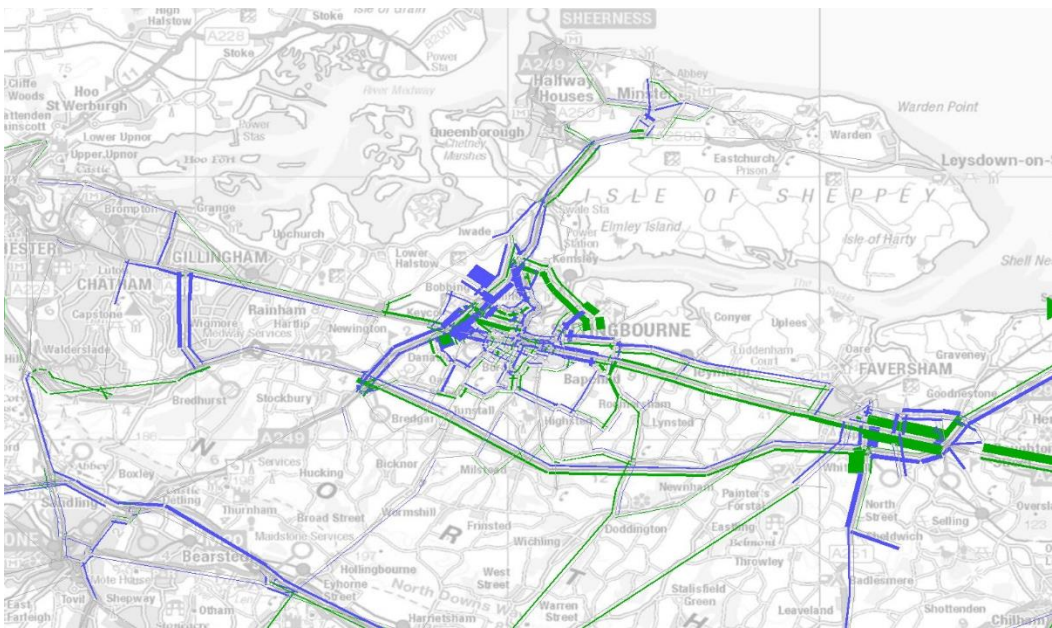


Figure 8-9 Model flow difference between 2037 Scenario 3 and Scenario 1 – Sittingbourne AM



Scenario 1 and 3 have the same number of additional housing developments in 2037, however in Scenario 3, locations of development sites are more focussed in Faversham, and less focussed in Sittingbourne. In 2037 AM, there are increases in traffic flow around Faversham in Scenario 3 and decreases around Sittingbourne.

Scenario 3 network includes the addition of the SNRR and the M2 J7. In 2037 AM, there is an increase in flows on the M2 WB, and A2 WB from M2 J7 to the SNRR. There are also decreases in A249 SB south of A249/Grovehurst Road junction, which leads to the SNRR. There is also reassignment of traffic from the M20 EB to the A2 EB.

Figure 8-10 Model flow difference between 2037 Scenario 3 and Scenario 1 -PM

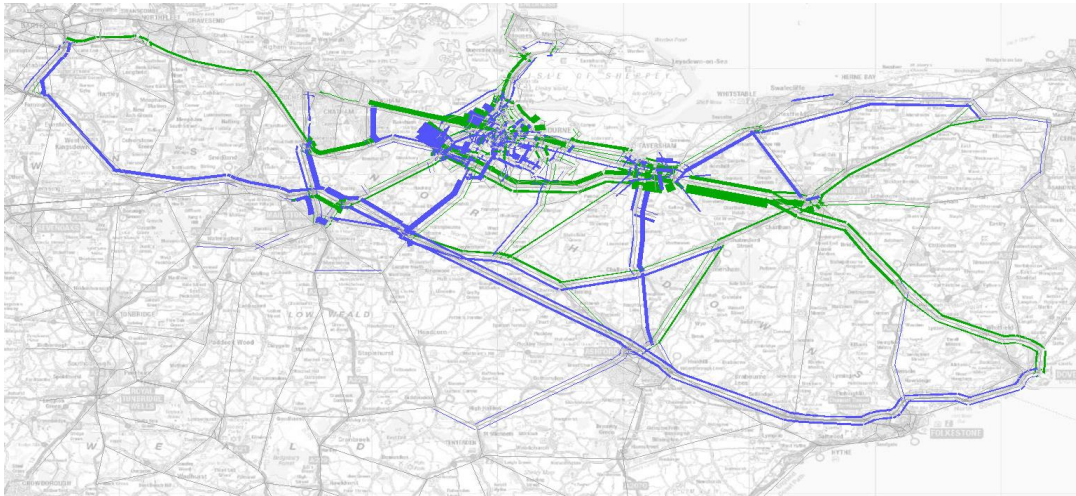


Figure 8-11 Model flow difference between 2037 Scenario 3 and Scenario 1 – Sittingbourne PM



The 2037 PM flow difference plots for Scenario 3 and 1 show a similar pattern as there is an increase in flows around Faversham in Scenario 3. There is reassignment of traffic west of Sittingbourne from the M2 EB to the A2 EB for vehicles travelling north (to Sheppey). There is also wider reassignment of traffic from the M20 in both directions to the M2 which results in an increase in flows along the M2 in both directions.

Scenario 4 (DS New Settlement Approach) vs Scenario 1 (DM weighted Sittingbourne)

Figure 8-12 to Figure 8-15 show the overall change in modelled flow between Scenario 4 and Scenario 1 in the 2037 AM and PM peak hours. In Scenario 4, there are more developments in Sittingbourne, and the network includes SNRR, SSRR M7 and the M2 J5a.

Figure 8-12 Model flow difference between 2037 Scenario 4 and Scenario 1 -AM

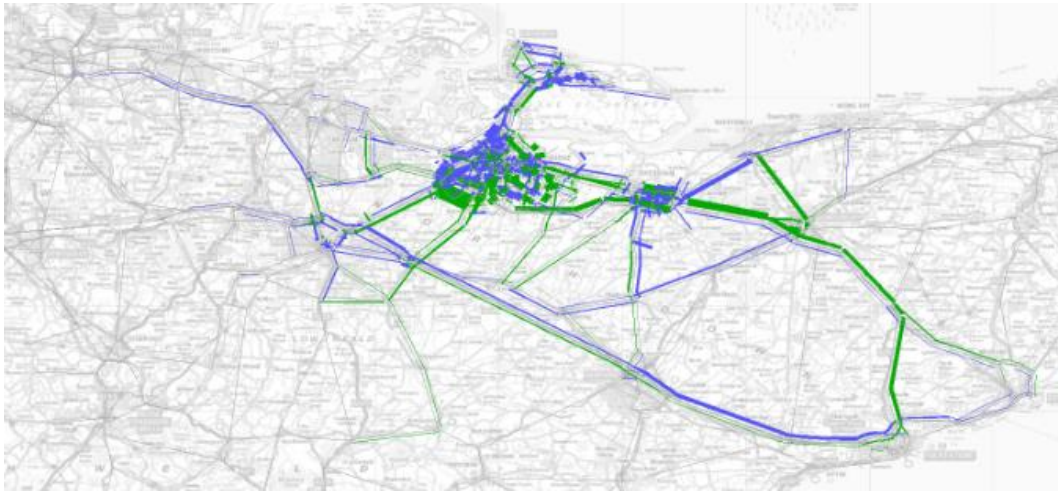


Figure 8-13 Model flow difference between 2037 Scenario 4 and Scenario 1 – Sittingbourne AM



As shown above, there is reassignment of traffic from the M20 to the M2 in the eastbound direction. There is also reassignment of traffic from the A249 onto the SNRR, SSRR to the M2 through M2 J5a in Scenario 4.

Figure 8-14 Model flow difference between 2037 Scenario 4 and Scenario 1 -PM

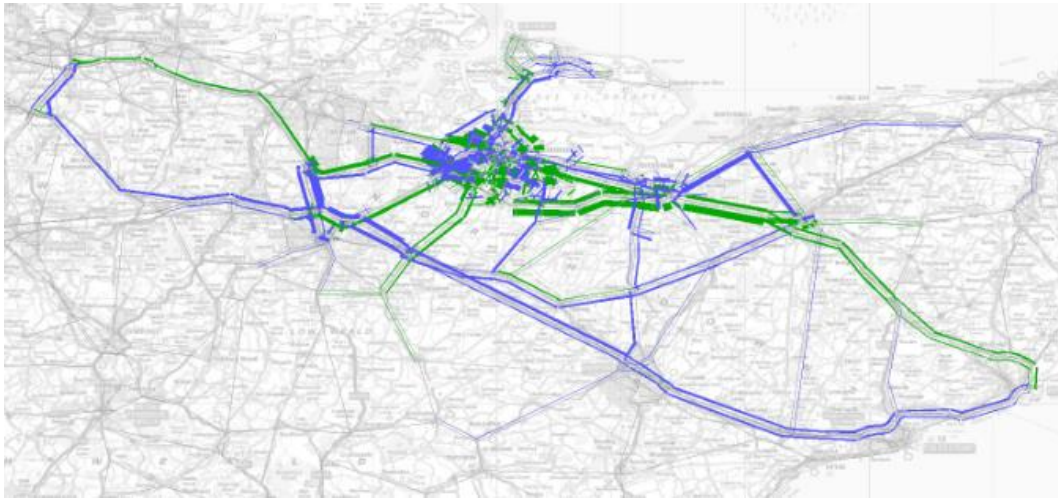


Figure 8-15 Model flow difference between 2037 Scenario 4 and Scenario 1 – Sittingbourne PM



As shown in the flow difference plots above, there is reassignment of traffic from the M20 to the M2 in both directions. There is also reassignment of traffic from the A249 onto the SNRR, SSRR to the M2 through M2 J5a in Scenario 4. There are also increases on the A2 WB.

Scenario 3 (DS weighted Faversham) vs Scenario 2 (DS weighted Sittingbourne)

Figure 8-16 to Figure 8-19 show the overall change in modelled flow between Scenario 3 and Scenario 2 in the 2037 AM and PM peak hours.

Figure 8-16 Model flow difference between 2037 Scenario 3 and Scenario 2 -AM

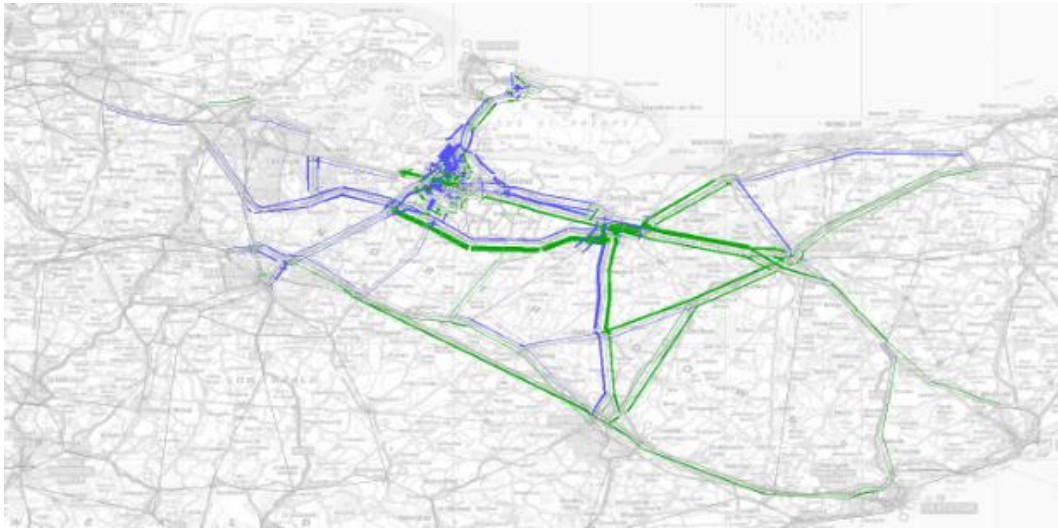


Figure 8-17 Model flow difference between 2037 Scenario 3 and Scenario 2 – Sittingbourne AM



Scenarios 2 and 3 have the same network (new design for the M2 J7 and the SNRR), and the same number of additional housing developments in 2037. However, in Scenario 3, the locations are more focussed in Faversham, and less in Sittingbourne. The flow difference plots for Scenario 3 against 2 in 2037 AM show increases in traffic flow around Faversham and decreases around Sittingbourne. There is also an increase in flows on the M2 WB.

Figure 8-18 Model flow difference between 2037 Scenario 3 and Scenario 2 -PM

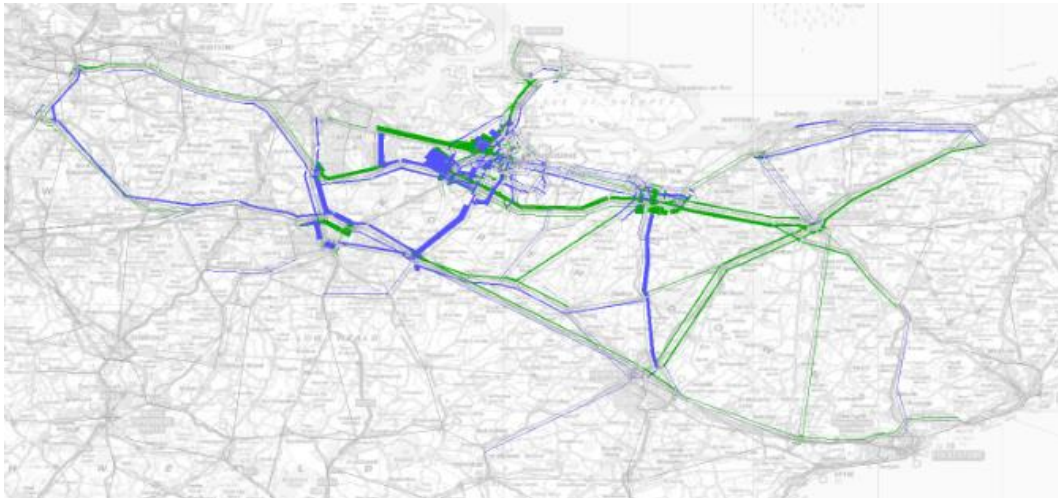


Figure 8-19 Model flow difference between 2037 Scenario 3 and Scenario 2 – Sittingbourne PM



As shown above, flow difference plots show a similar pattern in 2037 PM- there is an increase in flows around Faversham in Scenario 3 compared to Scenario 2. There is reassignment of traffic west of Sittingbourne from the M2 EB to the A2 EB for vehicles travelling north (to Sheppey), and an increase in flows on the M2 EB in Scenario 3.

Scenario 4 (DS New Settlement Approach) vs Scenario 2 (DS weighted Sittingbourne)

Figure 8-8 to Figure 8-23 Figure 8-11 show the overall change in modelled flow between Scenario 4 and Scenario 2 in the 2037 AM and PM peak hours. Scenario 4 includes the addition of the M2 J5a and the SSRR.

Figure 8-20 Model flow difference between 2037 Scenario 4 and Scenario 2 -AM

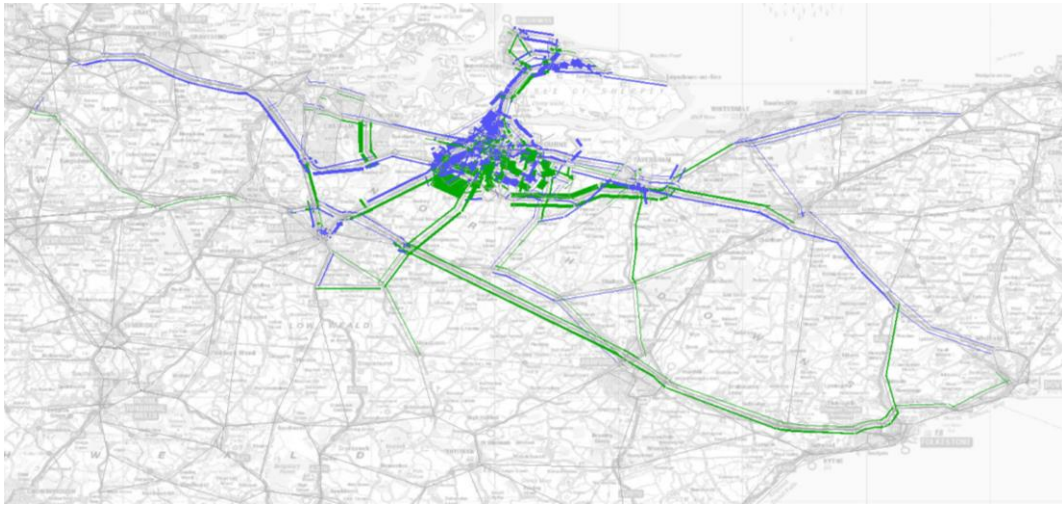


Figure 8-21 Model flow difference between 2037 Scenario 4 and Scenario 2 – Sittingbourne AM



Scenario 4 and 2 have the same number of additional housing in 2037, however, the distribution is different- Scenario 4 focusses additional housing in new settlements in Sittingbourne north and south of the A2. There is a decrease in flows in Isle of Sheppey and along the A249 in both directions in Scenario 4. There are also increases in flow south of the A2 in Sittingbourne, and along the M2 in both directions and wider reassignment to the M20.

Figure 8-22 Model flow difference between 2037 Scenario 4 and Scenario 2 -PM

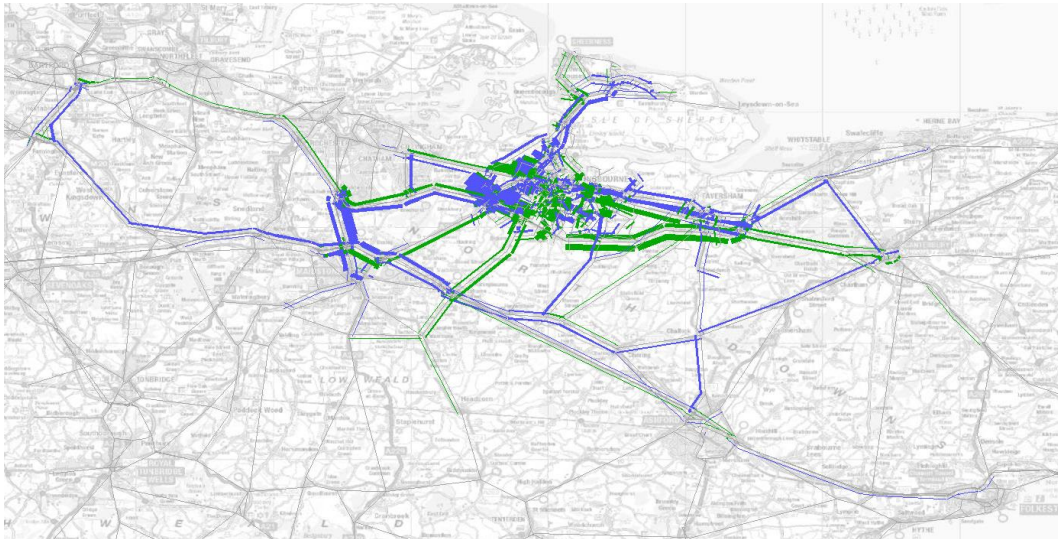
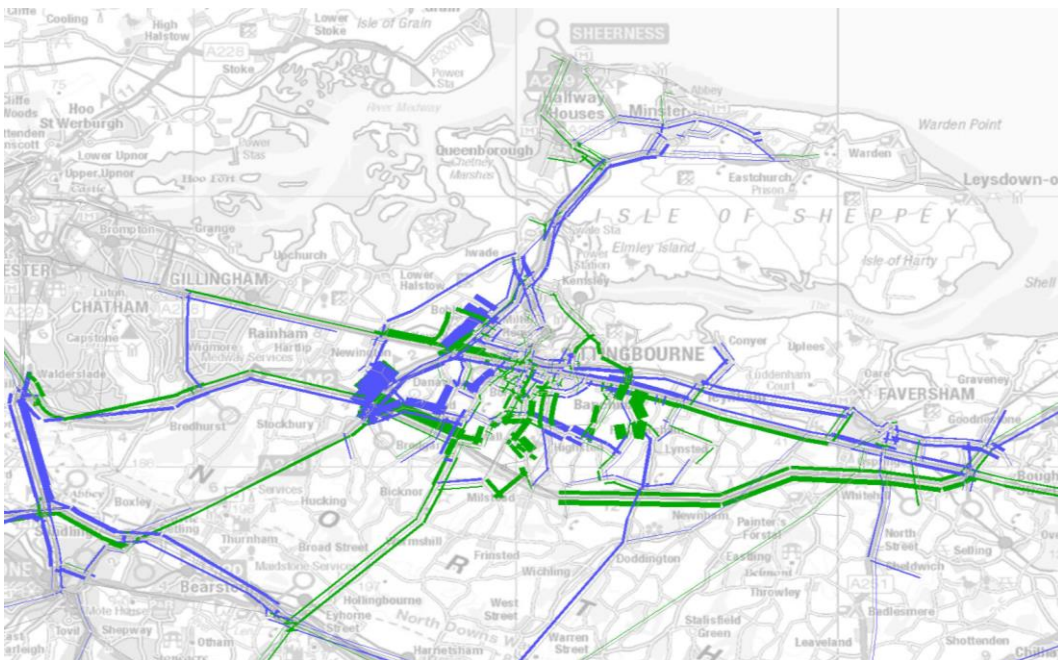


Figure 8-23 Model flow difference between 2037 Scenario 4 and Scenario 2 – Sittingbourne PM



The PM flow difference plots for Scenario 4 and 2 show a similar pattern in Sittingbourne and Isle of Sheppey. There are increases in flow along the M2 in both directions, and along the A2 WB.

In addition, stick diagrams have been created for Sittingbourne, Faversham and Isle of Sheppey as shown in Figure 8-24 to Figure 8-47 to show the link flows (in PCUs) on roads in the key development areas. These include link flows for 2017, 2027 and 2037 for all scenarios plus 2042 for Scenario 4 during both AM and PM peak hours. On majority of the roads, the flows are highest in 2037 (and 2042). In some cases, flows in 2037/2042 are slightly lower than in 2027, due to rerouting of traffic.

Figure 8-24 Flows on key roads in Sittingbourne Scenario 1 AM

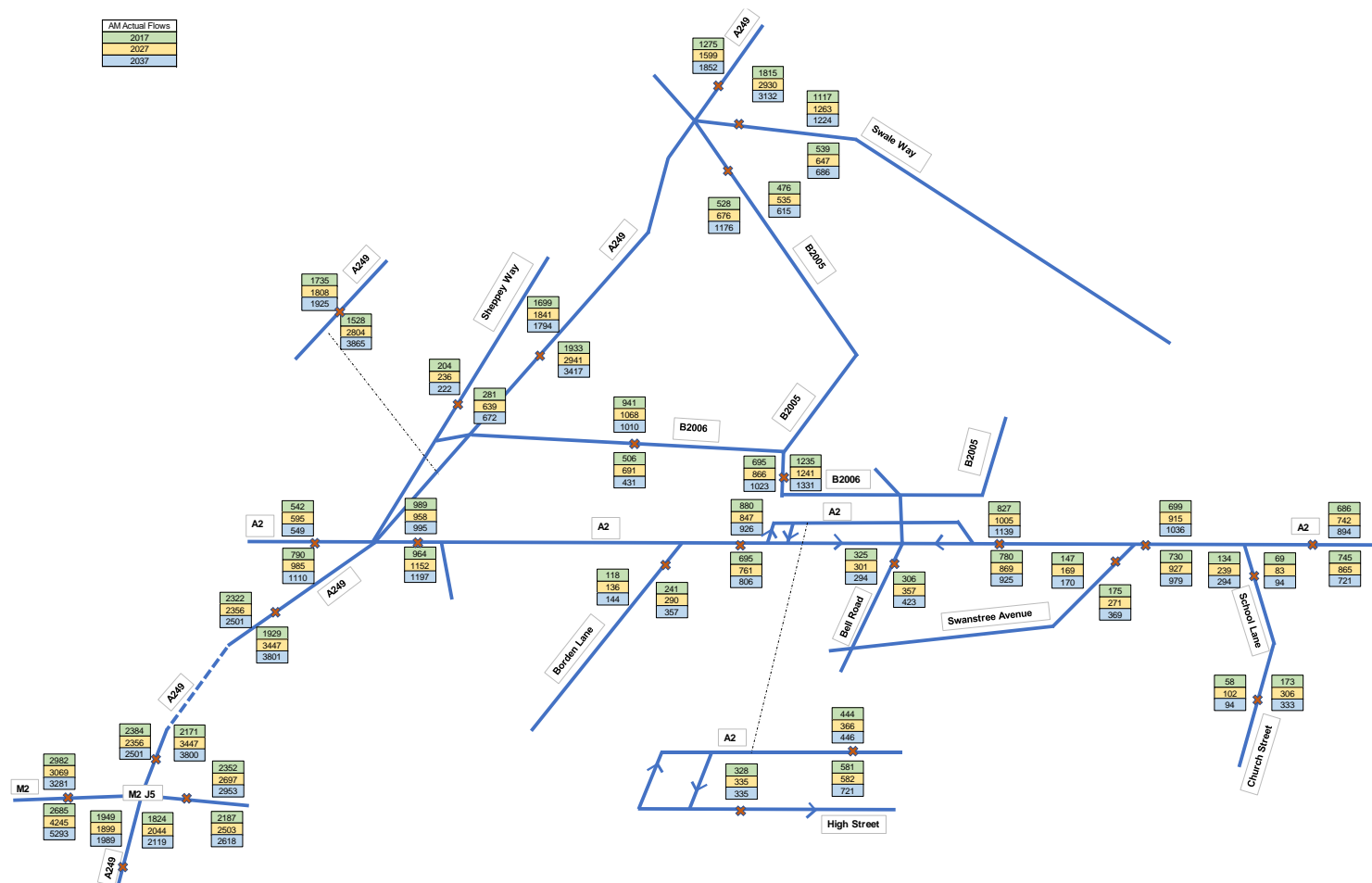


Figure 8-25 Flows on key roads in Faversham Scenario 1 AM

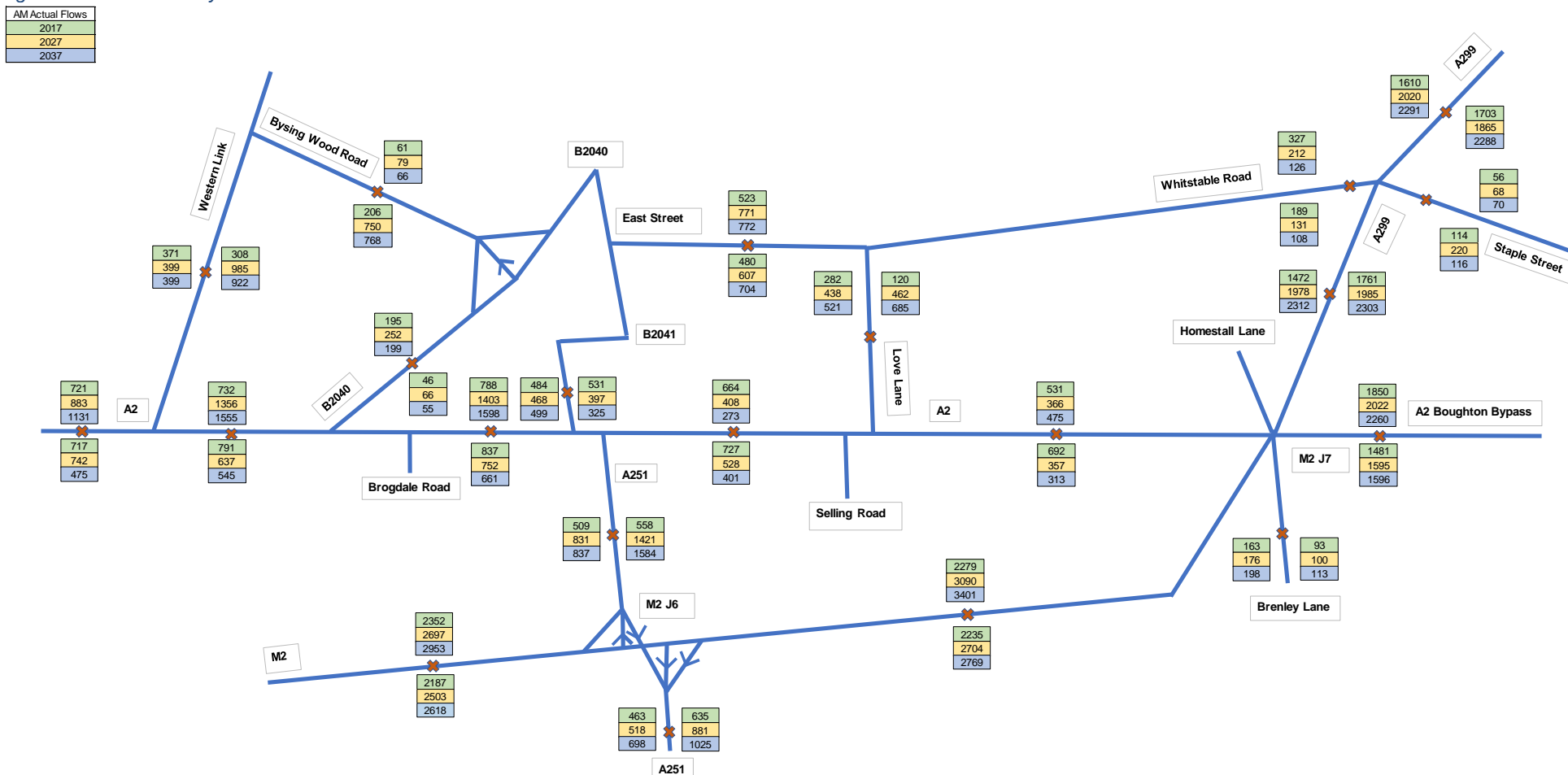


Figure 8-26 Flows on key roads in Isle of Sheppey Scenario 1 AM

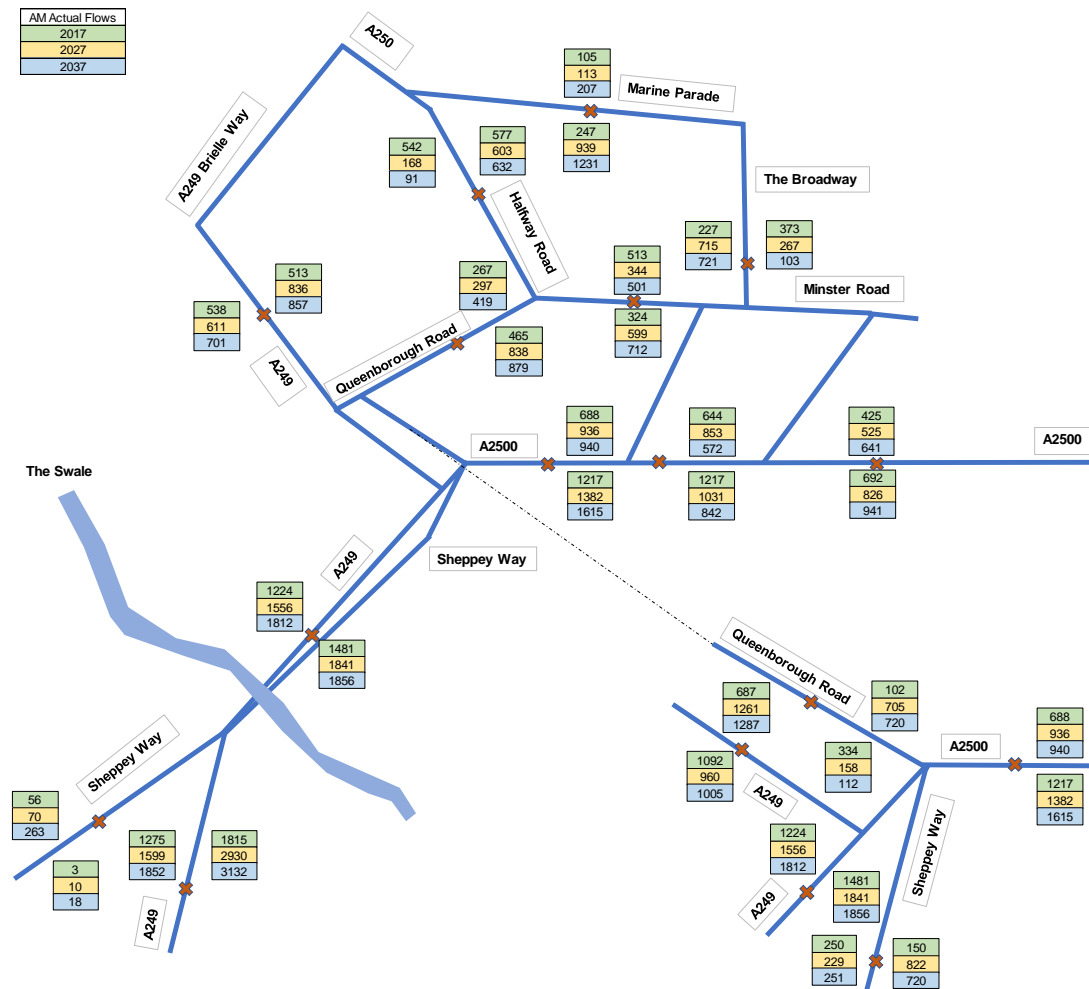


Figure 8-27 Flows on key roads in Sittingbourne Scenario 2 AM

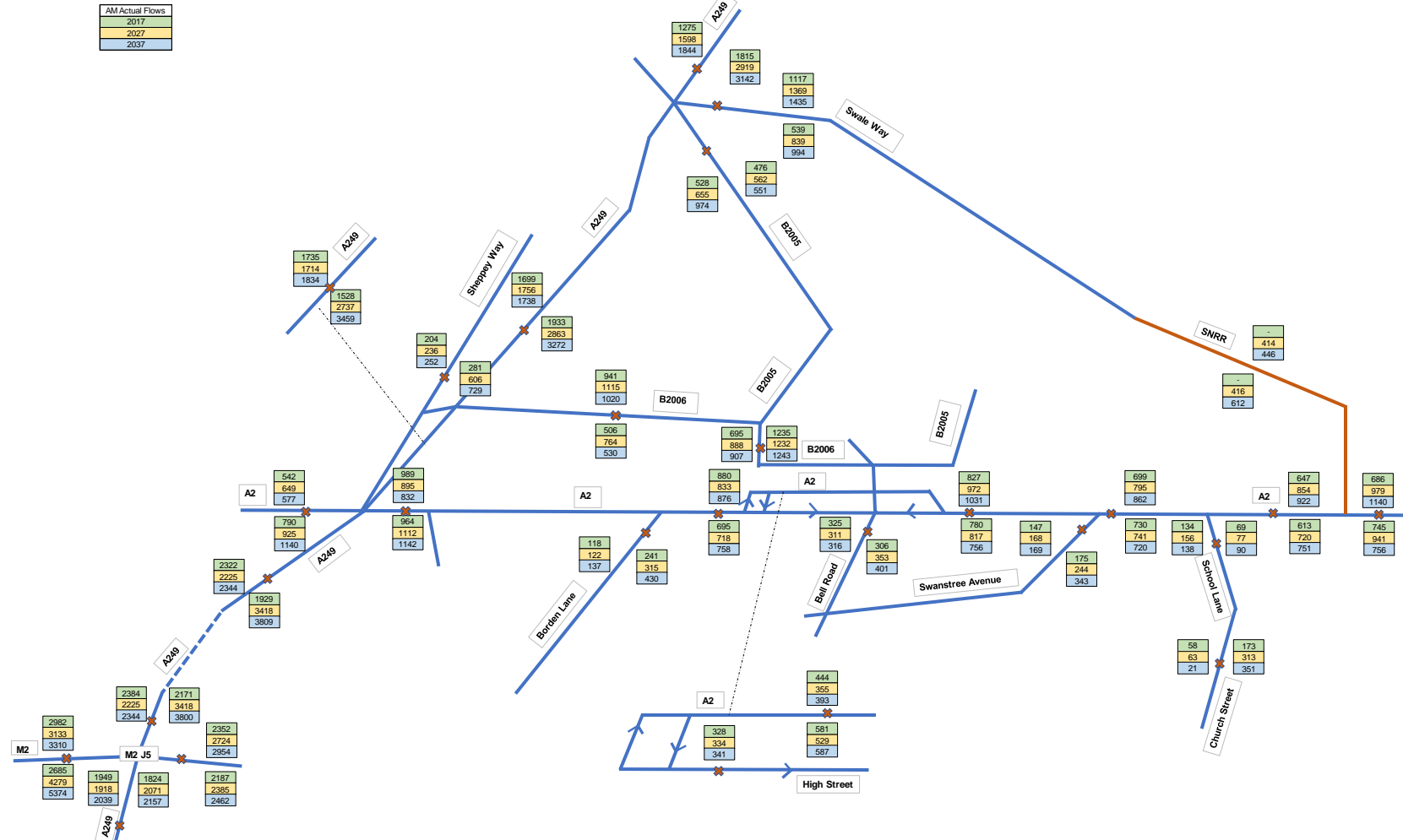


Figure 8-28 Flows on key roads in Faversham Scenario 2 AM

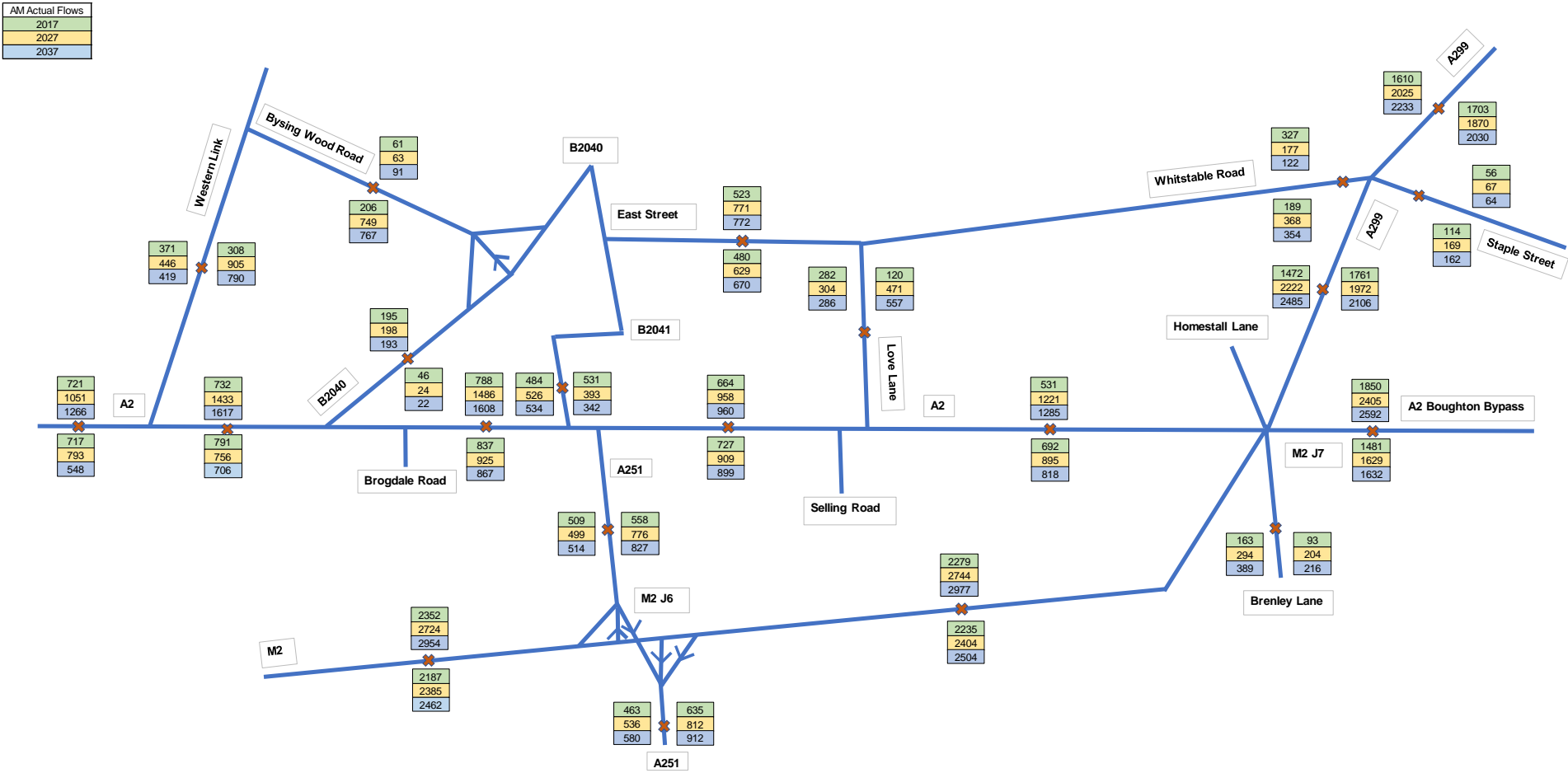


Figure 8-29 Flows on key roads in Isle of Sheppey Scenario 2 AM

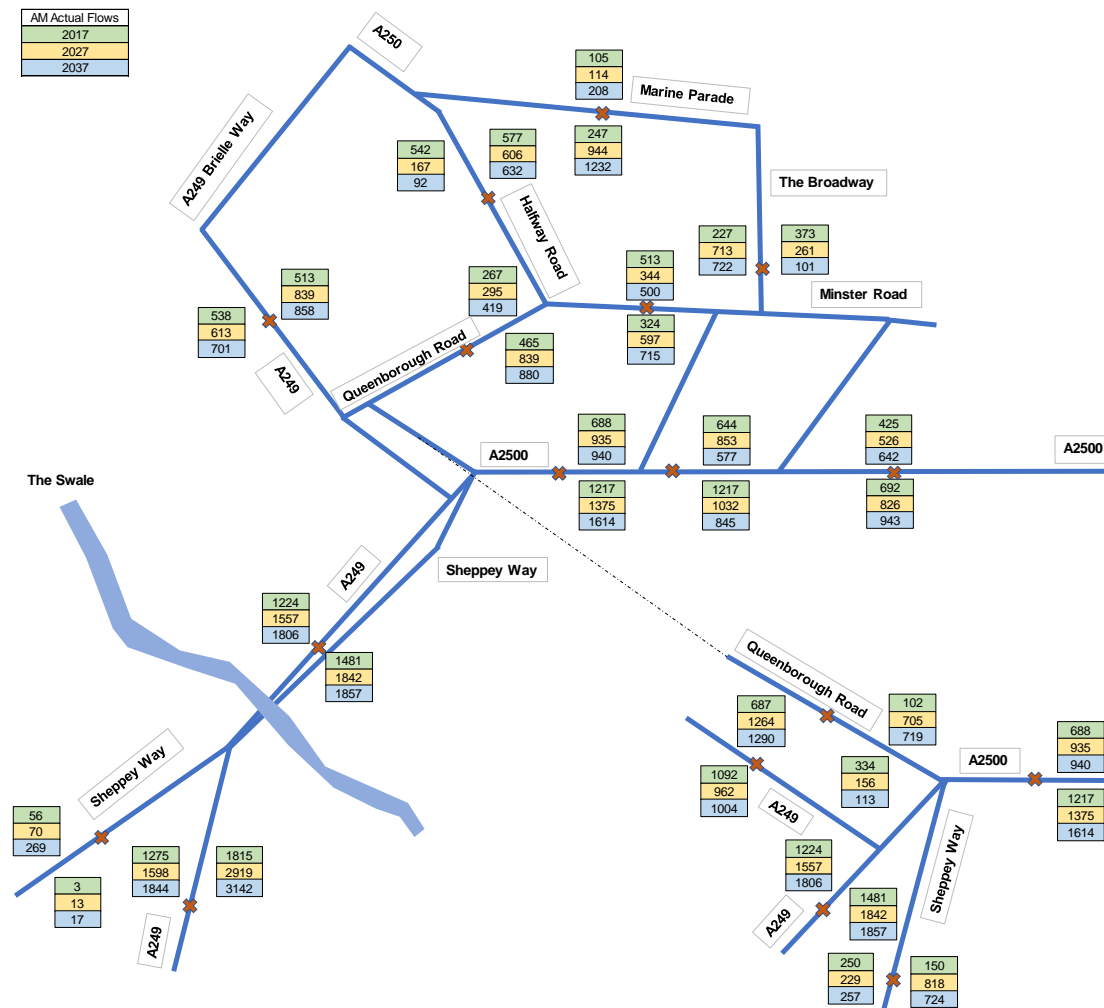


Figure 8-30 Flows on key roads in Sittingbourne Scenario 3 AM

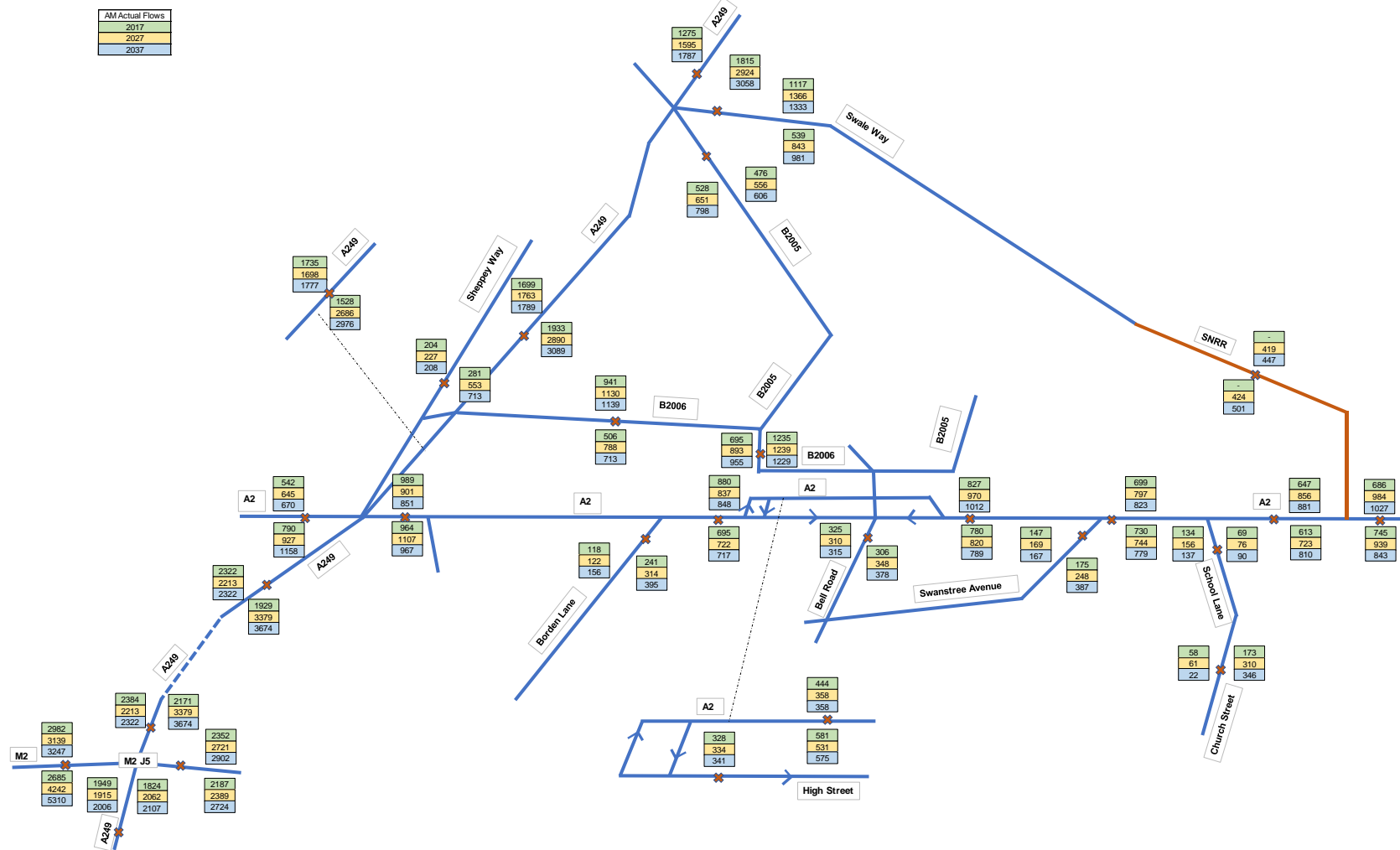


Figure 8-31 Flows on key roads in Faversham Scenario 3 AM

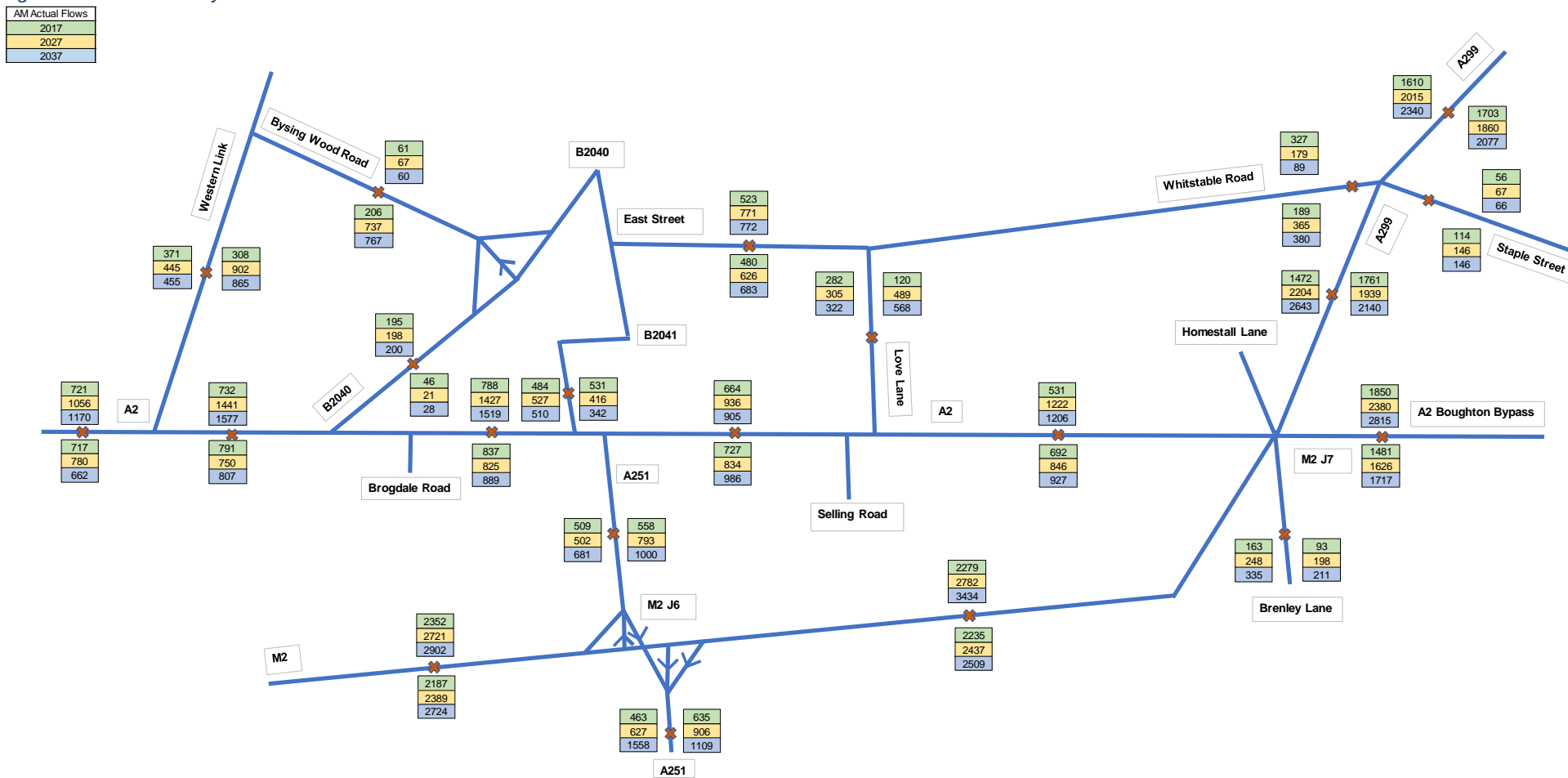


Figure 8-32 Flows on key roads in Isle of Sheppey Scenario 3 AM

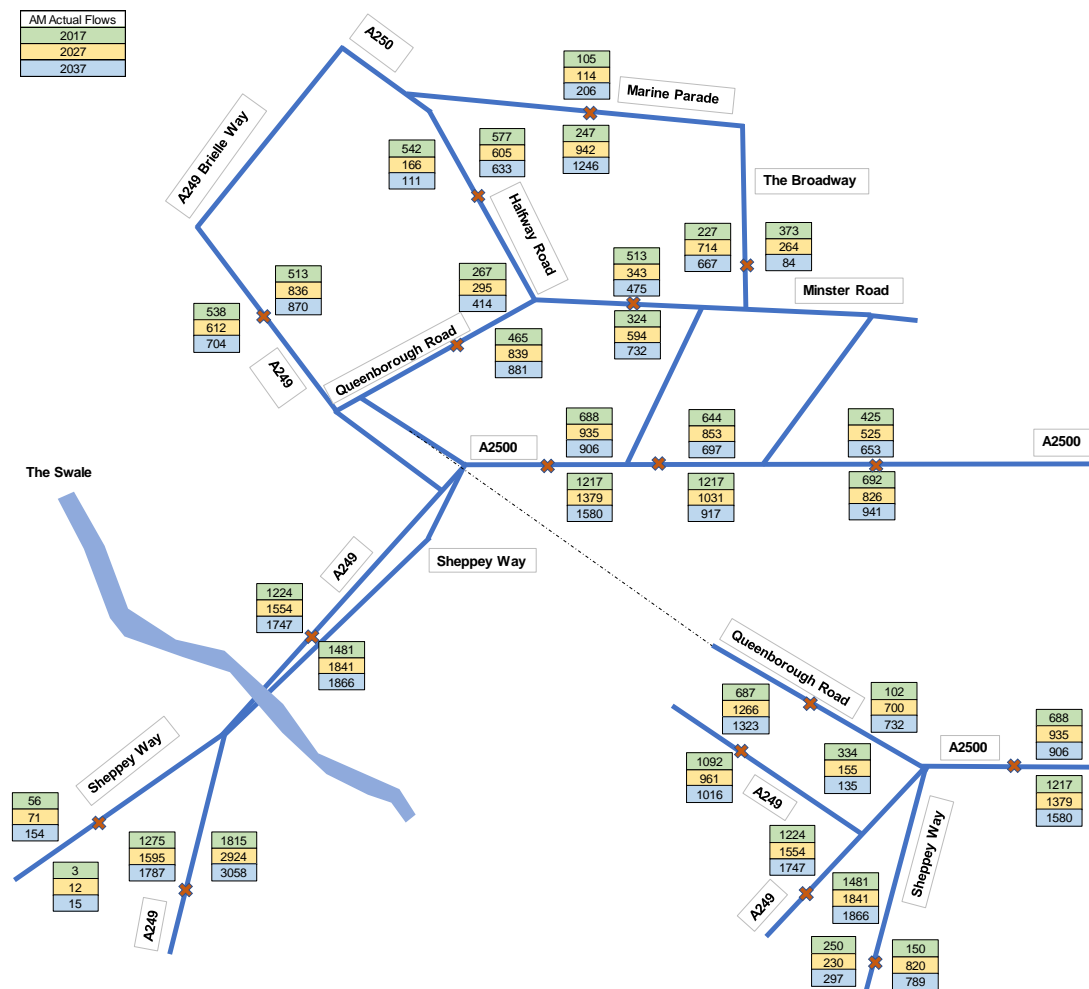


Figure 8-33 Flows on key roads in Sittingbourne Scenario 4 AM

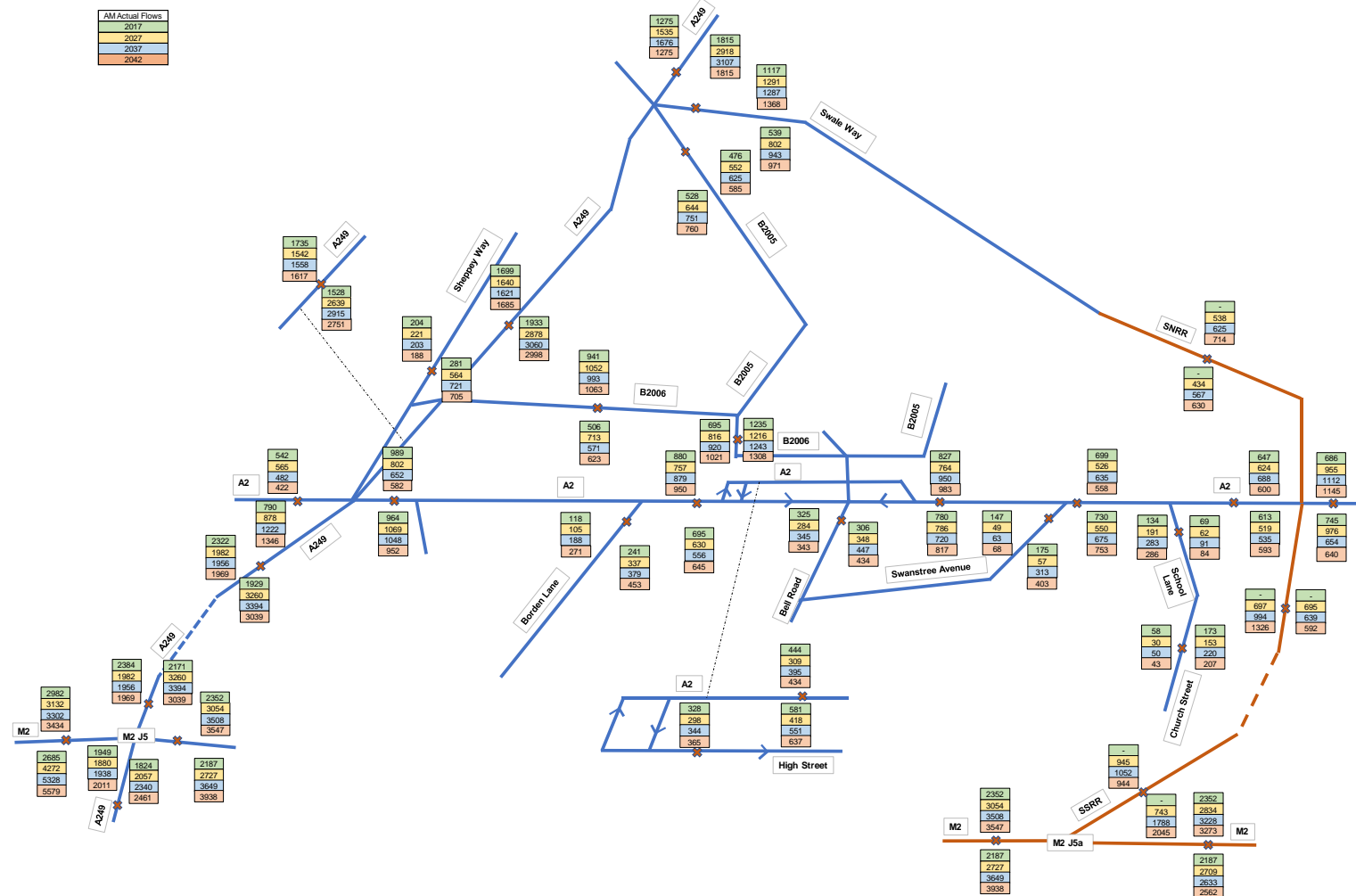


Figure 8-34 Flows on key roads in Faversham Scenario 4 AM

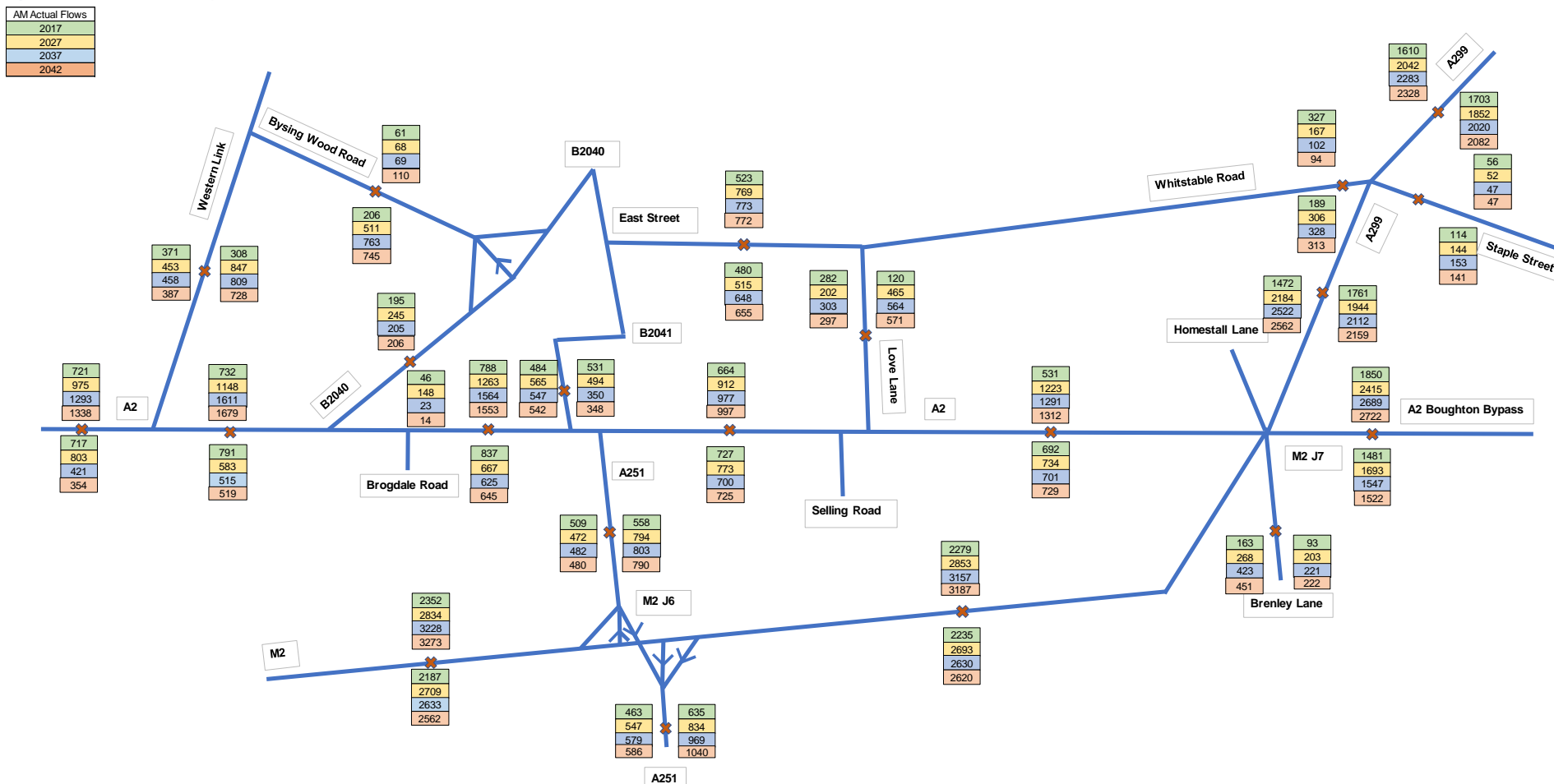


Figure 8-35 Flows on key roads in Isle of Sheppey Scenario 4 AM

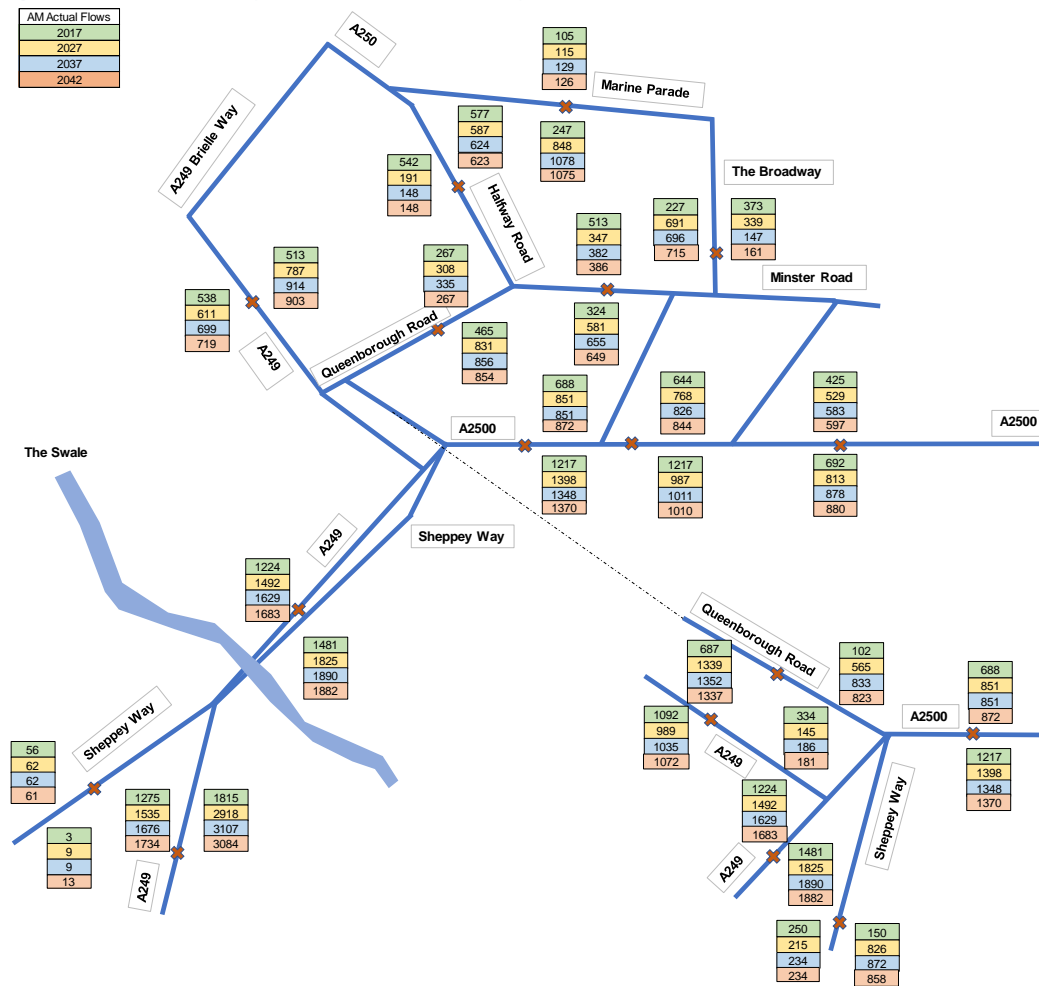


Figure 8-36 Flows on key roads in Sittingbourne Scenario 1 PM

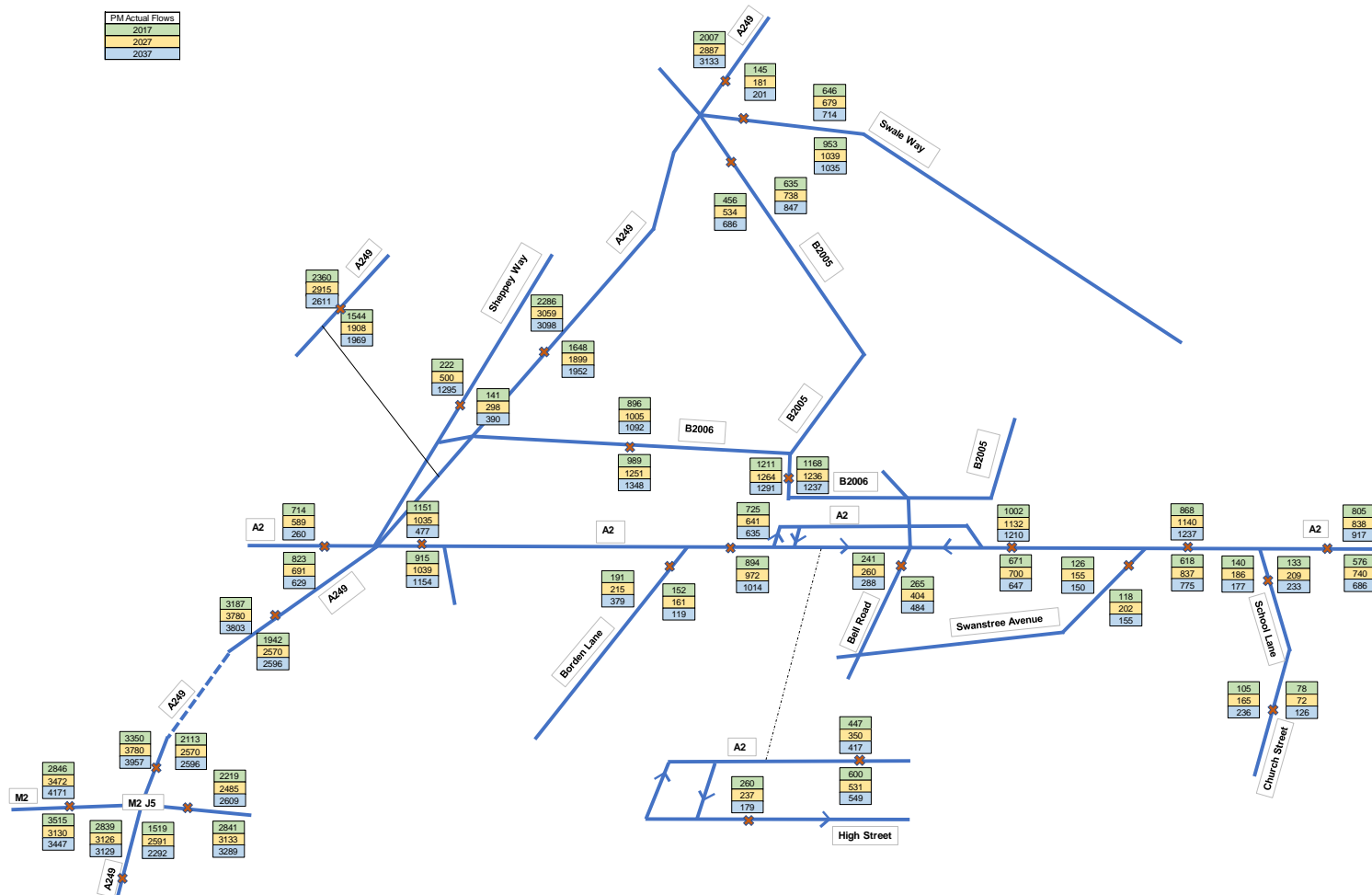


Figure 8-37 Flows on key roads in Faversham Scenario 1 PM

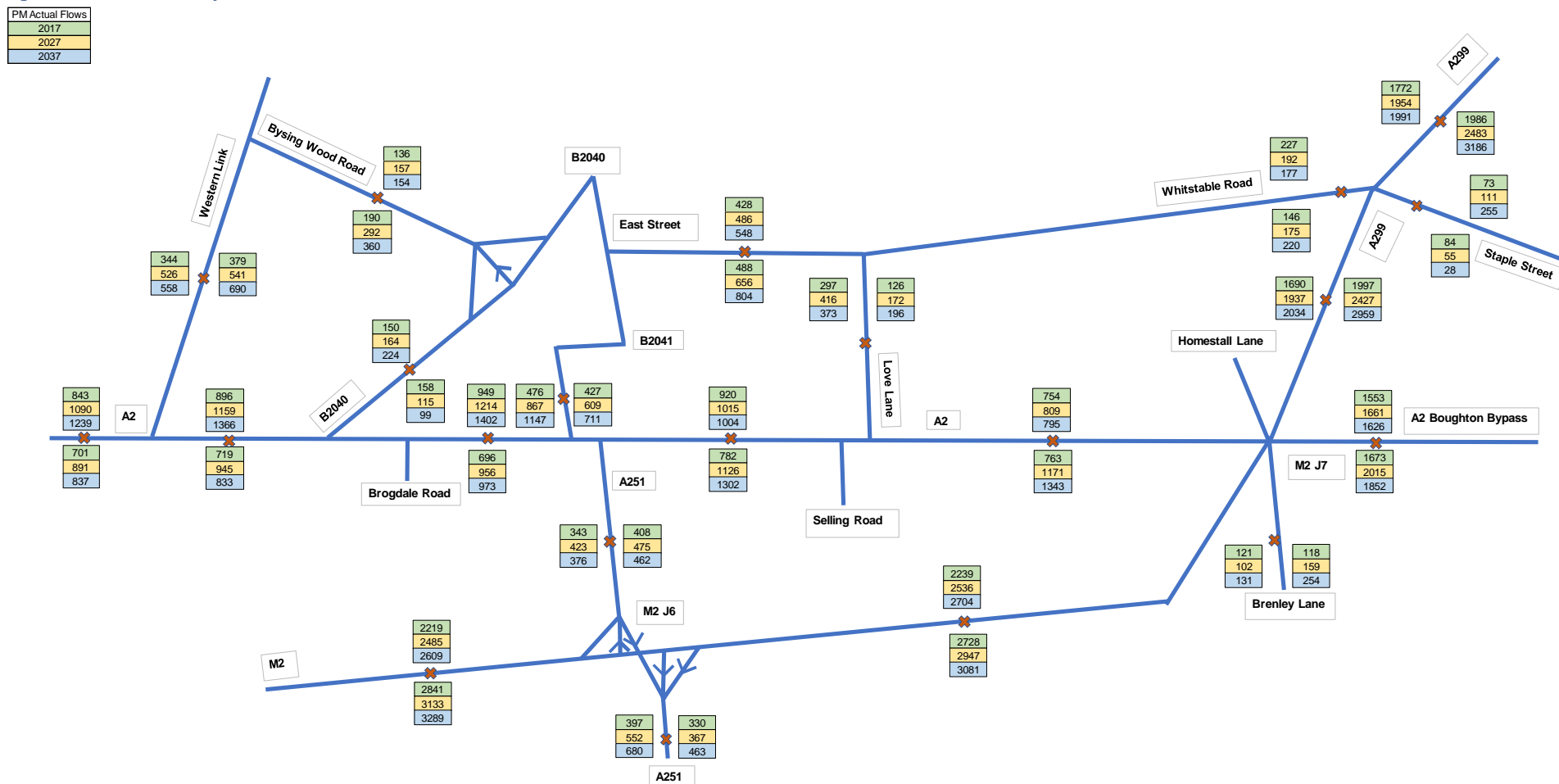


Figure 8-38 Flows on key roads in Isle of Sheppey Scenario 1 PM

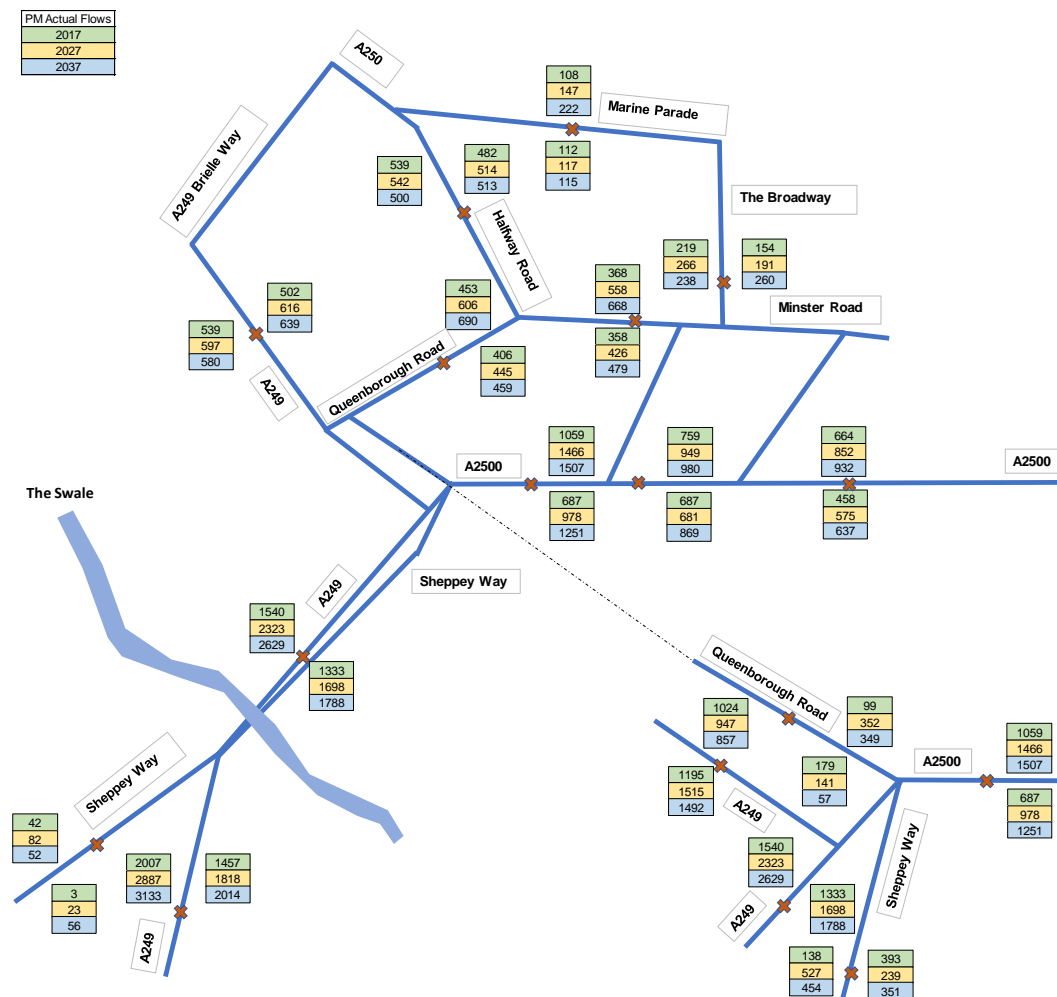


Figure 8-39 Flows on key roads in Sittingbourne Scenario 2 PM

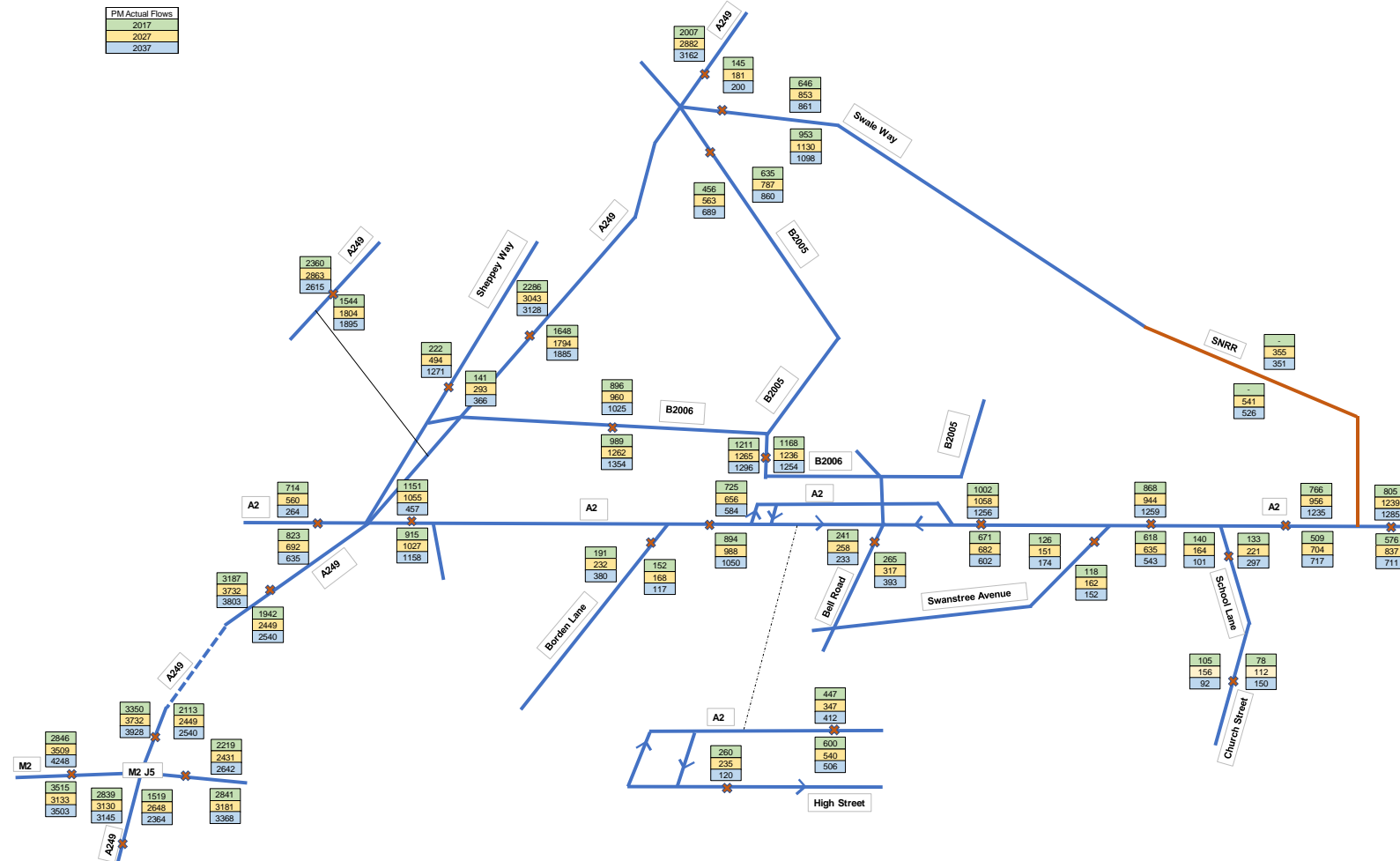


Figure 8-40 Flows on key roads in Faversham Scenario 2 PM

| PM Actual Flows | |
|-----------------|--|
| 2017 | |
| 2027 | |
| 2037 | |

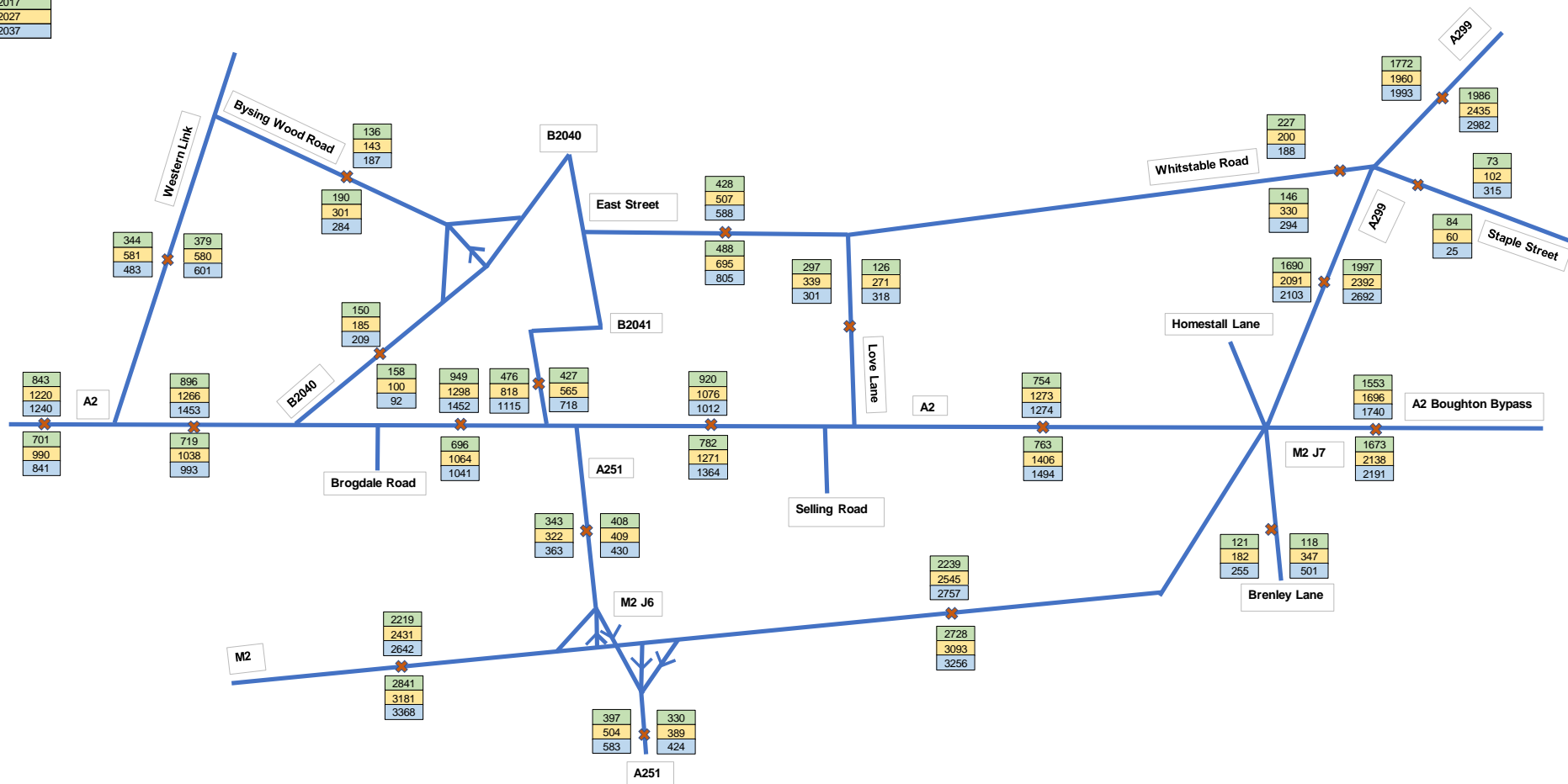


Figure 8-41 Flows on key roads in Isle of Sheppey Scenario 2 PM

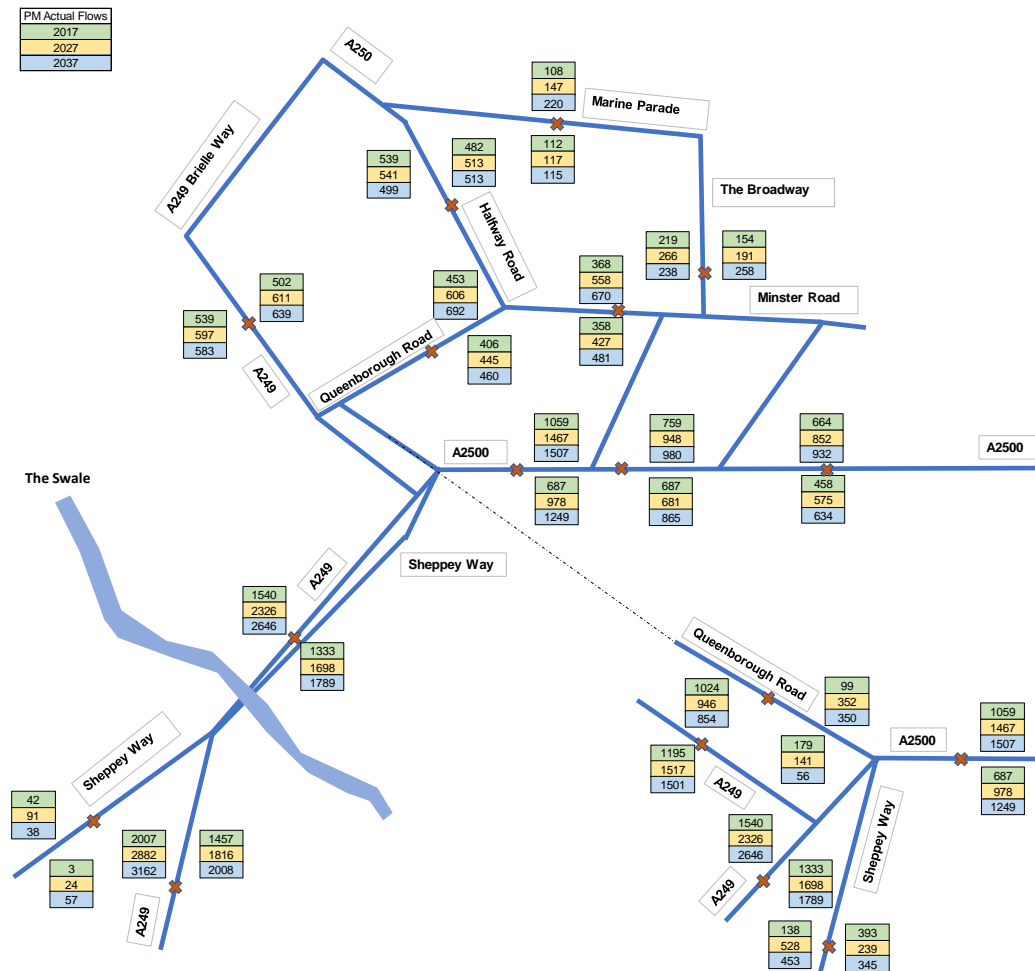


Figure 8-42 Flows on key roads in Sittingbourne Scenario 3 PM

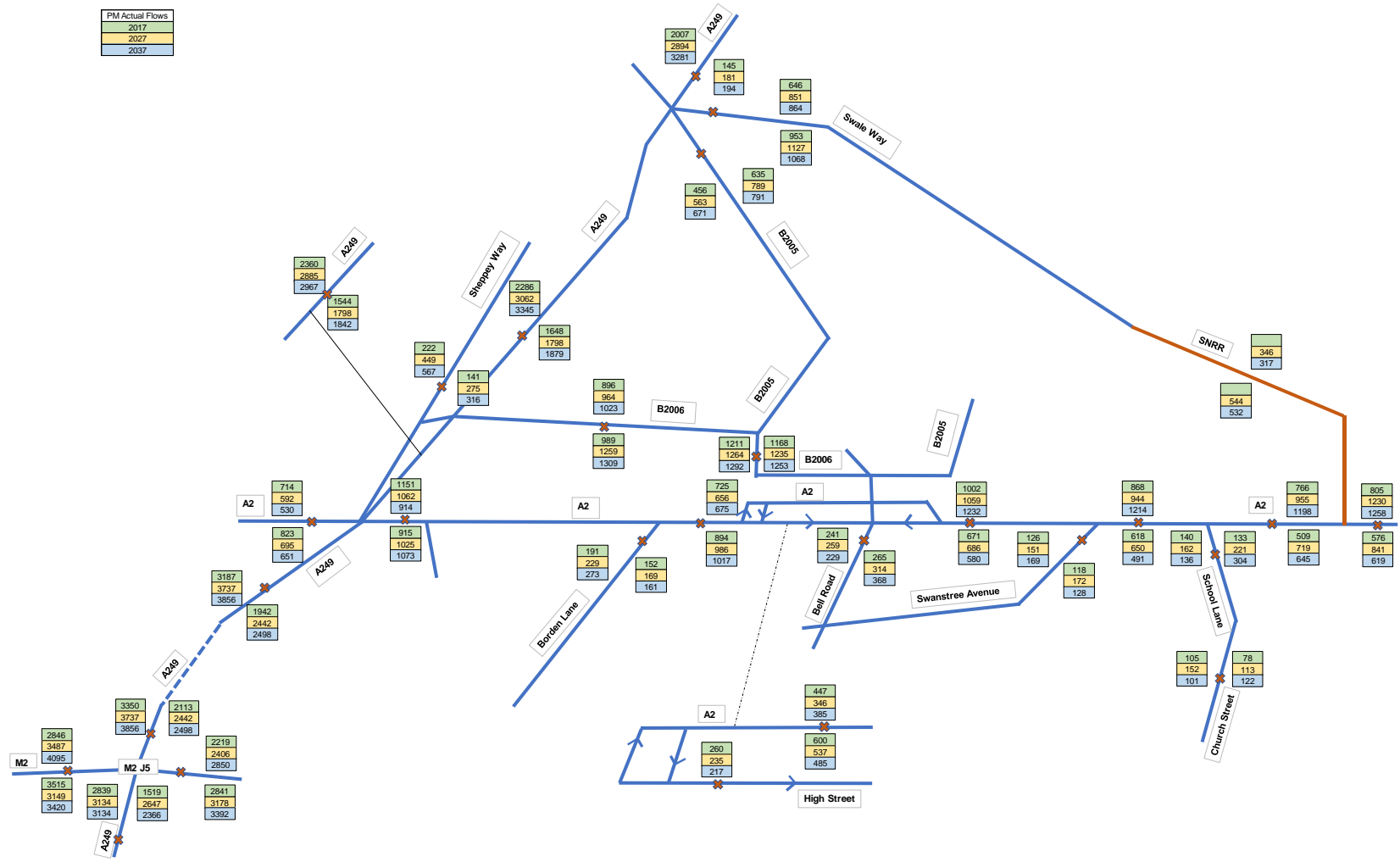


Figure 8-43 Flows on key roads in Faversham Scenario 3 PM

| PM Actual Flows | |
|-----------------|--|
| 2017 | |
| 2027 | |
| 2037 | |

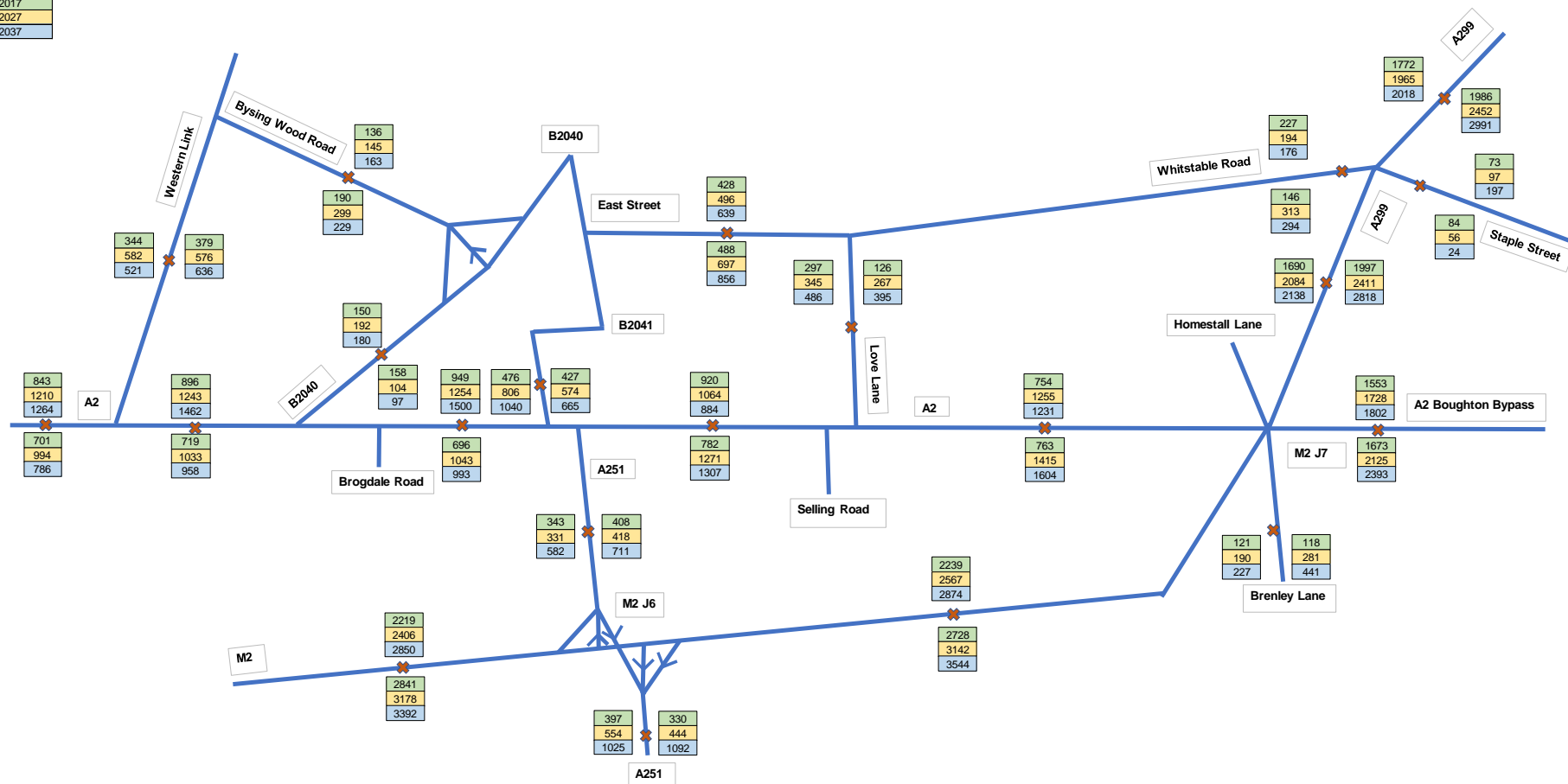


Figure 8-44 Flows on key roads in Isle of Sheppey Scenario 3 PM

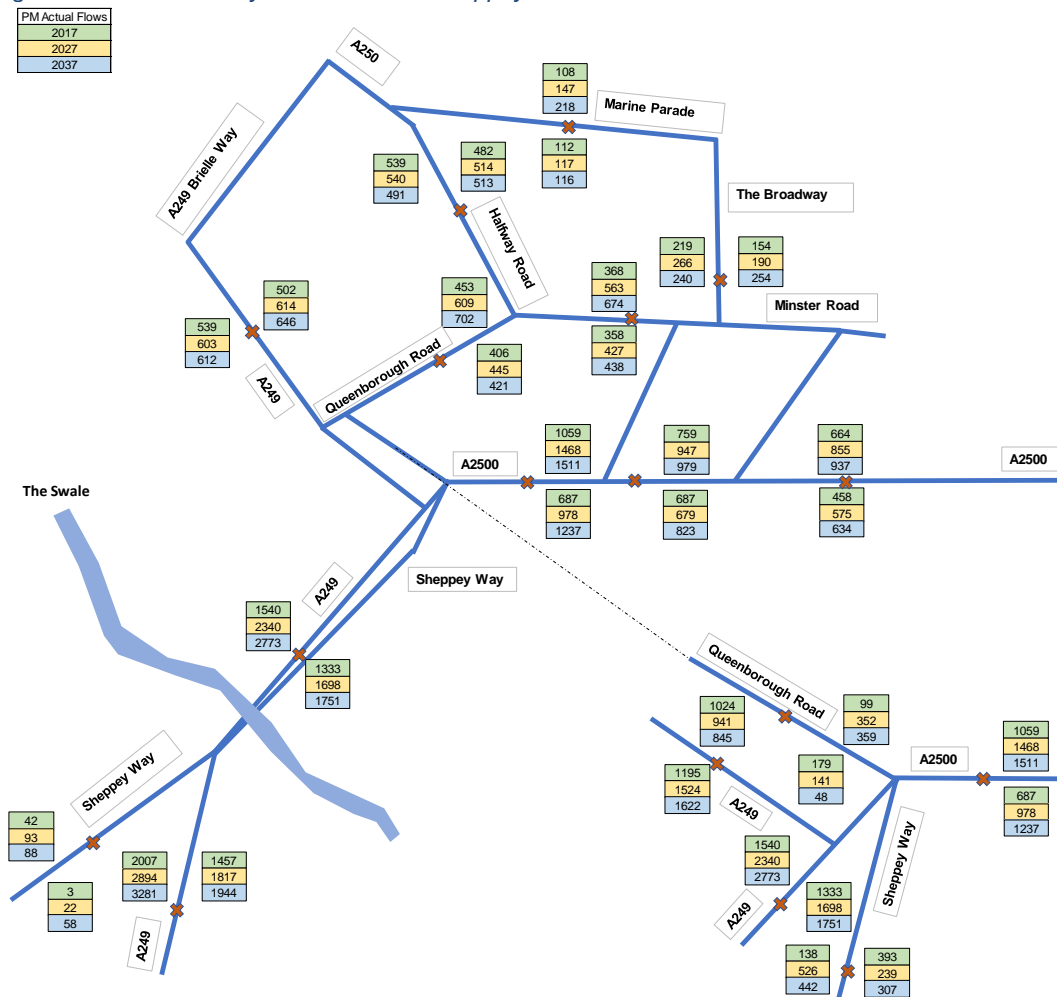


Figure 8-45 Flows on key roads in Sittingbourne Scenario 4 PM

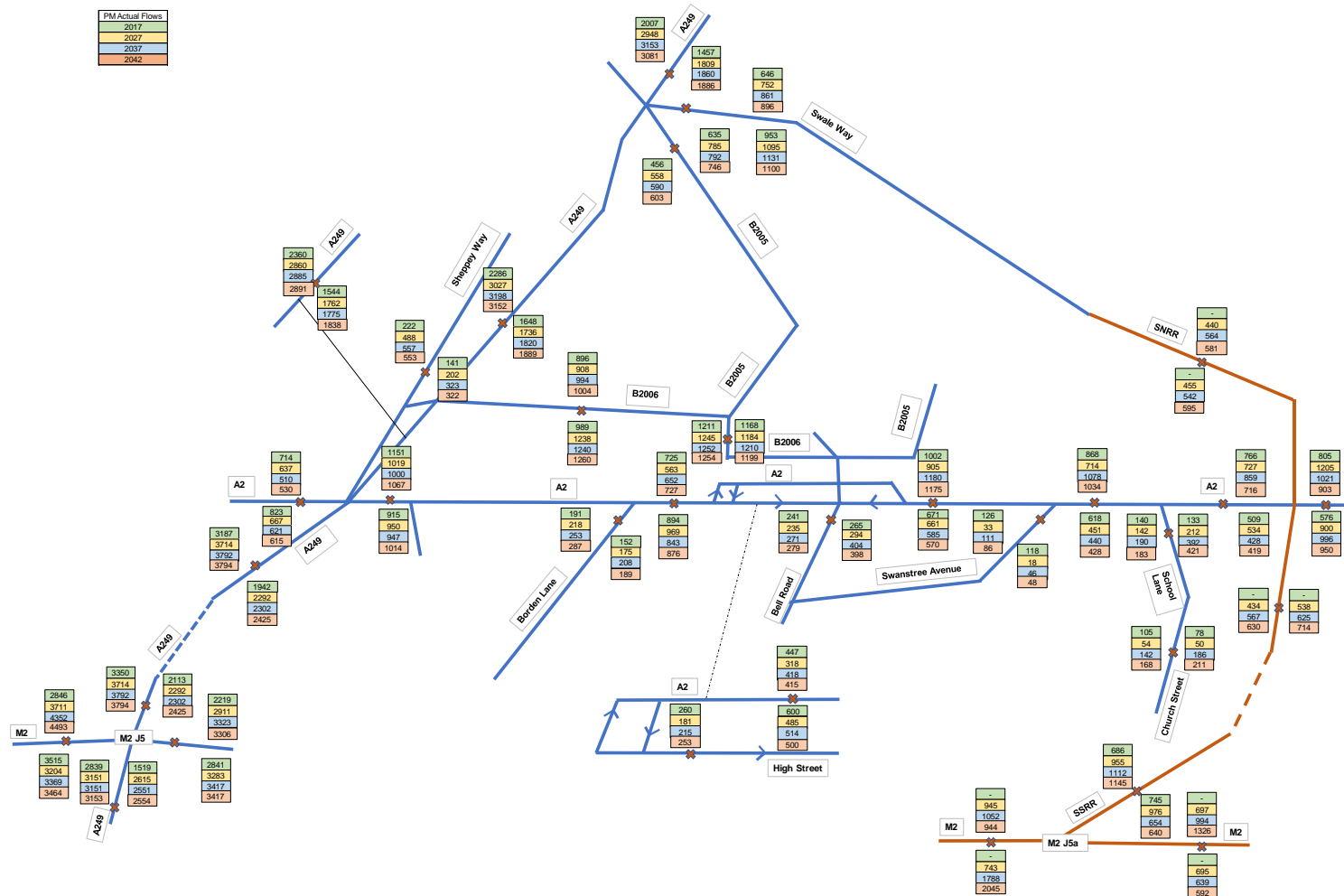


Figure 8-46 Flows on key roads in Faversham Scenario 4 PM

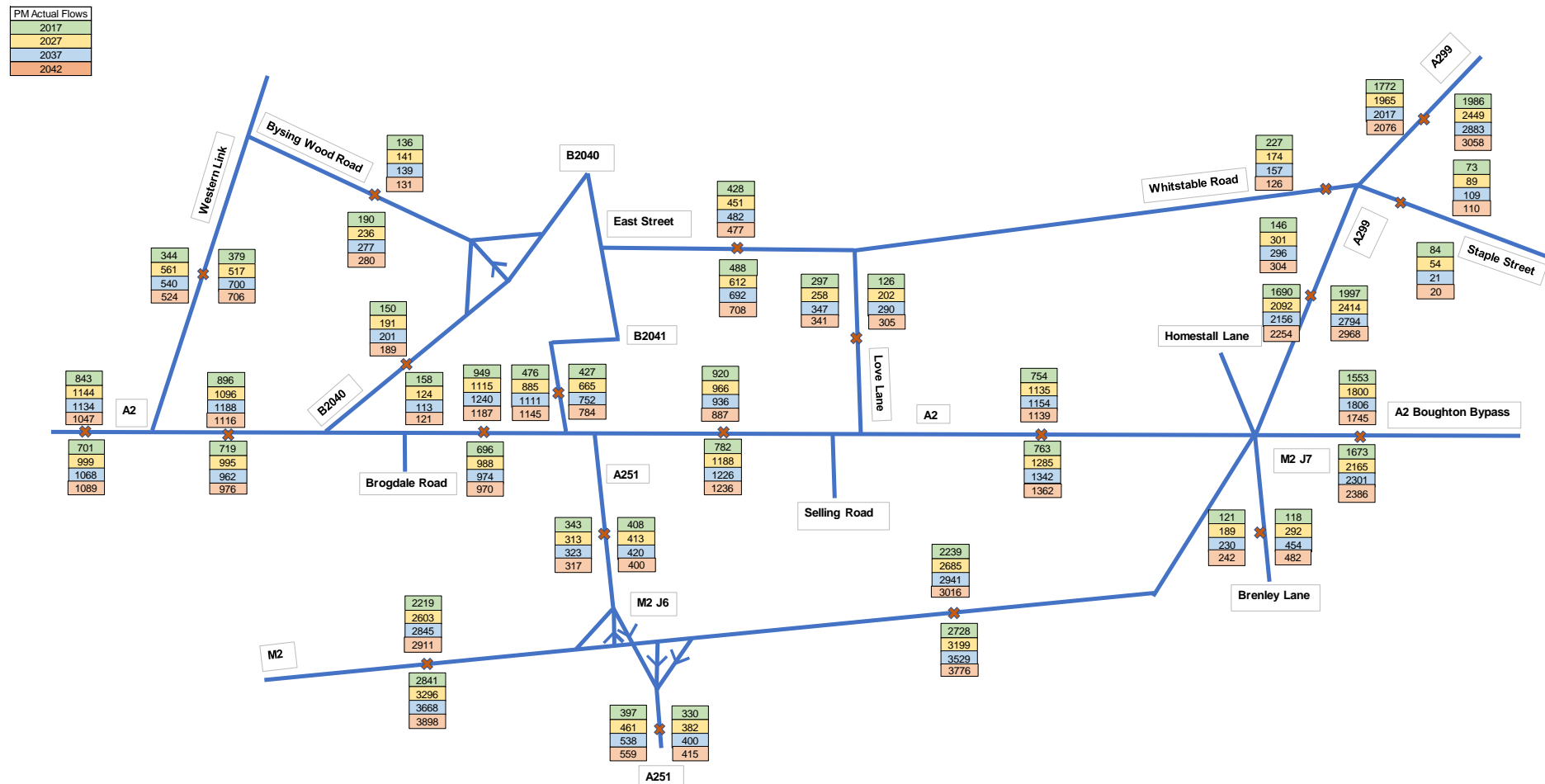
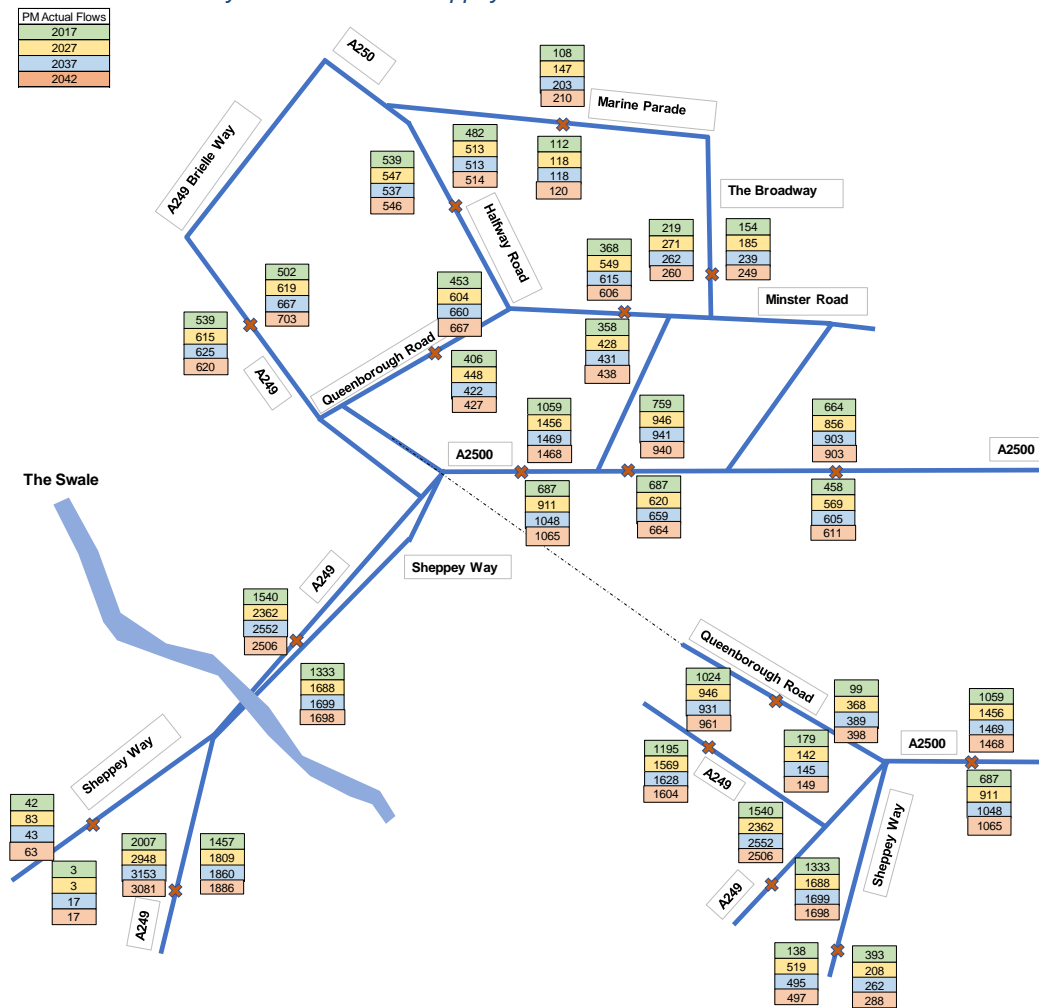


Figure 8-47 Flows on key roads in Isle of Sheppey Scenario 4 PM



Flow summary- Sittingbourne

Table 8-5 is a summary table showing some selected links from the stick diagrams within Sittingbourne for base 2017, 2037 and 2042 during each time period. The highlighted links show the changes in terms of the lowest in 2037 flow (in Green) and the highlighted in 2037 (in Red) for each scenario.

Table 8-5 Sittingbourne AM Selected Links Flow Summary

| * | Base 2017 | Scenario 1 2037 | Scenario 2 2037 | Scenario 3 2037 | Scenario 4 2037 | Scenario 4 2042 |
|--------------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Swale Way EB | 1117 | 1224 | 1435 | 1333 | 1287 | 1368 |
| Sheppey Way SB | 281 | 672 | 729 | 713 | 721 | 705 |
| A2 Bordon Lane WB | 695 | 806 | 758 | 717 | 556 | 645 |
| A249 SB | 1929 | 3801 | 3809 | 3674 | 3394 | 3039 |
| A2 West of Bapchild EB | 730 | 979 | 720 | 823 | 635 | 558 |
| A2 West of Bapchild WB | 699 | 1036 | 862 | 779 | 675 | 753 |
| School Lane Bapchild N/B | 134 | 294 | 138 | 137 | 283 | 286 |
| Bell Road N/B | 325 | 294 | 316 | 315 | 345 | 343 |
| M2 W of J5 WB | 2685 | 5293 | 5374 | 5310 | 5328 | 5579 |
| Mill Way EB | 1235 | 1331 | 1243 | 1229 | 1243 | 1308 |
| A2 East of Bapchild EB | 686 | 894 | 1140 | 1027 | 1112 | 1145 |
| A2 East of Bapchild WB | 745 | 721 | 756 | 843 | 654 | 640 |

* Green highlight indicates lowest 2037 flow, and red highlight indicates highest 2037 flow.

The key findings from Table 8-5 are as follows:

- Scenarios 3 and 4 offer the least traffic impact in Sittingbourne;
- Sittingbourne Town Centre benefits from the introduction of the SNRR and SSRR;
- SNRR on its own significantly increases traffic on A2 East of Bapchild;
- Scenario 1 causes significant concern in Sittingbourne Town Centre, Bapchild and A249;
- All scenarios require M2 upgrade;
- Scenario 1 offers the least traffic impact for A2 East of Bapchild; and
- There are significant increases in all scenarios on Swale Way.

Flow summary- Faversham

Table 8-6 is a summary table showing some selected links from the stick diagrams within Faversham for base 2017, 2037 and 2042 during each time period. The highlighted links show the changes in terms of the lowest in 2037 flow (in Green) and the highlighted in 2037 (in Red) for each scenario.

Table 8-6 Faversham AM Selected Links Flow Summary

| * | Base 2017 | Scenario 1 2037 | Scenario 2 2037 | Scenario 3 2037 | Scenario 4 2037 | Scenario 4 2042 |
|----------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Western Link SB | 308 | 922 | 790 | 865 | 809 | 728 |
| A2 Ospringe EB | 732 | 1555 | 1617 | 1577 | 1611 | 1679 |
| A2 Ospringe WB | 791 | 545 | 706 | 807 | 515 | 519 |
| A251 SB | 558 | 1584 | 827 | 1000 | 803 | 790 |
| A251 NB | 509 | 837 | 514 | 681 | 482 | 480 |
| A251 South of M2 SB | 635 | 1025 | 912 | 1109 | 969 | 1040 |
| A2 East of Love Lane | 531 | 475 | 1285 | 1206 | 1291 | 1312 |
| Love Lane SB | 120 | 685 | 557 | 568 | 564 | 571 |
| M2 West of J6 WB | 2187 | 2618 | 2462 | 2724 | 2633 | 2562 |

* **Green** highlight indicates lowest 2037 flow, and **red** highlight indicates highest 2037 flow.

The key findings from Table 8-6 are as follows:

- Scenarios 2 and 4 offer the least traffic overall impact in Faversham;
- The best scenarios for A2 Ospringe are 1 and 4. There remains a minimum increase of 600 movements in the AM peak;
- Scenarios 1 and 3 have large impacts on the town in particular M2, A251 and Western Link; and
- There are significant increases in all scenarios on Western Link.

Flow summary- Isle of Sheppey

Table 8-7 is a summary table showing some selected links from the stick diagrams within Isle of Sheppey for base 2017, 2037 and 2042 during each time period. The highlighted links show the changes in terms of the lowest in 2037 flow (in Green) and the highlighted in 2037 (in Red) for each scenario.

Table 8-7 Isle of Sheppey AM Selected Links Flow Summary

| * | Base 2017 | Scenario 1 2037 | Scenario 2 2037 | Scenario 3 2037 | Scenario 4 2037 | Scenario 4 2042 |
|------------------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Marine Parade WB | 247 | 1231 | 1232 | 1246 | 1078 | 1075 |
| Minster Road WB | 324 | 712 | 715 | 732 | 655 | 649 |
| Lower Road WB | 1217 | 1615 | 1614 | 1580 | 1348 | 1370 |
| A2500 East WB | 692 | 941 | 943 | 941 | 878 | 880 |

* **Green** highlight indicates lowest 2037 flow, and **red** highlight indicates highest 2037 flow

The key findings from Table 8-7 are as follows:

- There is concern regarding background growth from Minster East;
- Scenario 4 offers the least impact on the Island's traffic; and
- There are significant increases on Marine Parade and Minster Road in all scenarios.

Conclusion from flow summary

Scenario 1

- A2 through Sittingbourne Town Centre is overloaded; and
- A249 overloaded.

Scenario 2

- Reassignment away from A249 onto Swale Way and A2 East of Bapchild;
- Increases in A2 through Teynham, Ospringe and Faversham; and
- Any SNRR benefits to the A249 removed by additional houses.

Scenario 3

- There is an increase in the Faversham area;
- Increase in the M2 flows in both directions, results in some reassignment onto the A2, Newington for traffic heading to/from Sheppey; and
- Decrease in flows in Sittingbourne area.

Scenario 4

- There is an increase in EB movements on the A2 and M2;
- Offers a decrease in WB movements on the A2;
- Reassignment of traffic off the A249 and away from Sittingbourne Town Centre onto Swale Way, SNRR and SSRR; and
- Increase in the M2 flows in both directions, results in some reassignment onto A2, Newington for traffic heading to/from Sheppey.

8.3 Network Delays and Congestion

Volume over Capacity ratio (V/C, also known as Degree of Saturation) can provide useful indication of network delays and congestions at key junctions and links. The heat diagrams shown in **Appendix D** show the degree of saturations for 93 key junctions in Swale for the base year 2017 and the forecast 2027 and 2037 during AM and PM peak hours for each Local Plan scenario (2042 included for Scenario 4). The degree of saturation has been analysed for the highest V/C (i.e. highest V/C on any of the approach arms to the junction) at all 93 junctions as shown in Figure 8-48 and Figure 8-49 below.

Figure 8-48 Junctions within the model (wider area)

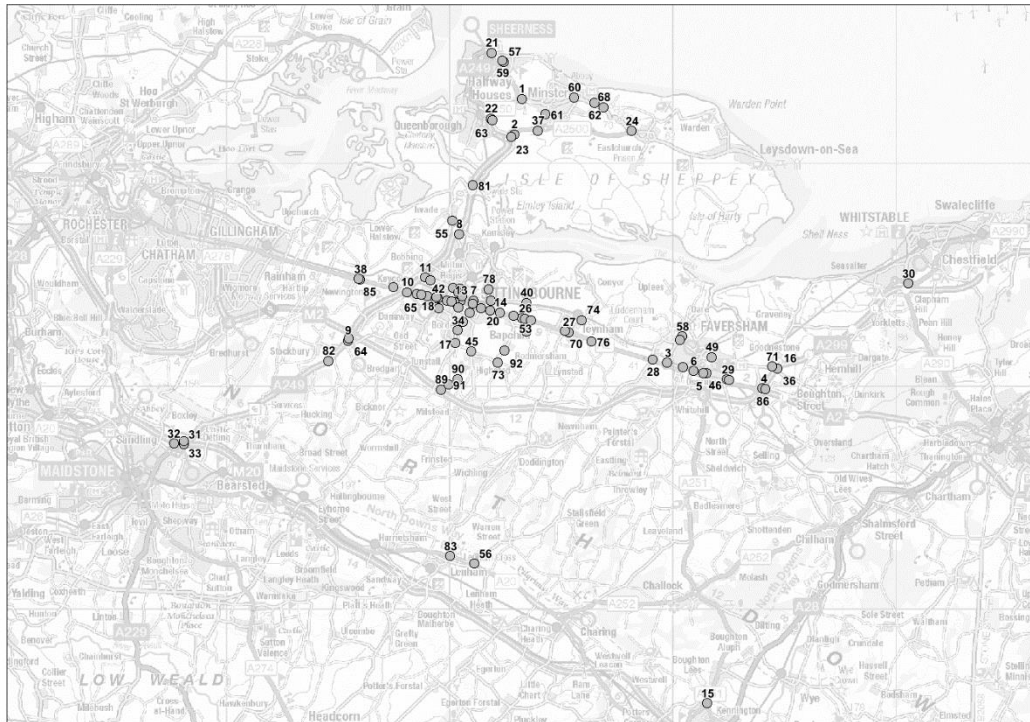


Figure 8-49 Junctions in Swale and Faversham

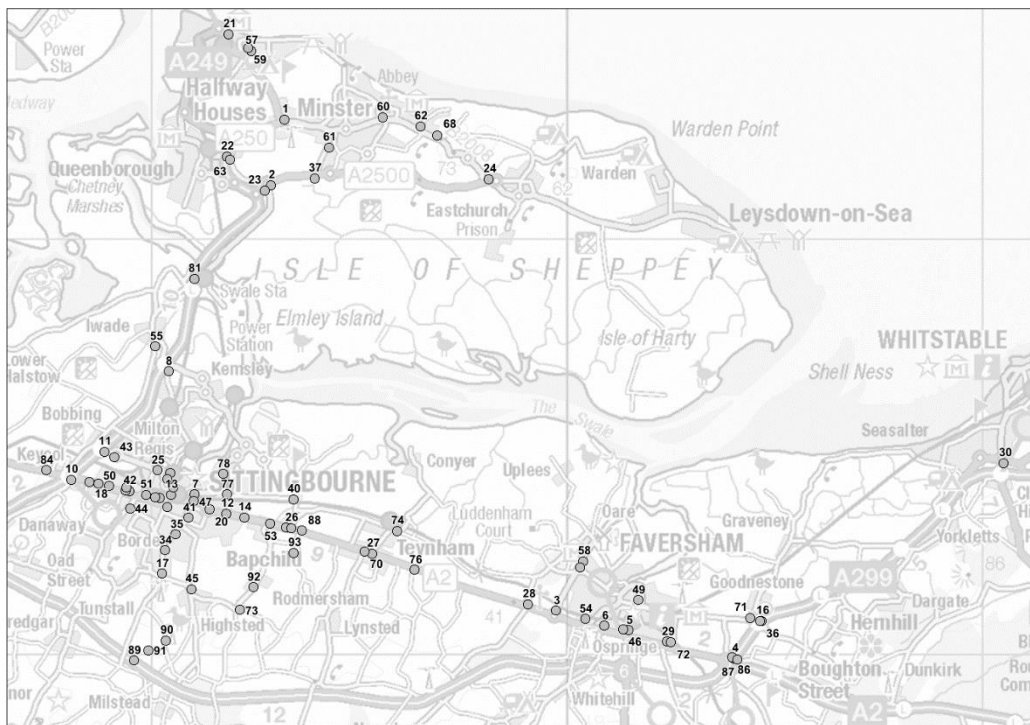


Figure 8-50 shows the selected 54 junctions and the proposed transport schemes.

Figure 8-50 Junctions and transport schemes

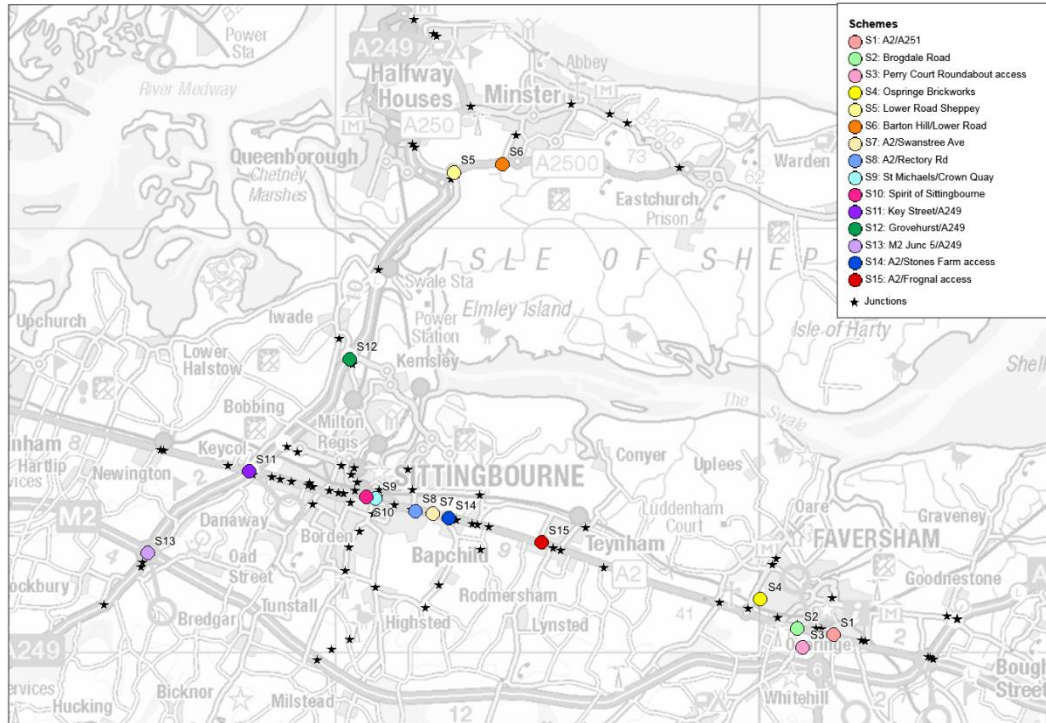


Table 8-8 and Table 8-9 shows a summary of the congestions (weighted V/C% and highest V/C% respectively) in a tabular form with different colours representing degree of congestions as defined below:

- Overloaded (>100%);
- Above practical capacity (95-100%);
- At practical capacity (90-95%);
- Exceeding capacity threshold (85-90%);
- Approaching capacity threshold (80-85%); and
- Below 80% capacity.

Appendix D, show the heat diagrams for the congested links and junctions within Swale for each scenario

Table 8-8 Summary of the congestions (weighted junction V/C)

| JunctionID | Description | Schemes included | Weighted | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|------------------|----------|----|----------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------|--|
| | | | Base | | Reference Case | | | | Scenario 1 | | | | Scenario 2 | | | | Scenario 3 | | | | Scenario 4 | | | | | |
| | | | 2017 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2042 | |
| | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | | |
| 1 | Minster Road/ A250 Halfway Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | A250 Lower Road/Sheppey Way | S5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | A2 London Road/Western Link | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | M2 Junction 7 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | A2/A251 Ashford Road | S1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | A2/Brogdale Road | S2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | B2006 Eurolink Way/Crown Quay Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Grovehurst/ Swale Way/B2005 | S12 | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | M2 Junction 5 | S13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | A2 Key Street/A249 | S11 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | A249/B2006 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | A2 Canterbury Road/Murston Road/Rectory Road | S8 | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | A2 Dover Street/Milton Road | S10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | A2 Canterbury Road/Swanstree Avenue | S7 | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | A2042 Faversham Road/Trinity Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | A299 Thanet Way/Staple St | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | Tunstall Rd/Woodstock Rd | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | A2 London Road/Wises Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | B2006/ B2005 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | A2 St Michael's Road/East Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | A250 Millenium Way/High Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | A249 Brielle Way /B2007 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | A249/A2500 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | Lower Road/East Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | B2006 Staplehurst Road/Chalkwell Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | A2 London Road/Hempstead Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | A2 London Road/Station Road (Tevnham) | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | A2 London Road/Faversham Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | A2 Canterbury Road/Selling Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | A299 Thanet Way/Clapham Hill | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | M20 J7 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | M20J7 Onslip WB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | M20J7 Offslip EB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | Gore Court Road/Bell Road/Park Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | Bell Road/Capel Road/Brenchley Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | A299 Thanet Way/Whitstable Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | A2500 Lower Road/Barton Hill Drive | S6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | A2 High Street/Church Lane (Newington) | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | B2006 Mill Way/ExitCarpark | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | Church Road/Lomas Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 41 | Bell Road/Stanhope Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 42 | A2 London Road/Adelaide Drive | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | B2006/Sonora Way | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | Borden Lane/Homewood Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | Cromer Road/Highsted Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | A2 Canterbury Road/B2041 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 47 | A2 St Michael's Road/Crown Quay Lane | S9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 48 | A2 London Road/Hawthorn Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 49 | East Street/B2040 (Faversham) | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | A2/Westlands Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | |

| JunctionID | Description | Schemes included | Weighted | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------------------------------------|------------------|----------|----|----------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------|--|
| | | | Base | | Reference Case | | | | Scenario 1 | | | | Scenario 2 | | | | Scenario 3 | | | | Scenario 4 | | | | | |
| | | | 2017 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2042 | |
| | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | | |
| 51 | A2/Chalkwell Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | A2/Burley Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | A2/School Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 54 | A2/B2040 South Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | Sheppey Way/Grovehurst Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | A20 Ashford Road/Hubbards Hill | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 57 | Invicta Road/Cavour Rd Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 58 | Western Link Road/Bysing Wood Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 59 | Cavour Road/Alma Road Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | Minster Road/Back Lane Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | Barton Hill Drive/Plover Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 62 | Chequers Road/Elm Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | A250/Queenborough Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | M2J5 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | A2/Sandford Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 66 | A2/Staplehurst Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 67 | Staplehurst Road/Gadby Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 68 | Chequers Road/East Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 69 | A2/Panteny Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | A2/Lynsted Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 71 | Whitstable Road/Head Hill | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 72 | A2/Love Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 73 | Church Street/Connecting Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 74 | The Crescent/Conyer Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 75 | Western Link/Bysing Wood Road W | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 | A2/Lewson Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 77 | Tonge Road/Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 78 | Castle Road/Dolphin Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 79 | Eurolink Way/Milton Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | Park Road/Albany Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 81 | Sheppey Way/Old Ferry Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 82 | A249/S Green | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 83 | A20 Ashford Road/ Faversham Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 84 | A2/Rook Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 85 | A2/Bull Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 86 | M2 J7 Western RAB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 87 | M2 J7 Eastern RAB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 88 | A2/SSRR | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 89 | M2 J5a | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 | Broad Oak Road/SSRR | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 91 | SSRR (South) | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 92 | SSRR /Church Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 93 | SSRR/Wood Street | - | | | | | | | | | | | | | | | | | | | | | | | | |

Bolded- Major junctions with link capacity issue

Key

Junctions v/c 2037 AM (Highest)

- Overloaded (>100%)
- Above practical capacity (95-100%)
- At practical capacity (90-95%)
- Exceeding capacity threshold (85-90%)
- Approaching capacity threshold (80-85%)
- Below 80% capacity

Table 8-9 Summary of the congestions (highest junction V/C)

| JunctionID | Description | Schemes included | Highest | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|------------------|-----------|----|----------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------|----|--|--|
| | | | Base | | Reference Case | | | | Scenario 1 | | | | Scenario 2 | | | | Scenario 3 | | | | Scenario 4 | | | | | | | |
| | | | 2017 Base | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2042 | | | |
| | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | | |
| 1 | Minster Road/ A250 Halfway Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | A250 Lower Road/Sheppey Way | S5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | A2 London Road/Western Link | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | M2 Junction 7 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | A2/A251 Ashford Road | S1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | A2/Brogdale Road | S2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | B2006 Eurolink Way/Crown Quay Lane | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Grovehurst/ Swale Way/B2005 | S12 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | M2 Junction 5 | S13 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | A2 Key Street/A249 | S11 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | A249/B2006 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | A2 Canterbury Road/Murston Road/Becton Road | S8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | A2 Dover Street/Milton Road | S10 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | A2 Canterbury Road/Swanstree Avenue | S7 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | A2042 Faversham Road/Trinity Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | A299 Thanet Way/Staple St | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | Tunstall Rd/Woodstock Rd | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | A2 London Road/Wises Lane | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | B2006/ B2005 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | A2 St Michael's Road/East Street | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | A250 Millenium Way/High Street | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | A249 Brielle Way /B2007 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | A249/A2500 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | Lower Road/East Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | B2006 Staplehurst Road/Chalkwell Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | A2 London Road/Hempstead Lane | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | A2 London Road/Station Road (Teynham) | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | A2 London Road/Faversham Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | A2 Canterbury Road/Selling Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | A299 Thanet Way/Clapham Hill | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | M20 J7 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | M2017 Onslip WB | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | M2017 Offslip EB | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | Gore Court Road/Bell Road/Park Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | Bell Road/Capel Road/Brenchley Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | A299 Thanet Way/Whitstable Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | A2500 Lower Road/Barton Hill Drive | S6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | A2 High Street/Church Lane (Newington) | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | B2006 Mill Way/ExitCarpark | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | Church Road/Lomas Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 41 | Bell Road/Stanhope Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 42 | A2 London Road/Adelaide Drive | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | B2006/Sonora Way | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | Borden Lane/Homewood Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | Cromer Road/Highsted Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | A2 Canterbury Road/B2041 | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47 | A2 St Michael's Road/Crown Quay Lane | S9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 48 | A2 London Road/Hawthorn Road | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 49 | East Street/B2040 (Faversham) | - | | | | | | | | | | | | | | | | | | | | | | | | | | |

Bolded- Major junctions with link capacity issue

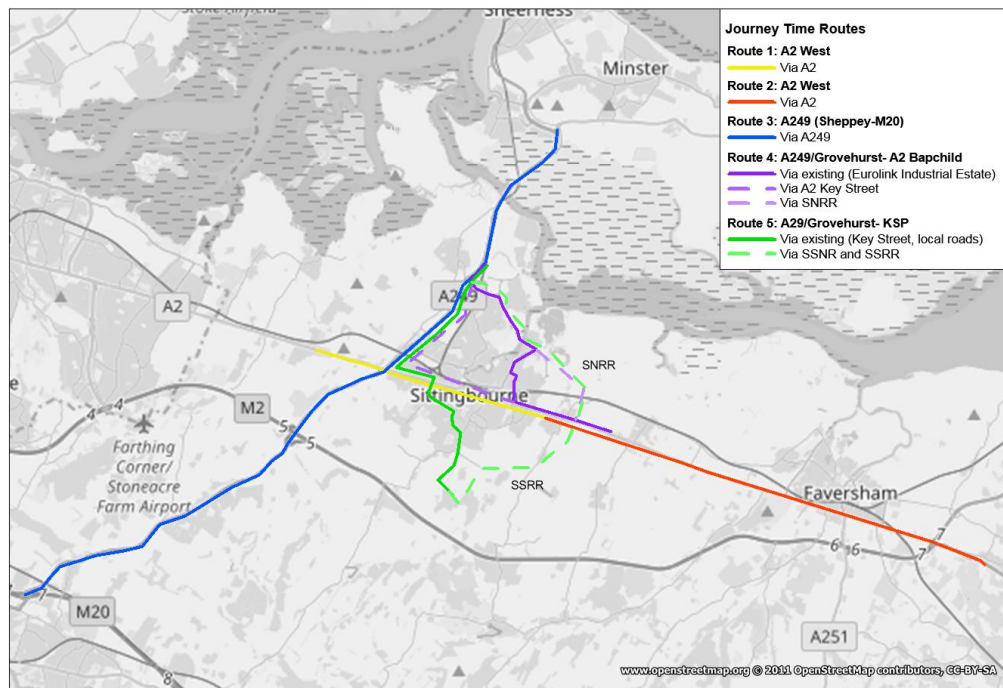
Key
 Junctions v/c 2037 AM (Highest)
 Overloaded (>100%)
 Above practical capacity (95-100%)
 At practical capacity (90-95%)
 Exceeding capacity threshold (85-90%)
 Approaching capacity threshold (80-85%)
 Below 80% capacity

| JunctionID | Description | Schemes included | Highest | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------------------------------------|------------------|-----------|----|----------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------------|----|------|----|------|--|
| | | | Base | | Reference Case | | | | Scenario 1 | | | | Scenario 2 | | | | Scenario 3 | | | | Scenario 4 | | | | | |
| | | | 2017 Base | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2027 | | 2037 | | 2042 | |
| | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | | |
| 50 | A2/Westlands Avenue | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | A2/Chalkwell Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | A2/Burley Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | A2/School Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 54 | A2/B2040 South Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | Sheppey Way/Grovehurst Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | A20 Ashford Road/Hubbards Hill | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 57 | Invicta Road/Cavour Rd Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 58 | Western Link Road/Bysing Wood Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 59 | Cavour Road/Alma Road Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | Minster Road/Back Lane Sheppey | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | Barton Hill Drive/Plover Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 62 | Chequers Road/Elm Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | A250/Queenborough Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | M2J5 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | A2/Sandford Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 66 | A2/Staplehurst Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 67 | Staplehurst Road/Gadby Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 68 | Chequers Road/East Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 69 | A2/Panteny Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | A2/Lynsted Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 71 | Whitstable Road/Head Hill | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 72 | A2/Love Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 73 | Church Street/Connecting Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 74 | The Crescent/Conyer Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 75 | Western Link/Bysing Wood Road W | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 | A2/Lewson Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 77 | Tonge Road/Church Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 78 | Castle Road/Dolphin Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 79 | Eurolink Way/Milton Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | Park Road/Albany Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 81 | Sheppey Way/Old Ferry Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 82 | A249/S Green | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 83 | A20 Ashford Road/ Faversham Road | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 84 | A2/Rook Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 85 | A2/Bull Lane | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 86 | M2 J7 Western RAB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 87 | M2 J7 Eastern RAB | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 88 | A2/SNRR | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 89 | M2 J5a | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 | Broad Oak Road/SSRR | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 91 | SSRR (South) | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 92 | SSRR /Church Street | - | | | | | | | | | | | | | | | | | | | | | | | | |
| 93 | SSRR/Wood Street | - | | | | | | | | | | | | | | | | | | | | | | | | |

8.4 Journey Times

Figure 8-51 below shows journey time routes across the study area as selected by KCC and SBC for the comparison of journey times along some key routes.

Figure 8-51 Journey Time Routes



Journey times have been obtained for the following routes:

- Route 1: A2 West (A2 Newington- A2 Bapchild);
- Route 2: A2 East (A2 Bapchild- A2 Boughton);
- Route 3: A249 (A249 Sheppey-A249/M20);
- Route 4: A249/Grovehurst-A2 Bapchild); (3 alternative routes as shown in Figure 8-51 Keys) and
- Route 5: A249/Grovehurst- Kent Science Park (2 alternative routes as shown in Figure 8-51 Keys).

Route 1: A2 West (A2 Newington- A2 Bapchild)

Table 8-10 provides total travel time (in seconds), total delay (in seconds), average speed (in kph) and total travel time (in seconds) for Route 1 in both directions. Green highlight indicates the quickest travel time and shortest delay, and red highlight indicates the slowest travel time and longest delay.

Table 8-10 Statistics for Route 1

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|------------------------------------|-----------------------|------------|------------|------------|------------|
| A2 EB- Newington to Bapchild | Total Travel Time (s) | 950.8 | 893.4 | 880.7 | 874.1 |
| | Total Delay (s) | 201.8 | 143.3 | 129.1 | 126.8 |
| | Average Speed (kph) | 23.7 | 25.2 | 25.6 | 25.8 |
| A2 WB- Bapchild to Newington | Total Travel Time (s) | 1071.0 | 997.3 | 1046.5 | 1007.6 |
| | Total Delay (s) | 312.0 | 236.4 | 280.8 | 240.9 |
| | Average Speed (kph) | 20.9 | 22.4 | 21.4 | 22.2 |

* Green highlight indicates quickest travel time/shortest delay and red highlight indicates slowest travel time/longest delay.

Overall, the quickest travel time along the A2 between Newington and Bapchild in both directions is in Scenario 4 (also Scenario 2 for the westbound direction), whilst the slowest travel time for this route is in Scenario 1.

Route 2: A2 East (A2 Bapchild- A2 Boughton)

Table 8-11 provides total travel time (in seconds), total delay (in seconds), average speed (in kph) and total travel time (in seconds) for Route 2 in both directions. Green highlight indicates the quickest travel time and shortest delay, and red highlight indicates the slowest travel time and longest delay.

Table 8-11 Statistics for Route 2

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|-----------------------------------|-----------------------|------------|------------|------------|------------|
| A2 EB- Bapchild to Boughton | Total Travel Time (s) | 1935.3 | 1097.1 | 1086.6 | 1094.9 |
| | Total Delay (s) | 1044.6 | 225.1 | 214.5 | 222.2 |
| | Average Speed (kph) | 24.1 | 43.1 | 43.5 | 43.1 |
| A2 WB- Boughton to Bapchild | Total Travel Time (s) | 1217.2 | 945.4 | 982.8 | 960.6 |
| | Total Delay (s) | 270.6 | 26.4 | 62.2 | 38.6 |
| | Average Speed (kph) | 38.4 | 49.2 | 47.3 | 48.4 |

* Green highlight indicates quickest travel time/shortest delay and red highlight indicates slowest travel time/longest delay.

The quickest travel time for the A2 eastbound from Bapchild to Boughton is in Scenario 3 and for the opposite direction (A2 from Boughton to Bapchild) is in Scenario 2.

Route 3: A249 (A249 Sheppey-A249/M20)

Table 8-12 provides total travel time (in seconds), total delay (in seconds), average speed (in kph) and total travel time (in seconds) for Route 3 in both directions. Green highlight indicates the quickest travel time and shortest delay, and red highlight indicates the slowest travel time and longest delay.

Table 8-12 Statistics for Route 3

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|------------------------|-----------------------|------------|------------|------------|------------|
| A249 SB-Sheppey to M20 | Total Travel Time (s) | 1663.8 | 1648.8 | 1572.0 | 1655.9 |
| | Total Delay (s) | 879.0 | 863.9 | 789.4 | 791.7 |
| | Average Speed (kph) | 47.8 | 48.2 | 50.5 | 50.1 |
| A249 NB-M20 to Sheppey | Total Travel Time (s) | 897.5 | 900.7 | 897.6 | 886.8 |
| | Total Delay (s) | 64.7 | 67.2 | 63.4 | 52.9 |
| | Average Speed (kph) | 89.4 | 89.1 | 89.4 | 90.5 |

* Green highlight indicates quickest travel time/shortest delay and red highlight indicates slowest travel time/longest delay.

For A249 southbound, the slowest travel time from Sheppey to M20 is in Scenario 1 and 4, and the quickest travel time is in Scenario 3. However, for A249 northbound from the M20 to Sheppey, the route is quickest in Scenario 4.

Route 4: A249/Grovehurst-A2 Bapchild)

Table 8-13 provides total travel time (in seconds), total delay (in seconds), average speed (in kph) and total travel time (in seconds) for Route 4 in both directions. Green highlight indicates the quickest travel time and shortest delay, and red highlight indicates the slowest travel time and longest delay.

Table 8-13 Statistics for Route 4

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|---|-----------------------|------------|------------|------------|------------|
| Via existing SEB (through Eurolink Industrial Estate) | Total Travel Time (s) | 1339.2 | 1253.1 | 1198.6 | 1105.4 |
| | Total Delay (s) | 538.0 | 431.4 | 381.7 | 287.3 |
| | Average Speed (kph) | 23.6 | 25.2 | 26.4 | 28.6 |
| Via existing NWB (through Eurolink Industrial Estate) | Total Travel Time (s) | 1233.8 | 1002.1 | 1013.0 | 941.6 |
| | Total Delay (s) | 421.8 | 185.8 | 196.0 | 127.1 |
| | Average Speed (kph) | 26.2 | 32.2 | 31.9 | 34.3 |
| Via Key Street SEB (A249;A2) | Total Travel Time (s) | 1598.2 | 1493.4 | 1476.7 | 1308.1 |
| | Total Delay (s) | 511.2 | 402.8 | 384.4 | 234.2 |
| | Average Speed (kph) | 26.5 | 28.4 | 28.7 | 33.3 |
| Via Key Street NWB (A249;A2) | Total Travel Time (s) | 1373.9 | 1305.3 | 1365.6 | 1332.4 |
| | Total Delay (s) | 322.8 | 249.4 | 304.0 | 268.7 |

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|--------------|-----------------------|------------|------------|------------|------------|
| | Average Speed (kph) | 30.6 | 32.2 | 30.8 | 31.6 |
| Via SNRR SEB | Total Travel Time (s) | | 756.1 | 730.3 | 694.1 |
| | Total Delay (s) | | 203.2 | 176.1 | 138.6 |
| | Average Speed (kph) | | 36.0 | 37.2 | 39.2 |
| Via SNRR NWB | Total Travel Time (s) | | 630.0 | 643.7 | 635.5 |
| | Total Delay (s) | | 49.6 | 62.2 | 54.4 |
| | Average Speed (kph) | | 44.2 | 43.3 | 43.9 |

* **Green** highlight indicates quickest travel time/shortest delay and **red** highlight indicates slowest travel time/longest delay.

Overall, the quickest travel time for route 4, between A249/Grovehurst Road and A2 Bapchild (in both directions) is in Scenario 4 (via Eurolink Industrial Estate, and via the SNRR). Scenario 1 has the slowest travel time along route 4 in both directions.

Route 5: A249/Grovehurst- Kent Science Park

Table 8-14 provides total travel time (in seconds), total delay (in seconds), average speed (in kph) and total travel time (in seconds) for Route 5 in both directions. Green highlight indicates the quickest travel time and shortest delay, and red highlight indicates the slowest travel time and longest delay.

Table 8-14 Statistics for Route 5

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|---|-----------------------|------------|------------|------------|------------|
| Via existing SB (Key Street, local roads) | Total Travel Time (s) | 1134.7 | 1070.9 | 1201.5 | 1131.1 |
| | Total Delay (s) | 332.8 | 266.6 | 355.7 | 325.6 |
| | Average Speed (kph) | 33.5 | 35.5 | 31.6 | 33.6 |
| Via existing NB (Key Street, local roads) | Total Travel Time (s) | 950.2 | 910.5 | 966.0 | 940.6 |
| | Total Delay (s) | 154.9 | 118.7 | 167.8 | 147.9 |
| | Average Speed (kph) | 39.9 | 41.6 | 39.2 | 40.3 |
| Via SNRR and SSRR SB | Total Travel Time (s) | | | | 999.4 |
| | Total Delay (s) | | | | 309.9 |
| | Average Speed (kph) | | | | 41.1 |
| Via SNRR and SSRR NB | Total Travel Time (s) | | | | 791.0 |
| | Total Delay (s) | | | | 56.4 |

| | | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|--|---------------------|------------|------------|------------|------------|
| | Average Speed (kph) | | | | 53.4 |

* **Green** highlight indicates quickest travel time/shortest delay and **red** highlight indicates slowest travel time/longest delay.

Scenario 2 provides the quickest route between A249/Grovehurst Road and Kent Science Park via existing roads. Scenario 4 provides journey time savings via the SNRR and SSRR.

9 Conclusions

This report describes how the future year traffic forecasts have been developed for the Local Plan scenarios to produce the forecast of travel demands for 2027 and 2037 for four different scenarios, and also a 2042 forecast for Scenario 4. For the forecasting matrices, the future car growths were calculated by spatially allocating development trips from the uncertainty log using trip rates from TRICs and split by purpose using TEMPRO 7.2 and LGV and HGV growth derived using DfT Road Traffic Forecast growth and trip rates from TRICS. The Local Plan scenarios have different housing allocations and transport interventions on top of the Bearing Fruits developments as agreed with Kent County Council and Swale Borough Council.

In summary, the modelling above was carried out in accordance with WebTAG and based on a validated base Swale Highway Model. The forecasts described above appear to show reasonable and plausible results that are in line with expectations about how the different housing and employment allocations for the Local Plan scenarios impact on the highway network.

Appendix A

Uncertainty Log Housing for Bearing Fruit Development

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|-----------|---|-----------------|-----------|-----------|
| 1 | SW/009 | Manor Farm | Sittingbourne | 50 | 50 |
| 2 | SW/040/73 | Land north of Quinton Road | Sittingbourne | 825 | 1185 |
| 3 | SW/057 | Land north of Key Street | Sittingbourne | 30 | 30 |
| 4 | SW/069 | Land at North East Sittingbourne | Sittingbourne | 106 | 106 |
| 5 | SW/703 | SW Sittingbourne | Sittingbourne | 300 | 540 |
| 6 | SW/076 | Lydbrook Close | Sittingbourne | 70 | 70 |
| 7 | SW/104 | Land at Great Grovehurst Farm | Sittingbourne | 120 | 120 |
| 8 | SW/220 | 152 Staplehurst Road | Sittingbourne | 15 | 75 |
| 9 | SW/312 | 35 High Street, Milton Regis | Sittingbourne | 10 | 10 |
| 10 | SW/337 | Crown Quay Lane, Sittingbourne | Sittingbourne | 400 | 650 |
| 11 | SW/342 | Swale House, East Street | Sittingbourne | 0 | 95 |
| 12 | SW/345 | Central Avenue | Sittingbourne | 15 | 121 |
| 13 | SW/347 | Fountain Street | Sittingbourne | 65 | 65 |
| 14 | SW/348 | Cockleshell Walk | Sittingbourne | 150 | 150 |
| 15 | SW/350 | Junction of East St and St Michael's Rd | Sittingbourne | 0 | 16 |
| 16 | SW/330 | Stones Farm, Sittingbourne | Sittingbourne | 350 | 550 |
| 17 | SW/374 | Orbital, Staplehurst Road | Sittingbourne | 60 | 60 |
| 18 | SW/343 | Land at The Bell Centre, Bell Road | Sittingbourne | 120 | 120 |
| 19 | SW/005 | The Foundry, Rushenden Road | Isle of Sheppey | 0 | 37 |
| 20 | SW/025 | Nil Desperandum, Alsager Avenue | Isle of Sheppey | 22 | 22 |
| 21 | SW/318 | Manor Road | Isle of Sheppey | 0 | 6 |
| 22 | SW/333 | West Street, Queenborough | Isle of Sheppey | 0 | 80 |
| 23 | SW/370 | South of Queenborough Creek | Isle of Sheppey | 180 | 380 |
| 24 | SW/335 | West of Rushenden Road | Isle of Sheppey | 480 | 480 |
| 25 | SW/998 | Former Istil Mill Site | Isle of Sheppey | 240 | 240 |
| 26 | SW/114 | Halfway Houses Primary School | Isle of Sheppey | 60 | 60 |
| 27 | SW/165 | Belgrave Road | Isle of Sheppey | 140 | 140 |
| 28 | SW/194 | Barton Hill Drive | Isle of Sheppey | 300 | 620 |
| 29 | SW/325 | Plover Road, Minster | Isle of Sheppey | 97 | 97 |
| 30 | SW/326 | Thistle Hill, Minster (Harps | Isle of Sheppey | 360 | 431 |
| 31 | SW/209 | Preston Skreens, Minster Road | Isle of Sheppey | 24 | 24 |
| 32 | SW/405 | Minster Academy | Isle of Sheppey | 20 | 20 |
| 33 | SW/705 | Jnc. Scocles Road and Elm Lane (The Slips) | Isle of Sheppey | 62 | 62 |
| 34 | SW/457 | Land at Chequers Road | Isle of Sheppey | 10 | 10 |
| 35 | SW/034 | Weston Works Brent Hill | Faversham | 40 | 40 |
| 36 | SW/037 | Land at Ham Road | Faversham | 35 | 35 |
| 37 | SW/191 | Faversham Police Station | Faversham | 12 | 12 |
| 38 | SW/334 | Land at Graveney Road | Faversham | 105 | 105 |
| 39 | SW/203 | Ordnance Wharf, Flood Lane | Faversham | 11 | 11 |
| 40 | SW/353 | Standard Quay / Fentimans Yard | Faversham | 12 | 12 |
| 41 | SW/212 | Bysingwood Primary School | Faversham | 5 | 15 |
| 42 | SW/096 | Land at Lady Dane Farm Phase II | Faversham | 60 | 60 |
| 43 | SW/356 | South East Coast Oil Services | Faversham | 16 | 16 |
| 44 | SW/359 | Standard House | Faversham | 5 | 5 |
| 45 | SW/424 | Swan Quay/Frank and Whittome Belvedere Road | Faversham | 10 | 10 |
| 46 | SW/997 | Oare Gravel Works | Faversham | 330 | 330 |
| 47 | SW/233 | Preston Fields, Salters Lane | Faversham | 245 | 250 |
| 48 | SW/163 | Bull Lane | Faversham | 16 | 16 |
| 49 | SW/415 | Land off Colonels Lane | Faversham | 15 | 15 |
| 50 | SW/417 | Land south of Colonels Lane | Faversham | 6 | 6 |

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|------------|--|-----------------|-----------|-----------|
| 51 | SW/407 | Land off High Street | Sittingbourne | 124 | 124 |
| 52 | SW/144 | Land east of Station Road | Sittingbourne | 107 | 107 |
| 53 | SW/420 | Land adj Mayfield, London Road | Sittingbourne | 13 | 13 |
| 54 | SW/443 | Land at Barrow Green Farm | Sittingbourne | 30 | 30 |
| 55 | SW/071 | Land at Frogna Lane, Teynham | Sittingbourne | 260 | 260 |
| 56 | SW/039 | Former Bus Depot, Shellness Road | Isle of Sheppey | 10 | 10 |
| 57 | SW/132 | North of High Street, Eastchurch | Isle of Sheppey | 15 | 15 |
| 58 | SW/120 | Iwade Fruit and Produce | Sittingbourne | 21 | 21 |
| 59 | SW/122 | Iwade Village Centre | Sittingbourne | 10 | 10 |
| 60 | SW/183 | Land south east of Iwade | Sittingbourne | 70 | 70 |
| 61 | SW/123 | Land east of Iwade | Sittingbourne | 300 | 440 |
| 62 | SW/117 | North of Iwade village | Sittingbourne | 62 | 62 |
| 63 | 15/504264 | Land at Perry Court, London Road, Faversham | Faversham | 310 | 310 |
| 64 | 15/500788 | Parcel F & G, East Hall Farm, Sittingbourne | Sittingbourne | 171 | 171 |
| 65 | 14/502729 | Ospringle Brickworks, Sumpter Way, Faversham | Faversham | 250 | 250 |
| 66 | 15/502912 | Milton Pipes, Cooks Lane, Sittingbourne | Sittingbourne | 242 | 242 |
| 67 | 14/0045 | Land east of Love Lane, Faversham | Faversham | 196 | 196 |
| 68 | 15/508025 | Power Station Road, Halfway | Isle of Sheppey | 142 | 142 |
| 69 | 11/0159 | Sittingbourne Mill & Wharf Sites, Sittingbourne | Sittingbourne | 132 | 132 |
| 70 | 13/1328 | Land at Watermark, Staplehurst Road, Sittingbourne | Sittingbourne | 29 | 29 |
| 71 | 15/505910 | Land adj Coleshall Farm, Ferry Road, Iwade | Sittingbourne | 11 | 11 |
| 72 | 13/1567 | Brogdale Place, Brogdale Road, Faversham | Faversham | 63 | 63 |
| 73 | 15/501109 | Four Gun Field, Otterham Quay Lane, Rainham | Other | 5 | 5 |
| 74 | 06/0900 | Phase 2, Kingsborough Manor, Eastchurch Rd, Eastchurch | Isle of Sheppey | 33 | 33 |
| 75 | 16/505060 | Almshouses South Road, Faversham | Faversham | 38 | 46 |
| 76 | 16/501883 | Prospect House, 4 Canterbury Road, Sittingbourne | Sittingbourne | 45 | 45 |
| 77 | 15/508661 | Ceres Court, Sittingbourne | Sittingbourne | 40 | 40 |
| 78 | 13/1522 | Land north of Lewis Close, Faversham | Faversham | 27 | 27 |
| 79 | 13/0568 | 153 London Road, Sittingbourne | Sittingbourne | 26 | 26 |
| 80 | 12/1311 | Scocles Farm, Scocles Road, Minster | Isle of Sheppey | 19 | 19 |
| 81 | 06/0750 | Phase 3, Land adj Thistle Hill Way, Minster | Isle of Sheppey | 13 | 13 |
| 82 | 15/501773 | Land to east of Charlotte Street, Sittingbourne | Sittingbourne | 18 | 18 |
| 83 | 06/0763 | Former Vic Working Men's Club, Broadway, Sheerness | Isle of Sheppey | 15 | 15 |
| 84 | 14/502582 | Freesia, Grovehurst Road, Sittingbourne | Sittingbourne | 15 | 15 |
| 85 | 15/510527 | Scocles Court, Scocles Road, Minster | Isle of Sheppey | 15 | 15 |
| 86 | 16/503162 | 109-111 Staplehurst Road, Sittingbourne | Sittingbourne | 18 | 18 |
| 87 | 14/0334 | Adj 105 Marine Parade, Sheerness | Isle of Sheppey | 14 | 14 |
| 88 | 14/0486 | Parsonage Farm, School Lane, Newington | Sittingbourne | 7 | 7 |
| 89 | 14/502847 | The Old Dairy, Halfway Road, Halfway | Isle of Sheppey | 14 | 14 |
| 90 | 15/505190 | Former Silver Sands Nursery, Staple Street, Faversham | Faversham | 14 | 14 |
| 91 | 11/0170 | Land R/O 51 High Street, Sittingbourne | Sittingbourne | 13 | 13 |
| 92 | 14/506519 | Land at Kent Terrace, Canterbury Lane, Rainham | Other | 13 | 13 |
| 93 | 16/503847 | 10-11 Market Street, Faversham | Faversham | 13 | 13 |
| 94 | 15/507804 | Land at Woodgate lane/Maidstone Rd, | Sittingbourne | 11 | 11 |
| 95 | 16/504273 | Land to Rear of 111-117 High Street Milton Regis | Sittingbourne | 9 | 9 |
| 96 | 16/504266 | Land at Lavender Ave, Minster | Isle of Sheppey | 9 | 9 |
| 97 | 16/507575 | Excelsior House, Ufton Lane, Sittingbourne | Sittingbourne | 9 | 9 |
| 98 | 16/3162806 | Land at Ellen's Place, High Street, Newington | Sittingbourne | 9 | 9 |
| 99 | 05/1197 | Boundary Close, Minster | Isle of Sheppey | 8 | 8 |
| 100 | 15/506945 | Land at School Lane, Bapchild | Sittingbourne | 8 | 8 |

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|------------|--|-----------------|-----------|-----------|
| 101 | 15/508514 | Coleshall Farm, Sheppey Way, Iwade | Sittingbourne | 8 | 8 |
| 102 | 16/507779 | Land at Lower Road, Teynham | Sittingbourne | 8 | 8 |
| 103 | 15/510309 | Borden Lodge, 2A Borden Lane, Sittingbourne | Sittingbourne | 7 | 7 |
| 104 | 15/510256 | 7 High Street, Minster | Isle of Sheppey | 7 | 7 |
| 105 | 16/505706 | 20-22 Ospringe Street, Ospringe | Faversham | 7 | 7 |
| 106 | 14/0092 | Land north of Royal Fountain Mews, West Street, Bluetown | Isle of Sheppey | 6 | 6 |
| 107 | 16/505790 | 23a Preston Street, Faversham | Faversham | 6 | 6 |
| 108 | 16/506097 | 21-25 Murston Road, Sittingbourne | Sittingbourne | 6 | 6 |
| 109 | 16/507966 | 5 High Street, Sittingbourne | Sittingbourne | 6 | 6 |
| 110 | 12/1483 | Land adj Community Hall, Shellness Road, Leysdown | Isle of Sheppey | 3 | 3 |
| 111 | 13/0909 | 97-101 Wards Hill Rd, Minster | Isle of Sheppey | 3 | 3 |
| 112 | 14/0482 | R/O 64 Middletune Avenue, Sittingbourne | Sittingbourne | 5 | 5 |
| 113 | 14/503628 | Whitehill Oast, Featherbed Lane, Selling | Faversham | 5 | 5 |
| 114 | 14/504984 | High Oak Hill, Newington | Sittingbourne | 5 | 5 |
| 115 | 15/501089 | Grove Road, Selling | Faversham | 5 | 5 |
| 116 | 15/3139546 | Land adjoining Driftwood Drive, Warden, Imperial | Isle of Sheppey | 5 | 5 |
| 117 | 16/507246 | Car Park adj 2 Park Rd, Sittingbourne | Sittingbourne | 5 | 5 |
| 118 | 16/505956 | 42-44 The Street, Bapchild | Sittingbourne | 5 | 5 |
| 119 | 17/500594 | Crescent House, Otterham Quay Lane, Upchurch | Other | 5 | 5 |
| 120 | 11/1071 | Harps Farm, Thistle Hill Way, Minster | Isle of Sheppey | 3 | 3 |
| 121 | 11/1100 | Thistle Hill Way, Minster | Isle of Sheppey | 3 | 3 |
| 122 | 14/500343 | Land off Boundary Close, Minster | Isle of Sheppey | 2 | 2 |
| 123 | 14/0184 | Cricket Meadow, Old Ferry Road, Iwade | Sittingbourne | 2 | 2 |
| 124 | 14/0445 | 9-11 High Street, Minster | Isle of Sheppey | 4 | 4 |
| 125 | 14/0100 | Stables Rear of 82- 84 School Lane, Lower Halstow | Sittingbourne | 4 | 4 |
| 126 | 15/503319 | 124 High Street, Sittingbourne | Sittingbourne | 4 | 4 |
| 127 | 15/509126 | R/O 44A Epps Road, Sittingbourne | Sittingbourne | 4 | 4 |
| 128 | 16/503575 | 35-37 High Street, Sittingbourne | Sittingbourne | 4 | 4 |
| 129 | 14/505691 | 62.64 & 66 High Street, Milton Regis | Sittingbourne | 4 | 4 |
| 130 | 15/508928 | Land adj Q/boro Social Club, North Road, Queenborough | Isle of Sheppey | 4 | 4 |
| 131 | 17/500381 | 48-50 Alma Street, Sheerness | Isle of Sheppey | 4 | 4 |
| 132 | 13/1250 | New Bungalow, Staplestreet | Faversham | 3 | 3 |
| 133 | 14/505074 | Halfway Egg Farm, Featherbed Lane, Iwade | Sittingbourne | 3 | 3 |
| 134 | 15/501776 | Splayfield Farm, Spade Lane, Hartlip | Sittingbourne | 3 | 3 |
| 135 | 15/501523 | 11a High Street, Eastchurch | Isle of Sheppey | 3 | 3 |
| 136 | 15/505477 | Black Barn Farm, Crockham Lane | Faversham | 3 | 3 |
| 137 | 16/504774 | 118 Manor Road, Queenborough | Isle of Sheppey | 3 | 3 |
| 138 | 16/501272 | R/O 60 Shortlands Road, Sittingbourne | Sittingbourne | 3 | 3 |
| 139 | 16/3150836 | Glenlodge, Queenborough Drive, Minster | Isle of Sheppey | 3 | 3 |
| 140 | 16/506761 | R/O 119 William Street, Addington Road, Sittingbourne | Sittingbourne | 3 | 3 |
| 141 | 16/506606 | Poultry Unit Applegate Farm Oad Street, Borden | Sittingbourne | 3 | 3 |
| 142 | 16/504605 | 13 Station Street, Sittingbourne | Sittingbourne | 3 | 3 |
| 143 | 14/505542 | 1A Saxon Road, Faversham | Faversham | 2 | 2 |
| 144 | 12/0902 | 1 & 2 Rhode Common Cottages, Dunkirk | Faversham | 2 | 2 |
| 145 | 13/0123 | 34 Goodnestone Road, Sittingbourne | Sittingbourne | 2 | 2 |
| 146 | 13/0304 | Oak Tree Farm Bottles Lane, Rodmersham | Sittingbourne | 2 | 2 |
| 147 | 14/0576 | 46 High Street, Eastchurch | Isle of Sheppey | 2 | 2 |
| 148 | 14/0329 | 82 London Road, Faversham | Faversham | 1 | 1 |
| 149 | 14/0479 | Greystone, Bannister Hill, Borden | Sittingbourne | 2 | 2 |
| 150 | 14/503697 | 64 Wards Hill Road, Minster | Isle of Sheppey | 2 | 2 |

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|------------|---|-----------------|-----------|-----------|
| 151 | 14/504285 | 119C High Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 152 | 14/501539 | 29a High Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 153 | 14/502346 | 23 Delamark Road, Sheerness | Isle of Sheppey | 2 | 2 |
| 154 | 15/502039 | 1 Kingsborough Cottages, Eastchurch | Isle of Sheppey | 2 | 2 |
| 155 | 15/503608 | 2 Charlotte Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 156 | 15/505135 | Stumble Inn, St Paul's Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 157 | 15/508323 | Lime House, Burley Road, Sittingbourne | Sittingbourne | 2 | 2 |
| 158 | 15/500290 | Pond Farm, Pond Farm Road, Borden | Sittingbourne | 2 | 2 |
| 159 | 15/508915 | Yaugher Farm, Meresborough Lane, Hartlip | Sittingbourne | 2 | 2 |
| 160 | 15/509100 | 33 Canterbury Road, Sittingbourne | Sittingbourne | 2 | 2 |
| 161 | 15/509795 | 44 East Street, Faversham | Faversham | 2 | 2 |
| 162 | 15/507209 | 21 East Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 163 | 15/504361 | 1a Western Avenue, Halfway | Isle of Sheppey | 2 | 2 |
| 164 | 16/502453 | 44 High Street, Sittingbourne | Sittingbourne | 2 | 2 |
| 165 | 16/503183 | 18 Wallbridge Lane, Upchurch | Other | 2 | 2 |
| 166 | 16/504042 | 9 Marine Parade, Sheerness | Isle of Sheppey | 2 | 2 |
| 167 | 16/503782 | The Tapster Inn, Seed Road, Newnham | Sittingbourne | 2 | 2 |
| 168 | 16/506265 | 99 London Road, Teynham | Sittingbourne | 2 | 2 |
| 169 | 16/502333 | Brambles, Old Billet Lane, Eastchurch | Isle of Sheppey | 2 | 2 |
| 170 | 16/506582 | R/O The Orchid, Cliff Drive, Warden | Isle of Sheppey | 2 | 2 |
| 171 | 15/510676 | Jack Russell Place, Halstow Lane, Halstow | Sittingbourne | 2 | 2 |
| 172 | 16/507737 | Adj Fox Court, London Rd, Teynham | Sittingbourne | 2 | 2 |
| 173 | 16/507988 | 118 West Street, Faversham | Faversham | 2 | 2 |
| 174 | 16/507201 | Adj 3&6 Brabazon Road, Eastchurch | Isle of Sheppey | 2 | 2 |
| 175 | 15/503681 | 177 Wards Hill Road, Minster | Isle of Sheppey | 2 | 2 |
| 176 | 16/507824 | 10 Park Road, Sittingbourne | Sittingbourne | 2 | 2 |
| 177 | 16/3165678 | 2 Kings Road, Minster | Isle of Sheppey | 2 | 2 |
| 178 | 16/508266 | Connetts Farm Plough Road Eastchurch | Isle of Sheppey | 2 | 2 |
| 179 | 16/507061 | Holywell Farm Holywell Lane Upchurch | Sittingbourne | 2 | 2 |
| 180 | 16/503223 | Bossenden Barn London Road Dunkirk | Faversham | 2 | 2 |
| 181 | 16/503169 | Building C Adjacent Kaine Farm House Breach Lane Upchurch | Sittingbourne | 2 | 2 |
| 182 | 12/1247 | Green Farm Barn, Stalisfield Green, Stalisfield | Other | 1 | 1 |
| 183 | 08/0458 | 85 London Rd, Sittingbourne | Sittingbourne | 1 | 1 |
| 184 | 09/0079 | Forge Orchard, Staple Street, Hernhill | Faversham | 1 | 1 |
| 185 | 09/1000 | Site at 131A Minster Road, Minster | Isle of Sheppey | 1 | 1 |
| 186 | 10/0517 | Adj 120 Scarborough Drive, Minster | Isle of Sheppey | 1 | 1 |
| 187 | 14/0386 | Jetty Cott, Jetty Road, Warden | Isle of Sheppey | 1 | 1 |
| 188 | 12/0657 | The Barn, Gibbens Farm, The Street, Bredgar | Sittingbourne | 1 | 1 |
| 189 | 14/0270 | Land adj NW Jetty Cottage, Warden | Isle of Sheppey | 1 | 1 |
| 190 | 13/0003 | 12 Park Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 191 | 13/1421 | Land adj 47 Homewood Avenue, Sittingbourne | Sittingbourne | 1 | 1 |
| 192 | 14/0106 | Land adj 157 Peregrine Drive, Sittingbourne | Sittingbourne | 1 | 1 |
| 193 | 13/0770 | Adj 4 Woodside Cottages, Dunkirk | Faversham | 1 | 1 |
| 194 | 14/0214 | 4 Broadway, Sheerness | Isle of Sheppey | 1 | 1 |
| 195 | 14/0265 | 15 Westerham Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 196 | 14/501143 | The Burrows, Swanley Farm, Warden Road, Eastchurch | Isle of Sheppey | 1 | 1 |
| 197 | 14/0528 | 87b North Street, Sittingbourne | Sittingbourne | 1 | 1 |
| 198 | 14/504785 | 2 Swaysdown game farm, School Lane, Iwade | Sittingbourne | 1 | 1 |
| 199 | 14/503853 | Rear of Seacrest, Cliff Drive, Warden | Isle of Sheppey | 1 | 1 |
| 200 | 15/501492 | 18 Bayford Road, Sittingbourne | Sittingbourne | 1 | 1 |

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|------------|---|-----------------|-----------|-----------|
| 201 | 15/502630 | Claxfield Road, Claxfield Farm, Teynham | Sittingbourne | 1 | 1 |
| 202 | 15/500382 | Aspley House, 204 London Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 203 | 15/503624 | St Christopher's Kingsdown Road, Lynsted | Sittingbourne | 1 | 1 |
| 204 | 15/501436 | Adj Kishanda, Saxon Avenue, Minster | Isle of Sheppey | 1 | 1 |
| 205 | 15/501604 | R/O 95 Borden Lane, Sittingbourne | Sittingbourne | 1 | 1 |
| 206 | 15/505163 | 50 Lynmouth Drive, Minster | Isle of Sheppey | 1 | 1 |
| 207 | 15/505023 | 1 Wheelwrights Cottages, Lewson Street, Norton | Sittingbourne | 1 | 1 |
| 208 | 15/502590 | R/O 67 Middletune Avenue, Sittingbourne | Sittingbourne | 1 | 1 |
| 209 | 15/504519 | Former Chapel, Sharsted Hill, Newnham | Sittingbourne | 1 | 1 |
| 210 | 15/503669 | Adj Cornish Mount, Sexburga Drive, Barrow Green, Close, Minster | Isle of Sheppey | 1 | 1 |
| 211 | 15/504298 | The Railway Tavern, Lower Road, Teynham | Sittingbourne | 1 | 1 |
| 212 | 15/501087 | 1 Chiddingfold Close Minster | Isle of Sheppey | 1 | 1 |
| 213 | 15/503542 | The Sondes Arms, Crouch Lane, Selling | Faversham | 1 | 1 |
| 214 | 15/506864 | 61 Park Drive, Sittingbourne | Sittingbourne | 1 | 1 |
| 215 | 15/506066 | 9a Kings Road, Minster | Isle of Sheppey | 1 | 1 |
| 216 | 14/505230 | Jack Russell Place, Halstow Lane, Upchurch | Sittingbourne | 1 | 1 |
| 217 | 15/506618 | Pool House, Almshouse Road, Throwley Forstal | Other | 1 | 1 |
| 218 | 15/504899 | The Granary, Place Farm, Yaughar Lane, Hartlip | Sittingbourne | 1 | 1 |
| 219 | 15/503072 | R/O 115 West Street, Faversham | Faversham | 1 | 1 |
| 220 | CN/14/0006 | Belldoon, Deerton Street, Teynham | Sittingbourne | 1 | 1 |
| 221 | 15/502593 | Adj 21 Canterbury Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 222 | 15/504457 | Orchard Barn, Chequers Hill, Doddington | Sittingbourne | 1 | 1 |
| 223 | 15/508792 | Agric building north of Brent Orchard Halstow Lane, Upchurch | Sittingbourne | 1 | 1 |
| 224 | 15/505764 | South of Brent Orchard, The Street, Upchurch | Sittingbourne | 1 | 1 |
| 225 | 15/509437 | Nichol Farm, Deerton Street, Teynham | Sittingbourne | 1 | 1 |
| 226 | 15/509408 | 35 Danes Drive, Bayview | Isle of Sheppey | 1 | 1 |
| 227 | 15/509429 | Adj The Firs, Dunkirk Road, Dunkirk | Faversham | 1 | 1 |
| 228 | 15/507671 | Store adj 24 Plantation Road, Faversham | Faversham | 1 | 1 |
| 229 | 15/509675 | Blossoms, Stickfast Lane, Bobbing | Sittingbourne | 1 | 1 |
| 230 | 15/509993 | 6 Trinity Road, Sheerness | Isle of Sheppey | 1 | 1 |
| 231 | 15/510631 | Bracken Brae, Jezzards lane, Dunkirk | Faversham | 1 | 1 |
| 232 | 14/504033 | R/O 34-44 St Paul's Street, Sittingbourne | Sittingbourne | 1 | 1 |
| 233 | 15/506323 | Flynn's Bee Farm, Elmley Road, Minster | Isle of Sheppey | 1 | 1 |
| 234 | 14/503662 | 71 South Road, Faversham | Faversham | 1 | 1 |
| 235 | 15/508597 | Keystun Ruins Barn Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 236 | 15/506115 | The Chimes Beach Approach, Warden | Isle of Sheppey | 1 | 1 |
| 237 | 16/501170 | Adj 55 Lynmouth Drive, Minster | Isle of Sheppey | 1 | 1 |
| 238 | 15/507311 | R/O 66 Park Drive (fronting Roseleigh Rd), Sittingbourne | Sittingbourne | 1 | 1 |
| 239 | 16/501511 | Raypaul, Knoll Way, Warden | Isle of Sheppey | 1 | 1 |
| 240 | 16/500283 | 83 Drake Avenue, Minster | Isle of Sheppey | 1 | 1 |
| 241 | 16/502155 | Amber Lodge, Lady Margaret Manor Rd, Doddington | Sittingbourne | 1 | 1 |
| 242 | 15/509875 | 35 Orchard Way, Eastchurch | Isle of Sheppey | 1 | 1 |
| 243 | 16/505246 | 48 Keycol Hill, Bobbing | Sittingbourne | 1 | 1 |
| 244 | 16/505218 | 6A East Street, Faversham | Faversham | 1 | 1 |
| 245 | 16/505154 | 92 Queensway, Sheerness | Isle of Sheppey | 1 | 1 |
| 246 | 15/508567 | Sweepstakes Farm, Lower Hartlip Road, Hartlip | Sittingbourne | 1 | 1 |
| 247 | 16/505404 | 91 London Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 248 | 16/503470 | The Old Office, Cleve Hill, Graveney | Faversham | 1 | 1 |
| 249 | 16/503569 | Gransmoore Elmley Road, Minster | Isle of Sheppey | 1 | 1 |
| 250 | 16/501325 | 21 The Street, Newnham | Sittingbourne | 1 | 1 |

| Site | Reference | Address | Area | 2017-2027 | 2017-2037 |
|------|----------------|---|-----------------|-----------|-----------|
| 251 | 16/500539 | The Old School, London Road, Dunkirk | Faversham | 1 | 1 |
| 252 | 16/504218 | Bradbourne, Bexon Lane, Bredgar | Sittingbourne | 1 | 1 |
| 253 | 16/502832 | 5 Trinity Road, Sheerness | Isle of Sheppey | 1 | 1 |
| 254 | 16/504793 | 79 Church Road, Sittingbourne | Sittingbourne | 1 | 1 |
| 255 | 16/505239 | Dorothy Caravan, Dunkirk Road, Dunkirk | Faversham | 1 | 1 |
| 256 | 16/505403 | Land btwn 15/19 Monins Road, Iwade | Sittingbourne | 1 | 1 |
| 257 | 16/506391 | 39 Lady Winter Drive, Minster | Isle of Sheppey | 1 | 1 |
| 258 | 16/505747 | 184-186 The Street, Boughton | Faversham | 1 | 1 |
| 259 | 16/505663 | 82 Church Lane, Newington | Sittingbourne | 1 | 1 |
| 260 | 16/500006 | 106 Scrapsgate Road, Minster | Isle of Sheppey | 1 | 1 |
| 261 | 16/501174 | 39a High Street, Sittingbourne | Sittingbourne | 1 | 1 |
| 262 | 16/504186 | Land opposite 117 Upper Brents, Faversham | Faversham | 1 | 1 |
| 263 | 16/502507 | 43 Scocles Road, Minster | Isle of Sheppey | 1 | 1 |
| 264 | 16/3154385 | 6 Sheerstone, Iwade | Sittingbourne | 1 | 1 |
| 265 | 16/505476 | 59 East Street, Sittingbourne | Sittingbourne | 1 | 1 |
| 266 | 16/507454 | Land btwn 79 & 81 Parsonage Chase, Minster | Isle of Sheppey | 1 | 1 |
| 267 | 16/5060368 | Land at Callaways Lane, Newington | Sittingbourne | 1 | 1 |
| 268 | 16/508495 | 90 Minster Road, Minster | Isle of Sheppey | 1 | 1 |
| 269 | 16/3142913 | 58 Wells Way, Faversham | Faversham | 1 | 1 |
| 270 | 15/3141300 | Macknade Garden Centre, Canterbury Road, Faversham | Faversham | 1 | 1 |
| 271 | 16/507265 | 120 & 126 The Broadway, Minster | Isle of Sheppey | 1 | 1 |
| 272 | 16/3161427 | Fruit store, Wrens Hill Farm, Wrens Hill | Faversham | 1 | 1 |
| 273 | 16/507146 | Cambridge Farm Cellar Hill, Lynsted | Sittingbourne | 1 | 1 |
| 274 | 16/508481 | Building B Breach farm Breach Lane, Upchurch | Sittingbourne | 1 | 1 |
| 275 | 16/508475 | Building A Breach farm Breach Lane, Upchurch | Sittingbourne | 1 | 1 |
| 276 | 16/508482 | Building C Breach farm Breach Lane, Upchurch | Sittingbourne | 1 | 1 |
| 277 | 16/506379 | Land South Of Little Rides Farm, Leysdown Road Leysdown | Isle of Sheppey | 1 | 1 |
| 278 | 16/502043 | Woodside Farm Barn South Bush Lane Rainham, | Other | 1 | 1 |
| 279 | 16/506314 | Sweepstakes Farm, Lower Hartlip Road, Hartlip | Sittingbourne | 1 | 1 |
| 280 | 14/506167/OUT | Floplast Ltd, Howt Green, Sheppey Way, Bobbing | Sittingbourne | 42 | 42 |
| 281 | 16/501552/FULL | Winterbourne Quarry, Boughton | Faversham | 4 | 4 |

Windfall 2023-2027: 550

Windfall 2023-2031: 9900

Additional 2017-2027: 1390

Additional 2017-2037: 8826

Uncertainty Log - Employment

| Type | Address | Net change | | | | | | | | | | | | | | | | |
|------|--|------------|----|-----|------|-----|------|------|-------|----------|-------|-------|-------------|----|----|-------|-----|------|
| | | A1 | A2 | A3 | A4 | A5 | B1a | B1b | B1c | Mixed B1 | B2 | B8 | Mixed B1-B8 | C1 | C2 | D1 | D2 | SG |
| C | Neatscourt marshes | 0 | 0 | 0 | 0 | 0 | 3875 | 0 | 0 | 0 | 0 | 57072 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Gallery Direct Castle Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3752 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Land west of A249 - Neatscourt Phase 2c | 482 | 0 | 482 | 0 | 0 | 0 | 0 | 0 | 697 | 697 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Plot 4e, Styles Close, Eurolink Bus, Park | 0 | 0 | 0 | 0 | 0 | 268 | 0 | 0 | 0 | 1365 | 682 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Plot 4G Styles Close | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1600 | 0 | 0 | 0 | 0 | 0 |
| C | Faversham Foundry, Seager Road | 0 | 0 | 0 | 0 | 0 | 1596 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Harts Holiday Park, Leysdown Road | 50 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 0 | 428 | 304 |
| C | Unit 2, Dolphin Park, Cremers Road, Eurolink | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 648 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Former Macknade Garden Centre, Canterbury Road | 0 | 0 | 0 | 525 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Unit 14 Craft Marsh Trading Estate, Gas Road | 0 | 0 | 0 | 0 | 0 | 513 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Land at Milton Pipes, Cooks Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -500 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Ospringe Brickworks, Sumpter Way | 0 | 0 | 0 | 0 | 0 | -84 | 0 | 0 | 0 | -1276 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Oak Tree Farm, Bottles Lane, Rodmersham | 0 | 0 | 0 | 0 | 0 | -69 | -272 | -272 | 0 | -340 | -1396 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Klondyke and Twyford Sites, Rushenden Rd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -7000 | 0 | 0 | 0 | 0 | 0 | 0 | -1915 | 0 | 0 |
| C | Plot 1a Neatscourt | 157 | 0 | 226 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Unit 8 Anchor Bus Park, Castle Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 338 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Rhode House service station | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 241 |
| C | Bowling Club, South Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 236 | 0 |
| C | 12 Market Place | 0 | 0 | 0 | 0 | 0 | 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 | 0 | 0 |
| C | Plots 4a-c Bingham Road, Eurolink | 0 | 0 | 0 | 0 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Milton Pipes, Gas Rd | 0 | 0 | 0 | 0 | 0 | 120 | 0 | 0 | 0 | -500 | 0 | 0 | 0 | 0 | 0 | 0 | 500 |
| C | Unit 7b Sitt Retail Park, Mill Way | 0 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 1 The Street (Fox and Goose) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| C | Unit A-b, London Road Trading Estate | 0 | 0 | 0 | 0 | 0 | -900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 913 | 0 |
| C | Queen Phillipa Hotel, High Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| C | Green Farm House, The Green | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| C | 5 Conqueror Court | 0 | 0 | 0 | 0 | 0 | -300 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 300 | 0 | 0 |
| C | Sondes Arms, Crouch Lane | 100 | 0 | 0 | -100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 42 High Street | 0 | 0 | 0 | 0 | 0 | -160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 0 | 0 |
| C | The Crown, 148 High Street | 0 | 0 | 0 | -140 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Radio station, Oak Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -55 | 0 | 0 | 0 | 0 | 0 | 55 |
| C | 9 Broadway | -50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| C | Clubland, 3 Clock Tower Crescent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | -100 |
| C | Unit 7 Grace Road, New Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -111 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| C | Trafalgar Court, West Street | 0 | 0 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -68 | 0 | 0 | 0 | 0 | 0 |
| C | 134 HighStreet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Bridge House, Bridge Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 | 0 | -130 |
| C | 73-74 Preston Street | -95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |

| Type | Address | Net change | | | | | | | | | | | | | | | | |
|---------------|---|--------------|-------------|------------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|-------------|-----------|------------|-------------|------------|-------------|
| | | A1 | A2 | A3 | A4 | A5 | B1a | B1b | B1c | Mixed B1 | B2 | B8 | Mixed B1-B8 | C1 | C2 | D1 | D2 | SG |
| C | Unit 1A Grove Park Shopping Centre, Gadby Road | -127 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 0 | 0 |
| C | 15a Dolphin Park, Upper Field Road | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1418 | 1300 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Frogna Farmhouse, Lower Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -18 | 0 | 0 | 0 |
| C | 7 High Street | -50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 1st floor 13 Cross Lane | -50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 59 East Street | -65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 3 Railway Terrace | 0 | 0 | 0 | 0 | -80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | The House rear to 1-2 Limes Place, Preston Street | 0 | 0 | 0 | 0 | 0 | -89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 74 High Street | 0 | 0 | 0 | 0 | 0 | -100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Unit 7a Sitt Retail Park, Mill Way | -105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 13 Station Street | 0 | 0 | 0 | 0 | 0 | -105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 118 West Street | 0 | -113 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 27 Broadway | -114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Railway Tavern, Lower Road | 0 | 0 | 0 | -140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Prospect House, 4 Canterbury Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -150 |
| C | 9 Marine Parade | 0 | -117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -56 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 62-66 High Street, Milton Regis | 0 | 0 | 0 | -178 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | The Tapster Inn, Seed Road | 0 | 0 | -180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 5 High Street | -220 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 4 Park Road | 0 | 0 | 0 | 0 | 0 | -244 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | 29 | -230 | 633 | 35 | 60 | 4681 | -272 | -7272 | 697 | -1583 | 61833 | 1532 | 10 | -18 | -190 | 764 | 1006 |
| EXP | Eurolink V / Land North of Swale Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14333 | 14333 | 14334 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Parcel 4, Thistle Hill | 1858 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Old Pumping Station, Brielle Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 700 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Transit Works, Power Station Rd | -3329 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Sheppey Rugby Club, Stuppelfield, Lower Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 | 0 |
| EXP | Preston School Room, Preston Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 0 | 0 |
| EXP | Land at Coleshall Farm, Sheppey Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 |
| EXP | The Rose Inn, 80 High Street | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Macknade Stores, Canterbury Road | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Mill House Residential Home, Salters Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| EXP | The Railway club, The Mall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | -100 | 0 |
| EXP | R/O 36 Albany Road | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | -37 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Unit P1, London Road Trading Estate, London Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -465 | 465 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | Blundells 35-37 High Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EXP | The Builders Yard, Horselees Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -100 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | -1451 | 0 | 0 | 51 | 0 | 37 | 0 | 0 | 14333 | 13868 | 15362 | 0 | 0 | 64 | 179 | 300 | 0 |

| Type | Address | Net change | | | | | | | | | | | | | | | | |
|------|--|------------|----|-----|----|----|-------|------|------|----------|--------|-------|-------------|-----|----|------|------|-----|
| | | A1 | A2 | A3 | A4 | A5 | B1a | B1b | B1c | Mixed B1 | B2 | B8 | Mixed B1-B8 | C1 | C2 | D1 | D2 | SG |
| NS | Sheerness Docks | 0 | 0 | 0 | 0 | 0 | 11500 | 0 | 0 | 0 | 125300 | 38650 | -123154 | 0 | 0 | 0 | 0 | 0 |
| NS | Land at Perry Court, London Road | 200 | 0 | 0 | 0 | 0 | 11875 | 3800 | 2850 | 0 | 0 | 0 | 0 | 100 | 60 | 0 | 0 | 0 |
| NS | Land east of Love Lane | 0 | 0 | 400 | 0 | 0 | 2000 | 0 | 5385 | 0 | 0 | 0 | 0 | 70 | 0 | 300 | 0 | 0 |
| NS | Land south of Kemsley Mill, Swale Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4000 | 4000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Gpharm, Unit 470, Kent Science Park | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4087 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land at East Hall Farm | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 875 | 0 | 875 | 1750 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land adj Coleshall Farm, Sheppey Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3000 | 0 | 0 | 0 | 0 | 0 |
| NS | Macknade Fine Foods, Selling Road | 236 | 0 | 625 | 0 | 0 | 0 | 0 | 0 | 0 | 624 | 231 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Sittingbourne Mill & Wharf Sites | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 250 | 1200 | 0 |
| NS | Brett Concrete, Ridham Dock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1265 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Duke of Kent site, Thanet Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1092 | 0 | 0 | 0 | 0 | 0 |
| NS | The Abbey School London Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1073 | 0 | 0 |
| NS | Antolin Interiors, Spade Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1050 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Marshalls Mono Ltd, Castle Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 625 | 190 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Cleve Hill Farm, Cleve Hill Road | 0 | 0 | 0 | 0 | 0 | 760 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Aspen Drive, Thistle Hill | 646 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Import Centre, Thomsett Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Sheppey Motors salvage, Rushenden Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 540 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Hengist Field, Pond Farm Road, Sittingbourne | 0 | 0 | 0 | 0 | 0 | 477 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Countryside Recycling Ridham Dock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 460 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land adj S Line Cargo, Argent Road | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 350 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Building 1, Standard Quay | 0 | 0 | 237 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 | 0 | 0 |
| NS | Adam, Rouilly, Castle Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 360 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 5 High Street | 220 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 44 East Street | 0 | 0 | 0 | 0 | 0 | 263 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Sainsbury's Store | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Gwelo Farm Barn, Bull Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 184 | 0 | 0 |
| NS | Land off Plover Road | 45 | 45 | 45 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Swale Motors Ltd, Crown Quay Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 178 |
| NS | 9-11 High Street | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 119c High Street | 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 14-16 Minster Road | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 27 Broadway | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Type | Address | Net change | | | | | | | | | | | | | | | | |
|------|--|------------|----|-----|----|----|------|-----|-----|----------|-------|------|-------------|----|----|-----|-----|----|
| | | A1 | A2 | A3 | A4 | A5 | B1a | B1b | B1c | Mixed B1 | B2 | B8 | Mixed B1-B8 | C1 | C2 | D1 | D2 | SG |
| NS | Magpie Playgroup, Boughton Primary School, School Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 | 0 | 0 |
| NS | Land adj. Thanet Way, Highstreet Road | 0 | 0 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land adjacent to Rushett Bungalow, Rushett Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Norton Cross Garage, London Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 124-126 High Street | -106 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Smart House Brielle Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Neatscourt (phase 1), Queenborough | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 0 | 0 | 0 |
| NS | 3 Railway Terrace | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 0 |
| NS | Macknade Manor, Canterbury Road | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Brickmakers Arms, Gas Road | 0 | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | -100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Clydesdale Manor, Warden Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Petrol Station, Morrisons, Mill Way | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 84 Holmeside Avenue | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 |
| NS | Pheasants Farm House, Sheppey Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Sports Ground Seager Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 |
| NS | 165 Minster Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| NS | Rodmersham Cricket Club, Bottles Lane | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -65 | 0 |
| NS | 5 Thorndale Business Park, Argent Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | -100 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Unit 4, Centre 2000 St Michaels Road | 0 | 0 | 0 | 0 | 0 | -659 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 659 | 0 |
| NS | Unit A London Road Trading Estate | 0 | 0 | 0 | 0 | 0 | -30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 |
| NS | 5 Market Street | -83 | 0 | 29 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Adj 1 Transit Works, Power Station Road | 0 | 0 | 0 | 0 | 0 | -72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| NS | Land at Regis Medical Centre, Saffron Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -80 | 0 | 80 |
| NS | Regis House, New Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1600 | 0 | 1600 | 0 | 0 | 0 | 0 | 0 |
| NS | Car park adj. 2 Park Road | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | r/o 115 West Street | 0 | 0 | 0 | 0 | 0 | -36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land adj social club, North Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -50 | 0 |
| NS | 5 Trinity Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -50 | 0 | 0 |
| NS | Land adj Percy Villa, North Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 6a East Street | 0 | 0 | 0 | 0 | 0 | -66 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 6A East Street | 0 | 0 | 0 | 0 | 0 | -85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Type | Address | Net change | | | | | | | | | | | | | | | | | |
|---------------|---|------------|-------------|-------------|-------------|-----------|--------------|-------------|-------------|--------------|---------------|--------------|----------------|------------|-----------|-------------|-------------|--------------|----------|
| | | A1 | A2 | A3 | A4 | A5 | B1a | B1b | B1c | Mixed B1 | B2 | B8 | Mixed B1-B8 | C1 | C2 | D1 | D2 | SG | |
| NS | 99 London Road | 0 | 0 | 0 | 0 | 0 | -90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 6 Trinity Road | 0 | -95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Sweepstakes Farm, Lower Hartlip Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Land North East of Vicarage Farm, The Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 10 Park Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -135 | 0 | 0 | 0 |
| NS | r/o 60 Shortlands Road | 0 | 0 | 0 | 0 | 0 | -136 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 48-50 Alma Street | -195 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 23a Preston Street | 0 | -242 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | White Horse, 99 West Street | 0 | 0 | 0 | -259 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 33-37 High Street | -282 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Crescent House, Otterham Quay Lane | 0 | 0 | 0 | 0 | 0 | -340 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 35-37 High Street | -400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 42-44 The Street | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -402 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | 4 Bell Road | -410 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Ospringe Brickworks, Sumpter Way | 0 | 0 | 0 | 0 | 0 | -84 | 0 | 0 | 0 | -446 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | Crescent House, Gills Terrace, Otterham Quay Lane | 0 | 0 | 0 | 0 | 0 | -700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NS | High Oak Hill | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | 382 | -212 | 1812 | -259 | 45 | 25028 | 3800 | 8747 | 4150 | 134625 | 43148 | -117462 | 250 | 65 | 1939 | 1762 | 330 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SS | Little Oyster Residential Home, Seaside Avenue | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 |
| TOTALS | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 |
| UC | Eurolink V / Land North of Swale Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15500 | 15500 | 15600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UC | Sittingbourne Community College, Swanstree Avenue | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2322 | 0 | 0 | 0 |
| UC | Land at Castle Road, Eurolink | 0 | 0 | 0 | 0 | 0 | 219 | 219 | 219 | 0 | 656 | 656 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UC | Boughton Golf Course, Brickfield Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 902 | 0 | 0 |
| UC | Ex steelworks, Brielle Way | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -54000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30450 |
| UC | Fav Football Club, Salters Lane | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 484 | 0 | 0 |
| UC | Lloyds Wharf, The Wall | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 | 0 |
| UC | The White House | 0 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UC | Three Sisters, Otterham Key | 41 | 0 | 15 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UC | The Laundrette Wing Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| UC | Frogna Farmhouse, Lower Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| UC | Prince of Waterloo, 428 Minster Rd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| UC | The Old School, London Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -200 | 0 | 0 | 0 |
| UC | Excelsior House, Ufton Lane | 0 | 126 | 0 | 0 | 0 | -520 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | | 41 | 126 | 161 | 0 | 0 | -301 | 219 | 260 | 15500 | -37844 | 16256 | 0 | 52 | 0 | 2322 | 1386 | 30467 | |

Appendix B

Housing Car trip rates by area

| iv) Isle of Sheppey | | | | | | | | | | | | |
|---------------------|-------|--------|-------|-------------|-------|--------|-------|-------------|-------------|-------------|-------------|--------------|
| | HBW O | HBEB O | HBO O | Total O | HBW D | HBEB D | HBO D | Total D | HBW OD | HBEB OD | HBO OD | Total OD |
| AM | 0.33 | 0.04 | 0.12 | 0.49 | 0.02 | 0.00 | 0.04 | 0.06 | 0.35 | 0.04 | 0.16 | 0.552 |
| IP | 0.02 | 0.01 | 0.11 | 0.14 | 0.03 | 0.01 | 0.11 | 0.14 | 0.05 | 0.01 | 0.22 | 0.282 |
| PM | 0.02 | 0.00 | 0.11 | 0.13 | 0.18 | 0.02 | 0.15 | 0.36 | 0.20 | 0.03 | 0.26 | 0.492 |

| v) Central Sittingbourne | | | | | | | | | | | | |
|--------------------------|-------|--------|-------|-------------|-------|--------|-------|-------------|--------|---------|--------|--------------|
| | HBW O | HBEB O | HBO O | Total O | HBW D | HBEB D | HBO D | Total D | HBW OD | HBEB OD | HBO OD | Total OD |
| AM | 0.27 | 0.03 | 0.10 | 0.40 | 0.01 | 0.00 | 0.03 | 0.05 | 0.28 | 0.04 | 0.13 | 0.445 |
| IP | 0.02 | 0.01 | 0.09 | 0.11 | 0.02 | 0.01 | 0.09 | 0.11 | 0.04 | 0.01 | 0.18 | 0.227 |
| PM | 0.02 | 0.00 | 0.09 | 0.11 | 0.15 | 0.02 | 0.12 | 0.29 | 0.17 | 0.02 | 0.21 | 0.400 |

| vi) Outer Sittingbourne | | | | | | | | | | | | |
|-------------------------|-------|--------|-------|-------------|-------|--------|-------|-------------|--------|---------|--------|--------------|
| | HBW O | HBEB O | HBO O | Total O | HBW D | HBEB D | HBO D | Total D | HBW OD | HBEB OD | HBO OD | Total OD |
| AM | 0.31 | 0.04 | 0.12 | 0.47 | 0.02 | 0.00 | 0.04 | 0.05 | 0.33 | 0.04 | 0.15 | 0.524 |
| IP | 0.02 | 0.01 | 0.12 | 0.15 | 0.03 | 0.01 | 0.12 | 0.15 | 0.05 | 0.01 | 0.24 | 0.303 |
| PM | 0.02 | 0.00 | 0.12 | 0.15 | 0.21 | 0.03 | 0.18 | 0.42 | 0.24 | 0.03 | 0.30 | 0.572 |

| vii) Central Faversham | | | | | | | | | | | | |
|------------------------|-------|--------|-------|-------------|-------|--------|-------|-------------|--------|---------|--------|--------------|
| | HBW O | HBEB O | HBO O | Total O | HBW D | HBEB D | HBO D | Total D | HBW OD | HBEB OD | HBO OD | Total OD |
| AM | 0.25 | 0.03 | 0.10 | 0.38 | 0.01 | 0.00 | 0.03 | 0.04 | 0.27 | 0.03 | 0.12 | 0.423 |
| IP | 0.02 | 0.01 | 0.10 | 0.12 | 0.02 | 0.01 | 0.09 | 0.12 | 0.04 | 0.01 | 0.19 | 0.245 |
| PM | 0.02 | 0.00 | 0.10 | 0.12 | 0.17 | 0.02 | 0.14 | 0.33 | 0.19 | 0.03 | 0.24 | 0.448 |

| viii) Outer Faversham | | | | | | | | | | | | |
|-----------------------|-------|--------|-------|-------------|-------|--------|-------|-------------|--------|---------|--------|--------------|
| | HBW O | HBEB O | HBO O | Total O | HBW D | HBEB D | HBO D | Total D | HBW OD | HBEB OD | HBO OD | Total OD |
| AM | 0.35 | 0.04 | 0.13 | 0.52 | 0.02 | 0.00 | 0.04 | 0.06 | 0.37 | 0.05 | 0.17 | 0.582 |
| IP | 0.02 | 0.01 | 0.14 | 0.17 | 0.03 | 0.01 | 0.13 | 0.17 | 0.06 | 0.02 | 0.27 | 0.337 |
| PM | 0.03 | 0.01 | 0.14 | 0.17 | 0.24 | 0.03 | 0.20 | 0.46 | 0.26 | 0.04 | 0.33 | 0.634 |

LGV peak hour trip rates

| Land Use | Description | AM | | PM | |
|----------|-------------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | Arrival (destination) | Departure (origin) | Arrival (destination) | Departure (origin) |
| A1 | Food retail | 0.211 | 0.205 | 0.152 | 0.173 |
| A3 | Rest/café | 0.000 | 0.000 | 0.111 | 0.095 |
| A4 | Drinking | 0.000 | 0.000 | 0.342 | 0.244 |
| B1 | Business | 0.036 | 0.029 | 0.014 | 0.020 |
| B2 | General industry | 0.058 | 0.053 | 0.027 | 0.034 |
| B8 | Storage or distribution | 0.021 | 0.041 | 0.037 | 0.032 |
| C1 | hotels | 0.026 | 0.043 | 0.031 | 0.017 |
| C2 | Residential institution | 0.000 | 0.000 | 0.000 | 0.000 |
| C3 | Residential | 0.000 | 0.000 | 0.000 | 0.000 |
| D1 | School | 0.037 | 0.034 | 0.013 | 0.017 |
| D2 | Leisure | 0.906 | 0.715 | 0.880 | 0.695 |
| SG | Sui Generis | 0.000 | 0.000 | 0.000 | 0.000 |

HGV peak hour trip rates

| Land Use | Description | AM | | PM | |
|----------|-------------------------|-----------------------|--------------------|-----------------------|--------------------|
| | | Arrival (destination) | Departure (origin) | Arrival (destination) | Departure (origin) |
| A1 | Food retail | 0.032 | 0.034 | 0.017 | 0.019 |
| A3 | Rest/café | 0.000 | 0.000 | 0.030 | 0.030 |
| A4 | Drinking | 0.000 | 0.000 | 0.008 | 0.000 |
| B1 | Business | 0.008 | 0.007 | 0.002 | 0.002 |
| B2 | General industry | 0.021 | 0.023 | 0.010 | 0.010 |
| B8 | Storage or distribution | 0.029 | 0.039 | 0.033 | 0.023 |
| C1 | hotels | 0.012 | 0.011 | 0.001 | 0.001 |
| C2 | residential institution | 0.005 | 0.005 | 0.000 | 0.001 |
| C3 | Residential | 0.000 | 0.000 | 0.000 | 0.000 |
| D1 | School | 0.006 | 0.006 | 0.000 | 0.001 |
| D2 | Leisure | 0.245 | 0.206 | 0.029 | 0.051 |
| SG | Sui Generis | 0.017 | 0.019 | 0.002 | 0.002 |

Appendix C

Scenario Network Performance Statistics

2027AM

| | | Base | DM1 | DS2 | DS3 | DS4 |
|----------------------------------|----------------------------|---------|---------|---------|---------|---------|
| Transient queues (PCU hours) | Simulation | 910 | 1297 | 1281 | 1127 | 1297 |
| | Buffer | 47 | 164 | 160 | 164 | 164 |
| | Total | 957 | 1461 | 1440 | 1291 | 1461 |
| Over-capacity queues (PCU hours) | Simulation | 255 | 1067 | 1007 | 801 | 1067 |
| | Buffer | 0 | 0 | 0 | 0 | 0 |
| | Total | 255 | 1067 | 1007 | 801 | 1067 |
| Link cruise time (PCU hours) | Simulation | 8329 | 10512 | 10451 | 10362 | 10512 |
| | Buffer | 41104 | 47039 | 47016 | 46980 | 47039 |
| | Buffer centroid connectors | 706 | 794 | 794 | 794 | 794 |
| | Total | 50138 | 58346 | 58261 | 58136 | 58346 |
| Total travel time (PCU hours) | Simulation | 9493 | 12876 | 12739 | 12290 | 12876 |
| | Buffer | 41151 | 47203 | 47176 | 47144 | 47203 |
| | Buffer centroid connectors | 706 | 794 | 794 | 794 | 794 |
| | Total | 51350 | 60874 | 60709 | 60228 | 60874 |
| Travel distance (PCU KM) | Simulation | 632270 | 764413 | 760646 | 763162 | 764413 |
| | Buffer | 2639620 | 2982004 | 2980427 | 2978682 | 2982004 |
| | Buffer centroid connectors | 31896 | 35877 | 35864 | 35870 | 35877 |
| | Total | 3303787 | 3782294 | 3776936 | 3777713 | 3782294 |
| Average Speed (kph) | Simulation | 66.6 | 59 | 60 | 62 | 59 |
| | Buffer | 64.1 | 63 | 63 | 63 | 63 |
| | Buffer centroid connectors | 45.2 | 45 | 45 | 45 | 45 |
| | Total | 64.3 | 62 | 62 | 63 | 62 |
| Total trips loaded (PCUs) | | 204292 | 232019 | 231823 | 231963 | 232019 |

2027PM

| | | Base | DM1 | DS2 | DS3 | DS4 |
|----------------------------------|----------------------------|---------|---------|---------|---------|---------|
| Transient queues (PCU hours) | Simulation | 924 | 1335 | 1289 | 1278 | 1196 |
| | Buffer | 65 | 82 | 82 | 81 | 88 |
| | Total | 989 | 1418 | 1371 | 1360 | 1285 |
| Over-capacity queues (PCU hours) | Simulation | 192 | 636 | 559 | 536 | 370 |
| | Buffer | 0 | 0 | 0 | 0 | 0 |
| | Total | 192 | 636 | 559 | 536 | 370 |
| Link cruise time (PCU hours) | Simulation | 8159 | 10155 | 10133 | 10105 | 10048 |
| | Buffer | 41546 | 47194 | 47197 | 47163 | 47140 |
| | Buffer centroid connectors | 683 | 764 | 764 | 764 | 764 |
| | Total | 50389 | 58113 | 58094 | 58032 | 57952 |
| Total travel time (PCU hours) | Simulation | 9274 | 12126 | 11980 | 11919 | 11614 |
| | Buffer | 41611 | 47276 | 47279 | 47245 | 47229 |
| | Buffer centroid connectors | 683 | 764 | 764 | 764 | 764 |
| | Total | 51569 | 60166 | 60023 | 59928 | 59607 |
| Travel distance (PCU KM) | Simulation | 619286 | 742864 | 740680 | 738852 | 740577 |
| | Buffer | 2635892 | 2948862 | 2948577 | 2946663 | 2946854 |
| | Buffer centroid connectors | 30855 | 34528 | 34528 | 34521 | 34524 |
| | Total | 3286033 | 3726254 | 3723785 | 3720035 | 3721956 |
| Average Speed (kph) | Simulation | 66.8 | 61 | 62 | 62 | 64 |
| | Buffer | 63.3 | 62 | 62 | 62 | 62 |
| | Buffer centroid connectors | 45.2 | 45 | 45 | 45 | 45 |
| | Total | 63.7 | 62 | 62 | 62 | 62 |
| Total trips loaded (PCUs) | | 202190 | 228044 | 228044 | 227877 | 227996 |

2037AM

| | | Base | DM1 | DS2 | DS3 | DS4 |
|----------------------------------|----------------------------|---------|---------|---------|---------|---------|
| Transient queues (PCU hours) | Simulation | 910 | 2261 | 1983 | 1863 | 1868 |
| | Buffer | 47 | 404 | 427 | 415 | 421 |
| | Total | 957 | 2665 | 2409 | 2278 | 2289 |
| Over-capacity queues (PCU hours) | Simulation | 255 | 4848 | 4436 | 3909 | 2664 |
| | Buffer | 0 | 134 | 102 | 39 | 150 |
| | Total | 255 | 4982 | 4538 | 3947 | 2814 |
| Link cruise time (PCU hours) | Simulation | 8329 | 12639 | 12494 | 12467 | 12236 |
| | Buffer | 41104 | 52330 | 52343 | 52378 | 52315 |
| | Buffer centroid connectors | 706 | 867 | 867 | 867 | 866 |
| | Total | 50138 | 65836 | 65703 | 65712 | 65417 |
| Total travel time (PCU hours) | Simulation | 9493 | 19748 | 18913 | 18239 | 16767 |
| | Buffer | 41151 | 52867 | 52871 | 52832 | 52887 |
| | Buffer centroid connectors | 706 | 867 | 867 | 867 | 866 |
| | Total | 51350 | 73482 | 72650 | 71937 | 70520 |
| Travel distance (PCU KM) | Simulation | 632270 | 895604 | 883731 | 881971 | 874677 |
| | Buffer | 2639620 | 3279951 | 3279773 | 3281830 | 3277060 |
| | Buffer centroid connectors | 31896 | 39150 | 39151 | 39160 | 39142 |
| | Total | 3303787 | 4214705 | 4202655 | 4202961 | 4190879 |
| Average Speed (kph) | Simulation | 66.6 | 45 | 47 | 48 | 52 |
| | Buffer | 64.1 | 62 | 62 | 62 | 62 |
| | Buffer centroid connectors | 45.2 | 45 | 45 | 45 | 45 |
| | Total | 64.3 | 57 | 58 | 58 | 59 |
| Total trips loaded (PCUs) | | 204292 | 255074 | 255074 | 255184 | 255200 |

2037PM

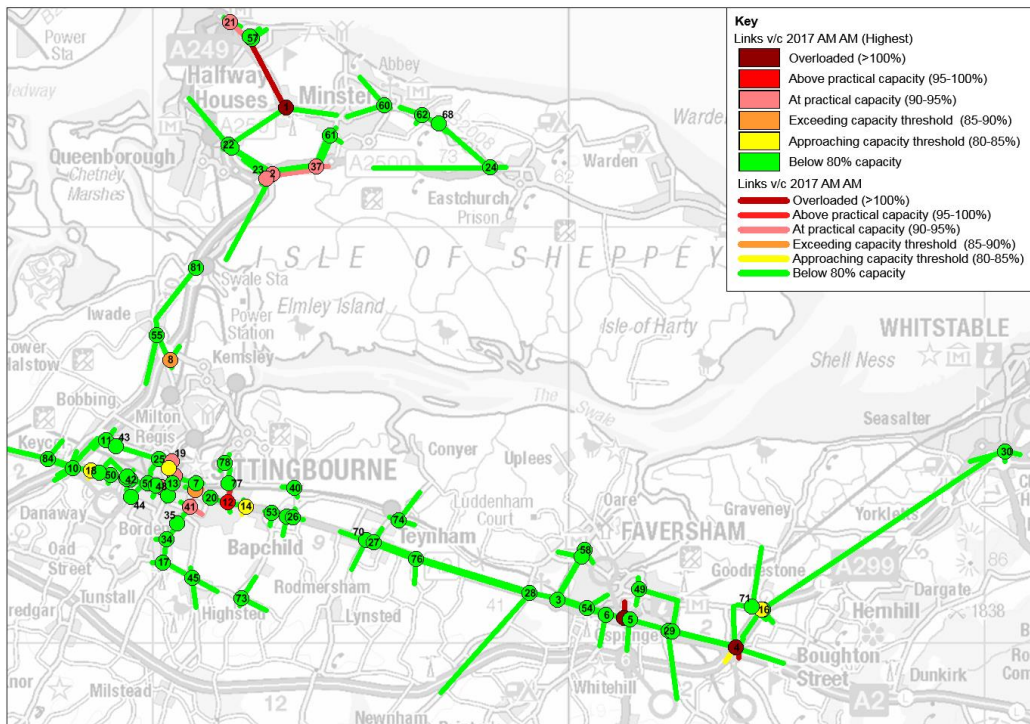
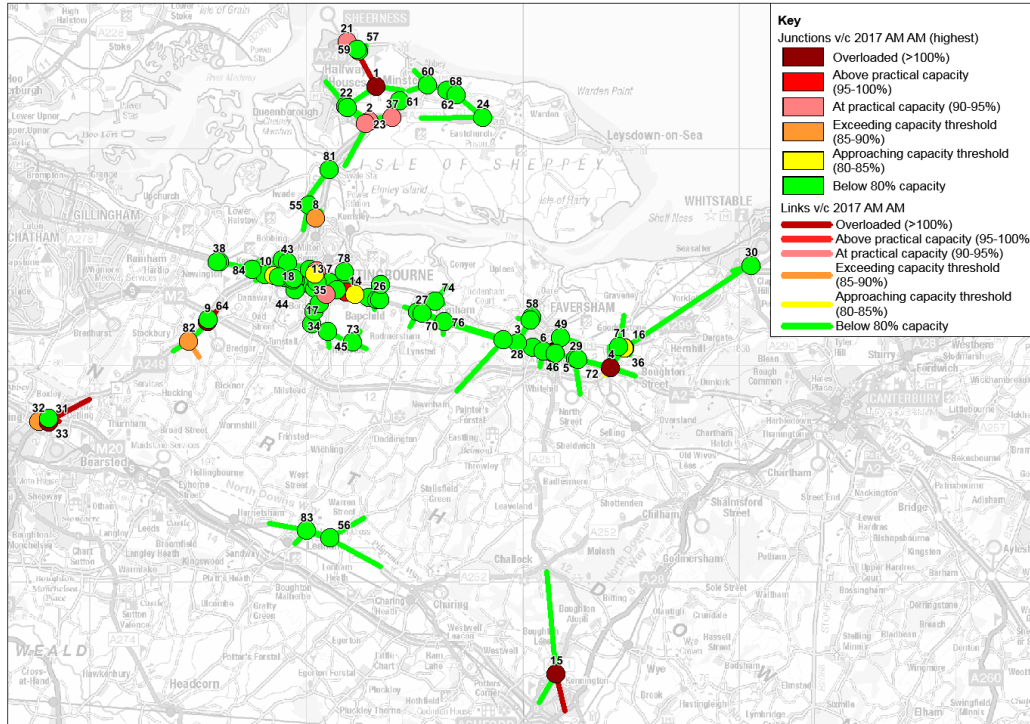
| | | Base | DM1 | DS2 | DS3 | DS4 |
|----------------------------------|----------------------------|---------|---------|---------|---------|---------|
| Transient queues (PCU hours) | Simulation | 924 | 1975 | 1918 | 1763 | 1680 |
| | Buffer | 65 | 154 | 163 | 170 | 173 |
| | Total | 989 | 2129 | 2080 | 1933 | 1854 |
| Over-capacity queues (PCU hours) | Simulation | 192 | 2324 | 2136 | 2046 | 1168 |
| | Buffer | 0 | 109 | 109 | 110 | 112 |
| | Total | 192 | 2433 | 2245 | 2156 | 1280 |
| Link cruise time (PCU hours) | Simulation | 8159 | 11892 | 11887 | 11771 | 11691 |
| | Buffer | 41546 | 52452 | 52404 | 52425 | 52263 |
| | Buffer centroid connectors | 683 | 831 | 831 | 832 | 832 |
| | Total | 50389 | 65175 | 65122 | 65028 | 64786 |
| Total travel time (PCU hours) | Simulation | 9274 | 16191 | 15941 | 15580 | 14540 |
| | Buffer | 41611 | 52714 | 52675 | 52705 | 52548 |
| | Buffer centroid connectors | 683 | 831 | 831 | 832 | 832 |
| | Total | 51569 | 69736 | 69447 | 69116 | 67919 |
| Travel distance (PCU KM) | Simulation | 619286 | 853940 | 851981 | 842435 | 839799 |
| | Buffer | 2635892 | 3242342 | 3238102 | 3237126 | 3228442 |
| | Buffer centroid connectors | 30855 | 37559 | 37561 | 37568 | 37566 |
| | Total | 3286033 | 4133841 | 4127643 | 4117129 | 4105807 |
| Average Speed (kph) | Simulation | 66.8 | 53 | 53 | 54 | 58 |
| | Buffer | 63.3 | 62 | 62 | 61 | 61 |
| | Buffer centroid connectors | 45.2 | 45 | 45 | 45 | 45 |
| | Total | 63.7 | 59 | 59 | 60 | 61 |
| Total trips loaded (PCUs) | | 202190 | 249887 | 249887 | 249970 | 250023 |

2042 AM and PM

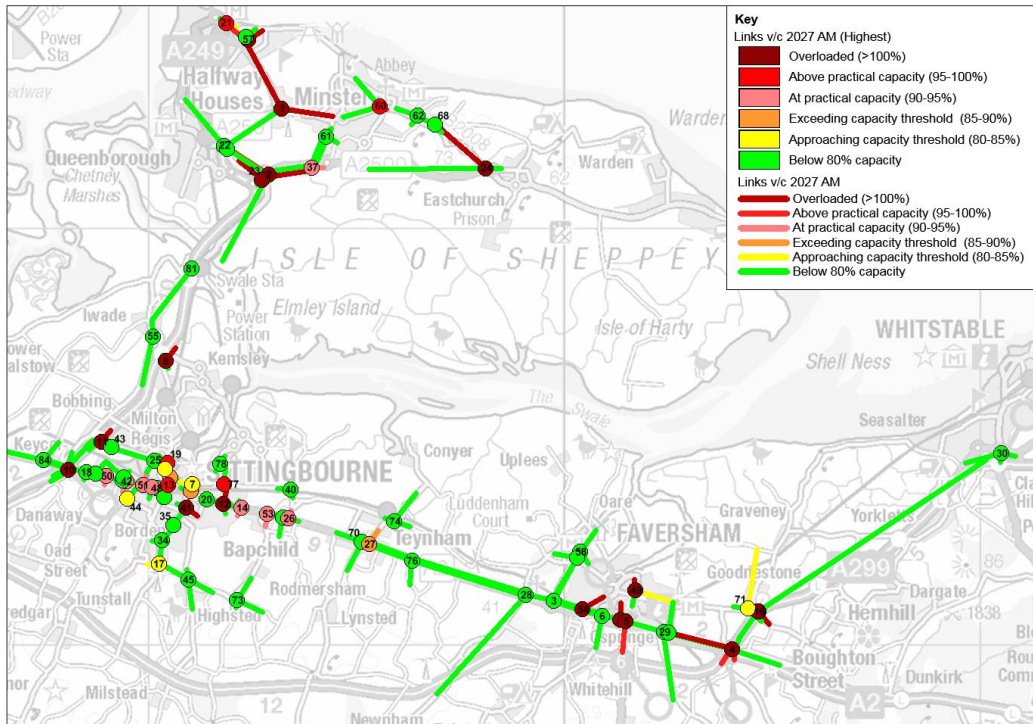
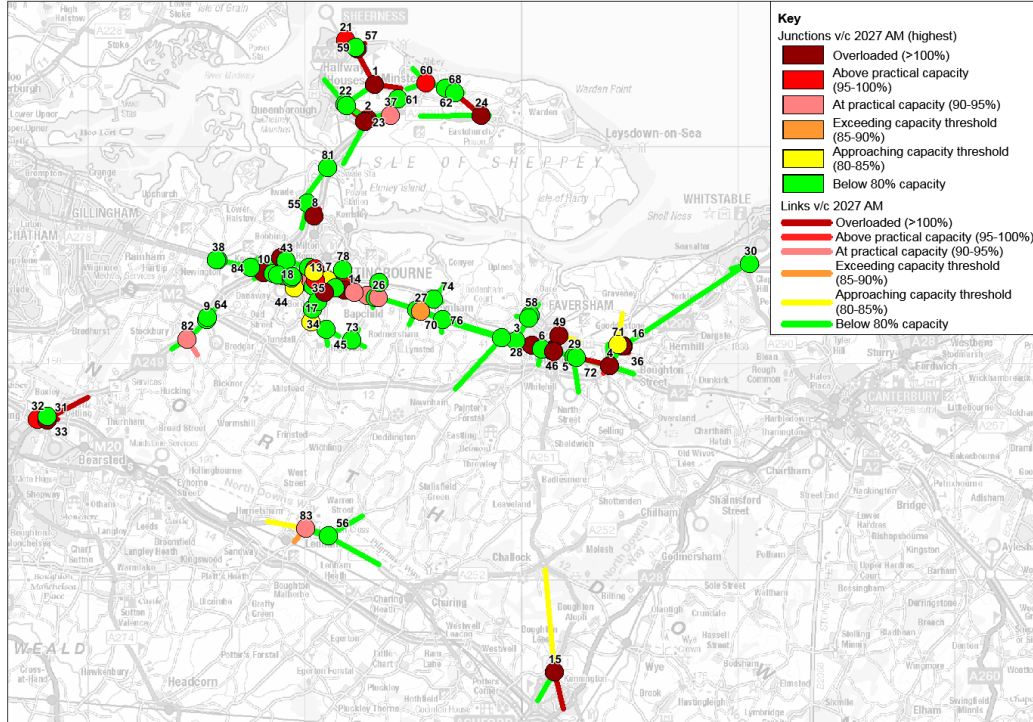
| | | Base AM | DS4 AM | Base PM | DS4 PM |
|----------------------------------|----------------------------|---------|---------|---------|---------|
| Transient queues (PCU hours) | Simulation | 910 | 2217 | 924 | 1983 |
| | Buffer | 47 | 480 | 65 | 427 |
| | Total | 957 | 2697 | 989 | 2409 |
| Over-capacity queues (PCU hours) | Simulation | 255 | 3568 | 192 | 4436 |
| | Buffer | 0 | 492 | 0 | 102 |
| | Total | 255 | 4060 | 192 | 4538 |
| Link cruise time (PCU hours) | Simulation | 8329 | 12859 | 8159 | 12494 |
| | Buffer | 41104 | 54540 | 41546 | 52343 |
| | Buffer centroid connectors | 706 | 901 | 683 | 867 |
| | Total | 50138 | 68301 | 50389 | 65703 |
| Total travel time (PCU hours) | Simulation | 9493 | 18644 | 9274 | 18913 |
| | Buffer | 41151 | 55513 | 41611 | 52871 |
| | Buffer centroid connectors | 706 | 901 | 683 | 867 |
| | Total | 51350 | 75058 | 51569 | 72650 |
| Travel distance (PCU KM) | Simulation | 632270 | 913753 | 619286 | 883731 |
| | Buffer | 2639620 | 3421275 | 2635892 | 3279773 |
| | Buffer centroid connectors | 31896 | 40701 | 30855 | 39151 |
| | Total | 3303787 | 4375728 | 3286033 | 4202655 |
| Average Speed (kph) | Simulation | 66.6 | 49 | 66.8 | 47 |
| | Buffer | 64.1 | 62 | 63.3 | 62 |
| | Buffer centroid connectors | 45.2 | 45 | 45.2 | 45 |
| | Total | 64.3 | 58 | 63.7 | 58 |
| Total trips loaded (PCUs) | | 204292 | 265528 | 202190 | 255074 |

Appendix D

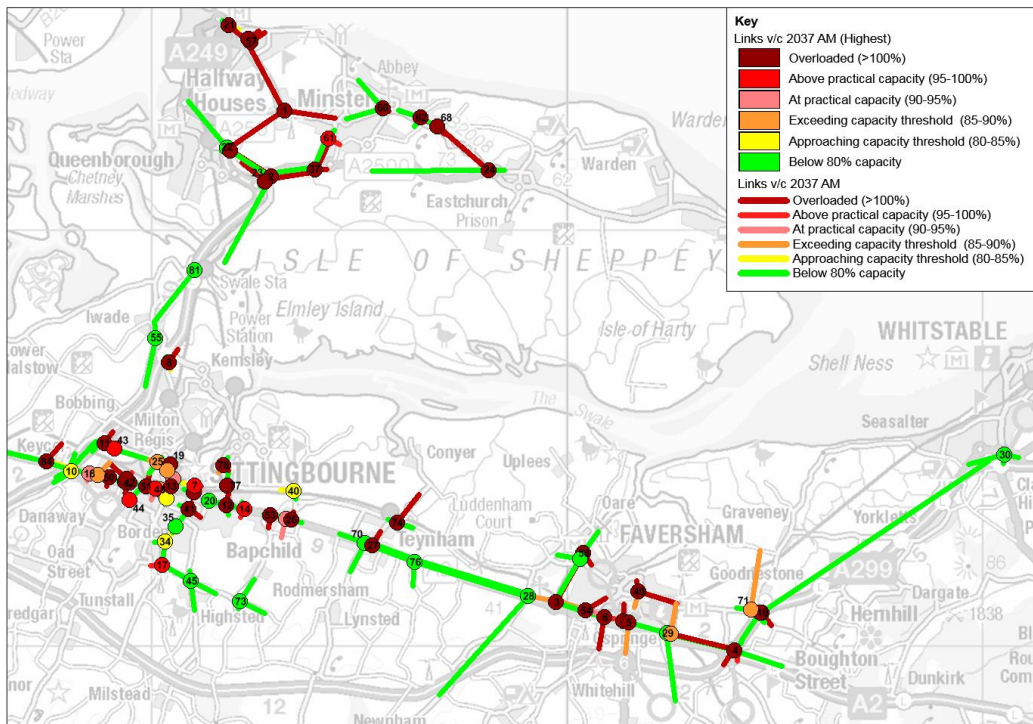
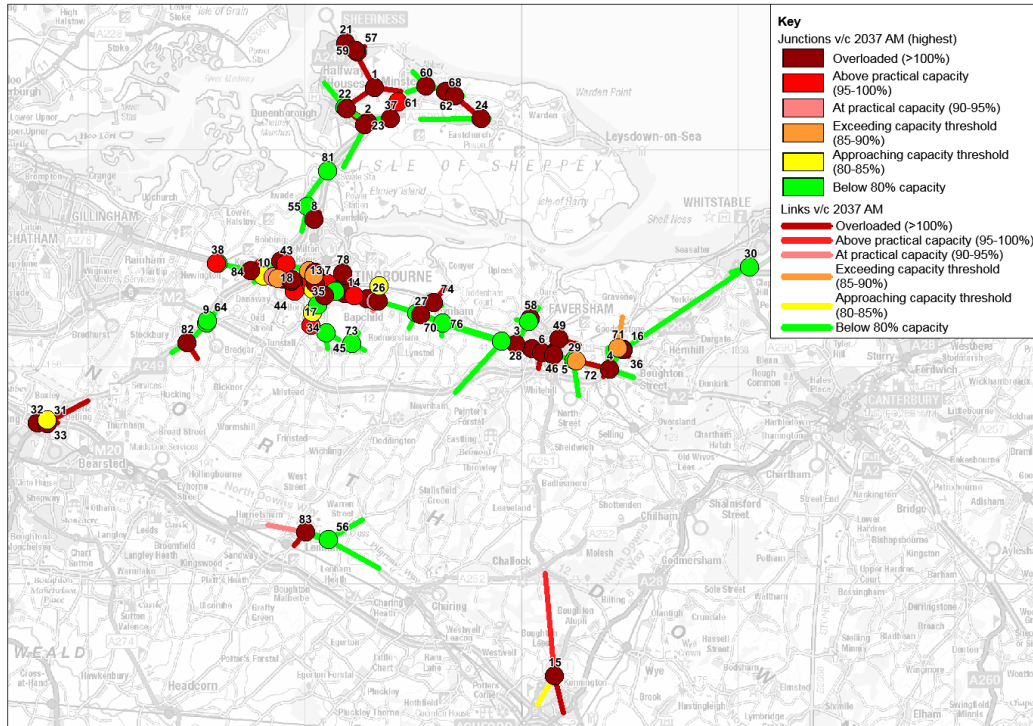
AM 2017 Junction and Link V/C Plot



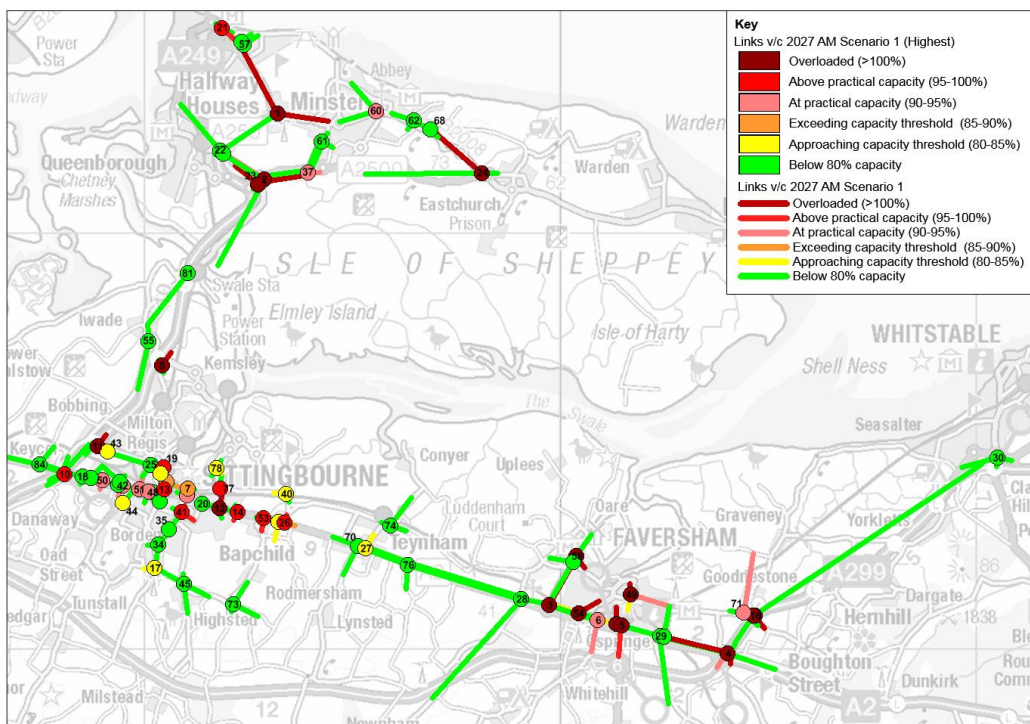
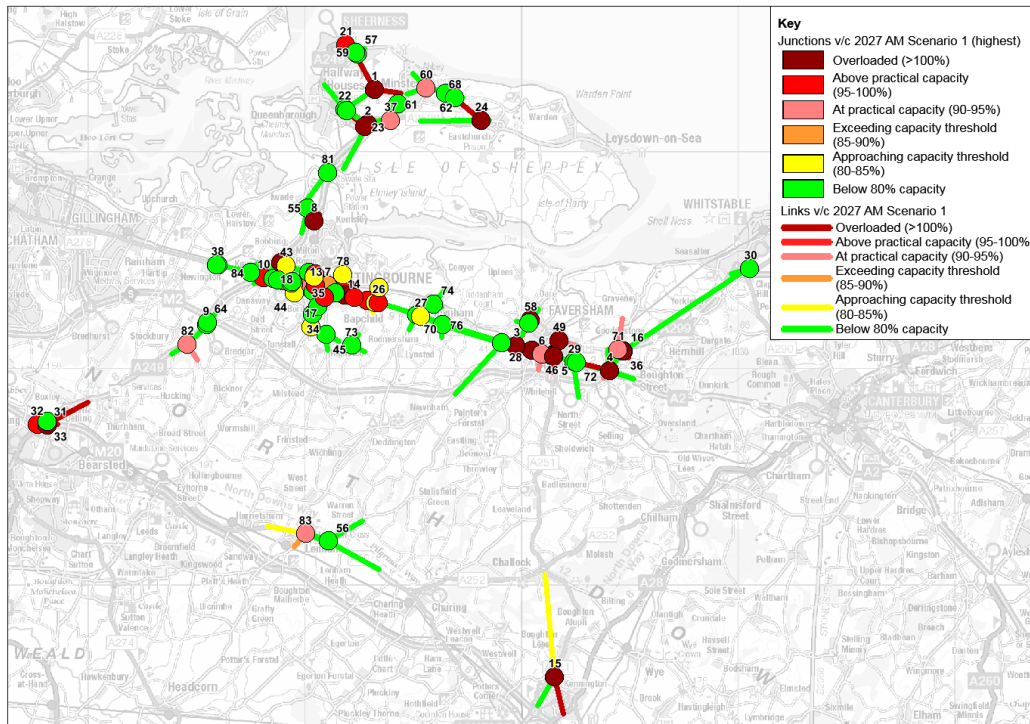
AM 2027 Junction and Link V/C Plot



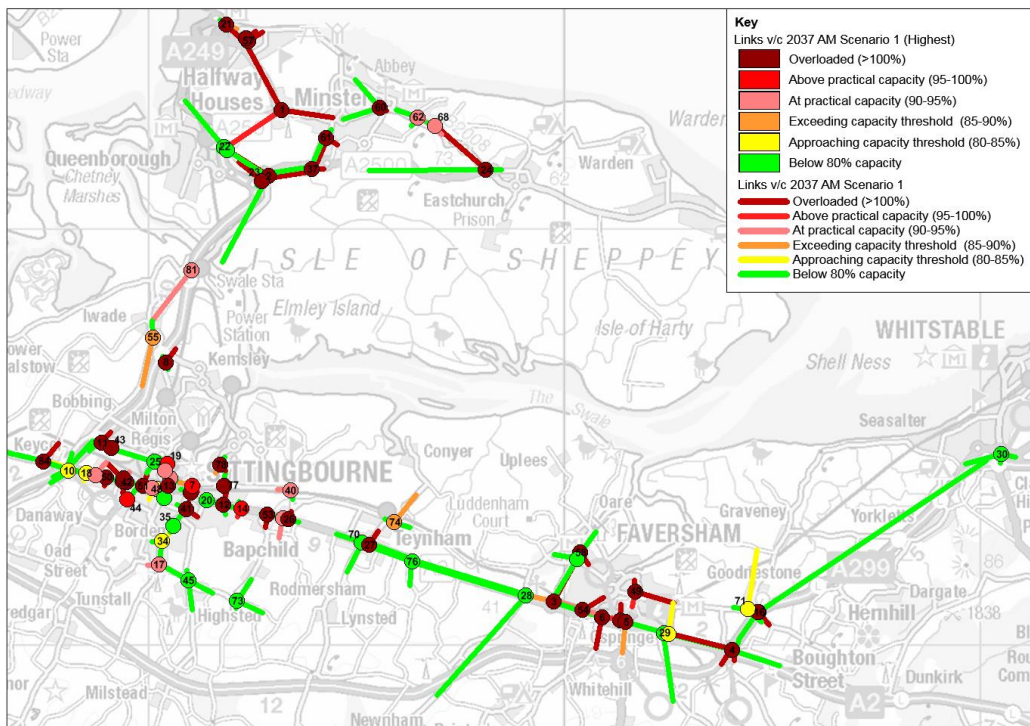
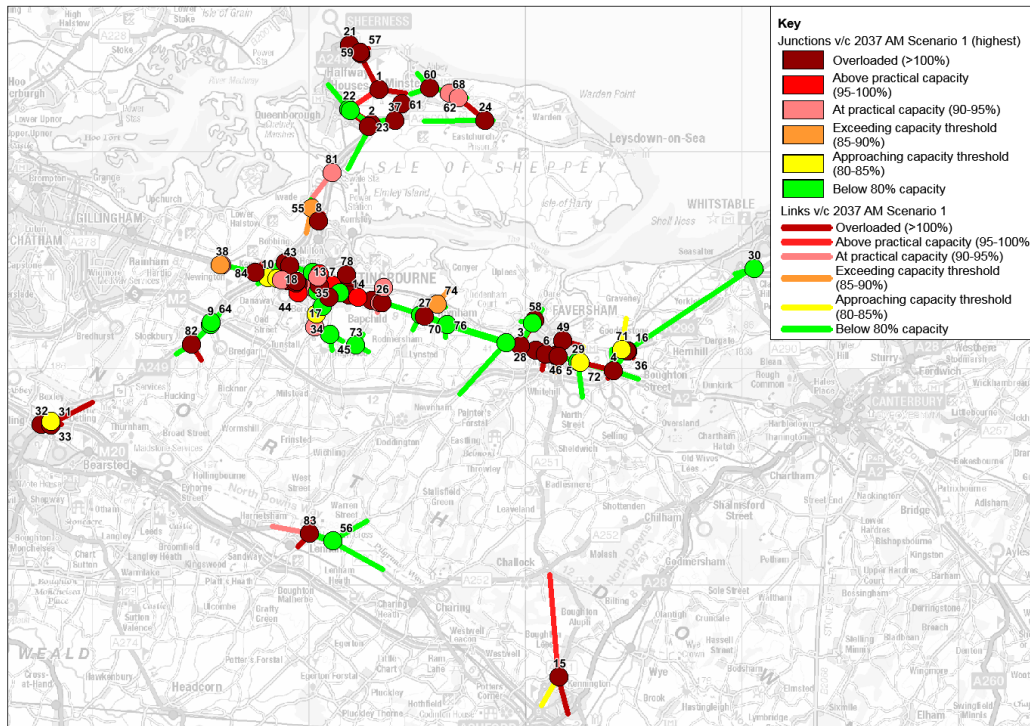
AM 2037 Junction and Link V/C Plot



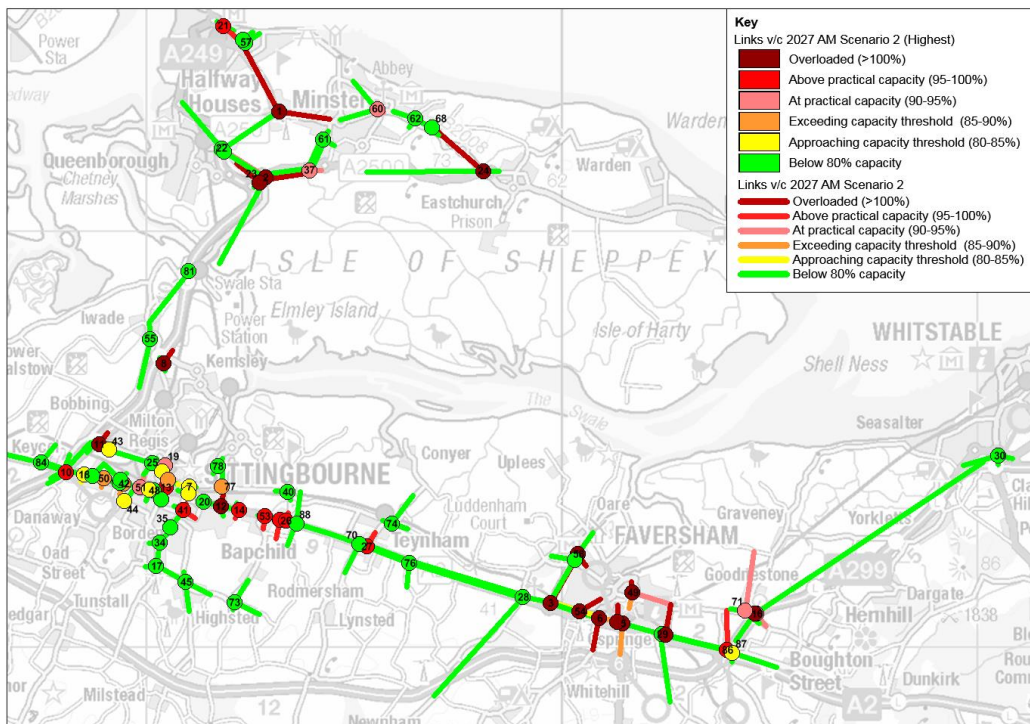
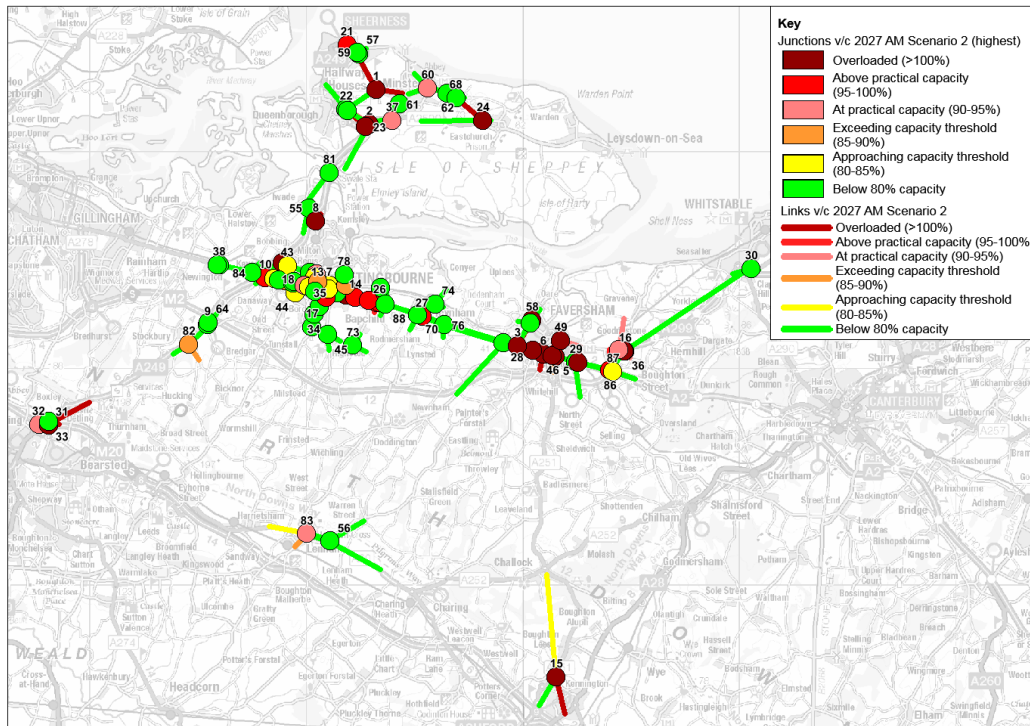
AM 2027 Scenario 1 Junction and Link V/C Plot



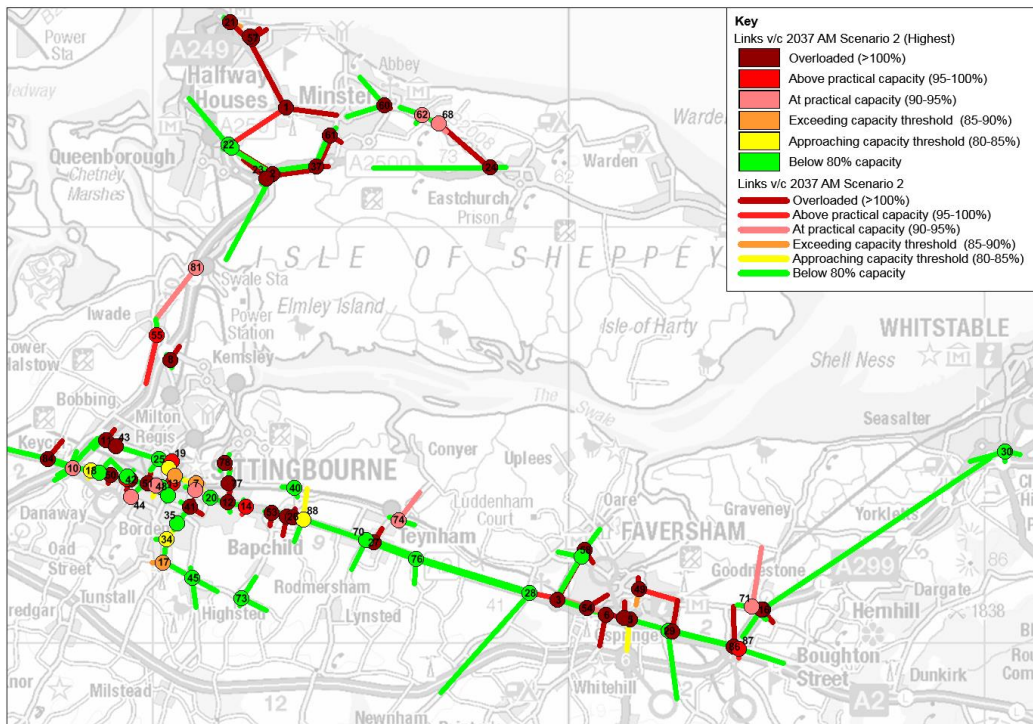
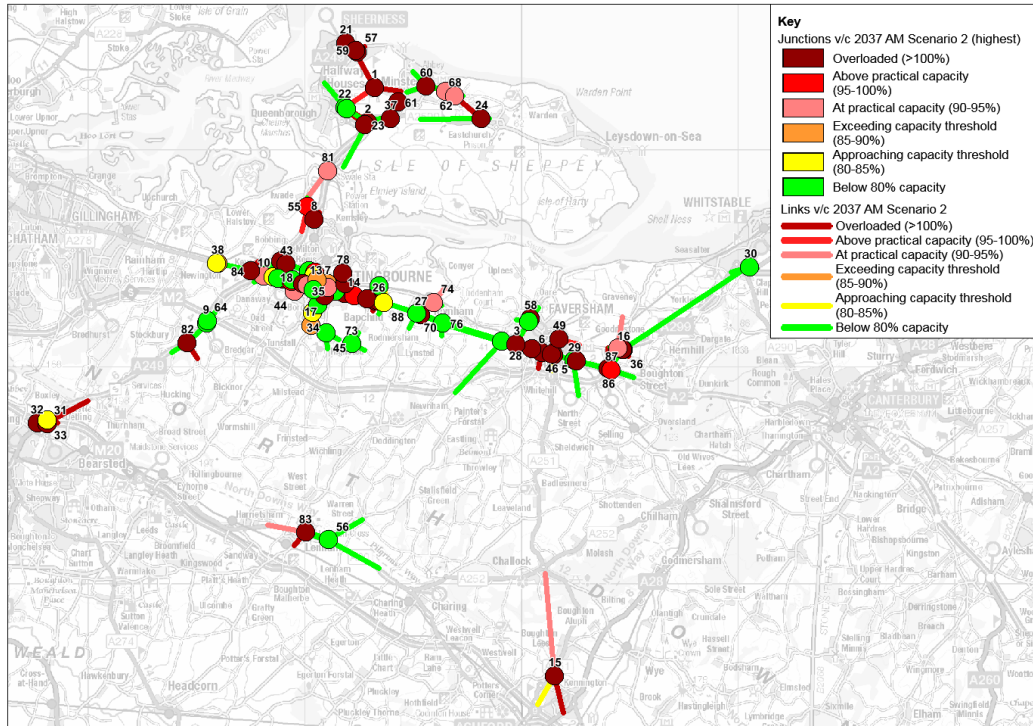
AM 2037 Scenario 1 Junction and Link V/C Plot



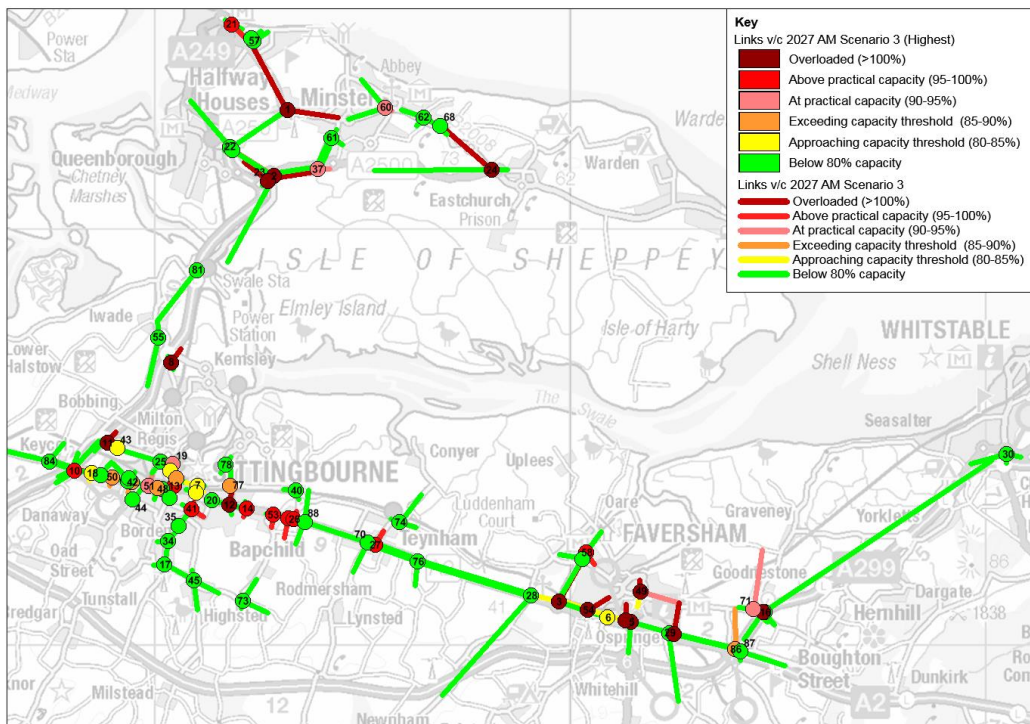
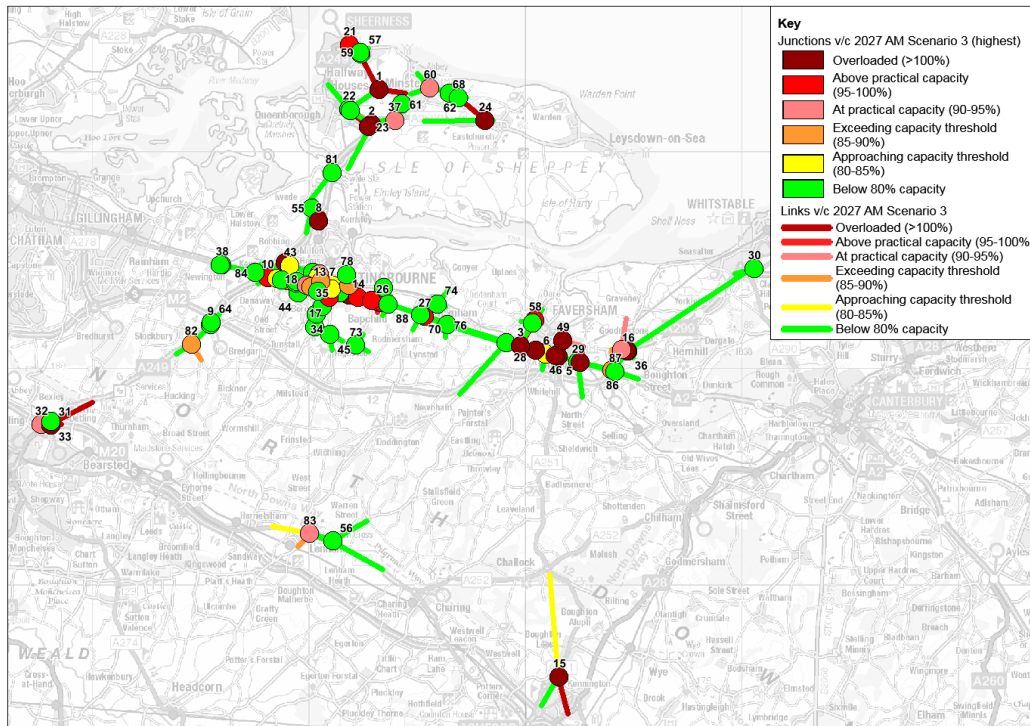
AM 2027 Scenario 2 Junction and Link V/C Plot



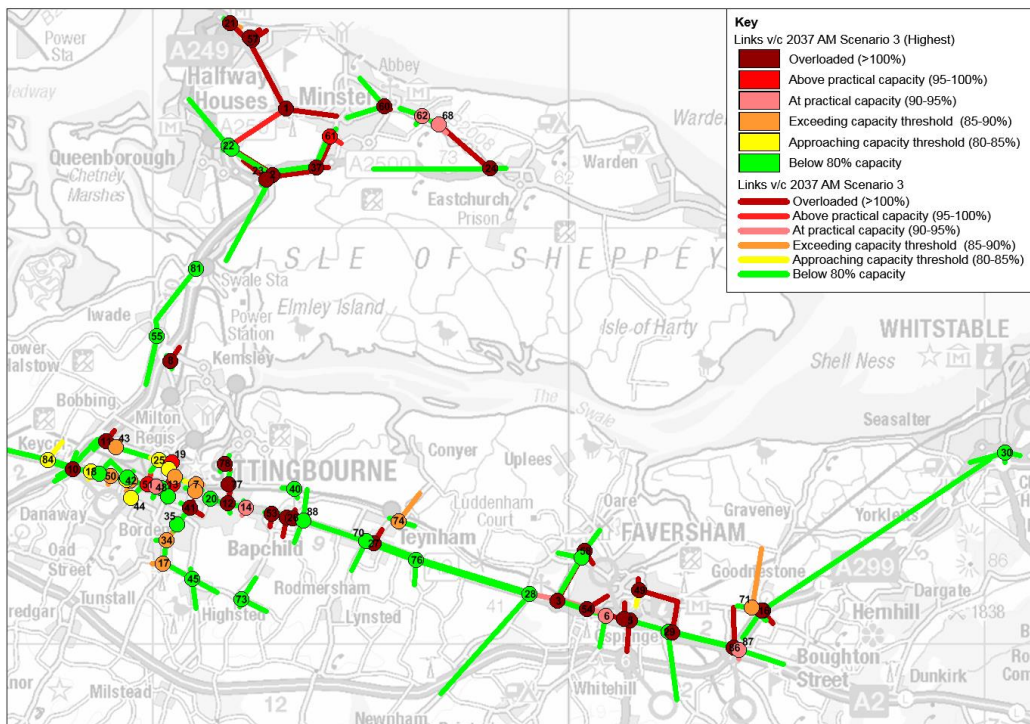
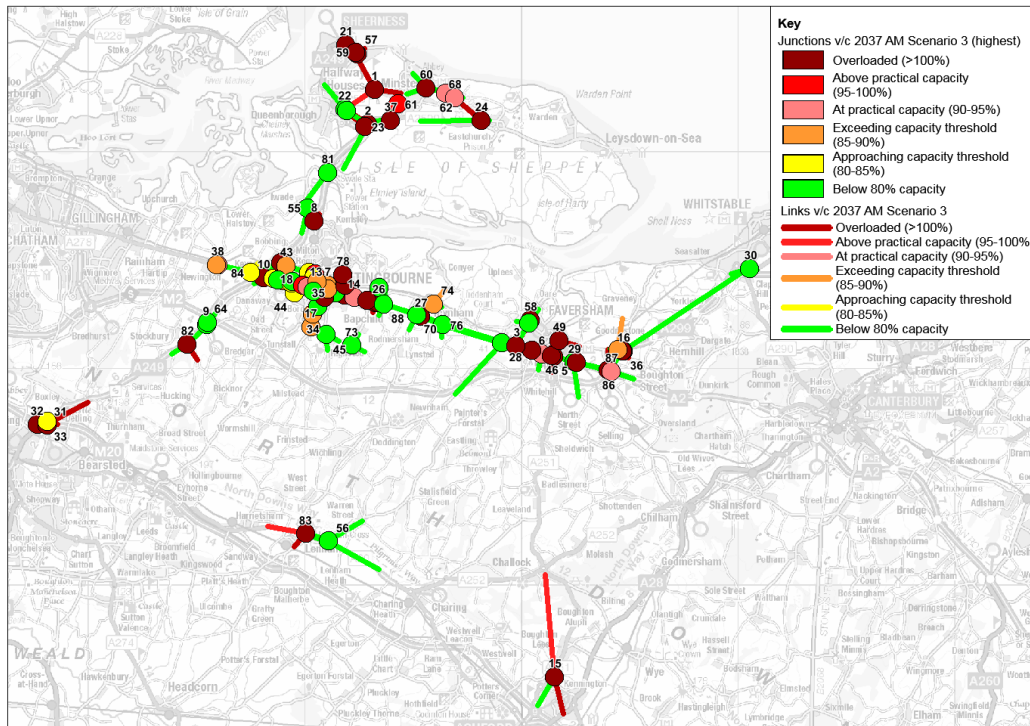
AM 2037 Scenario 2 Junction and Link V/C Plot



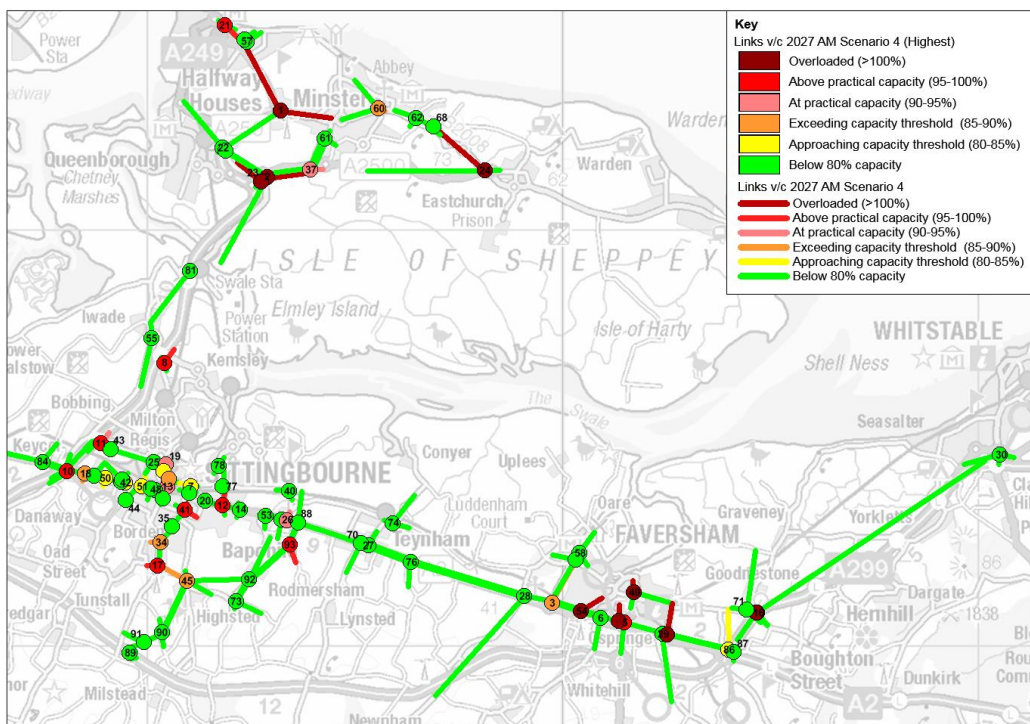
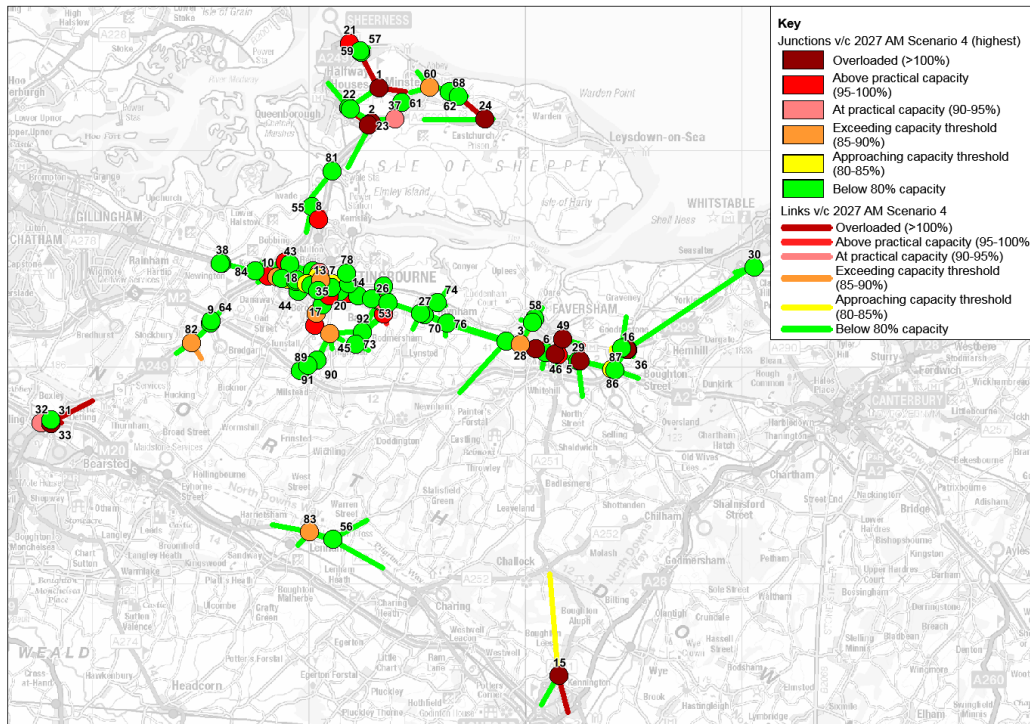
AM 2027 Scenario 3 Junction and Link V/C Plot



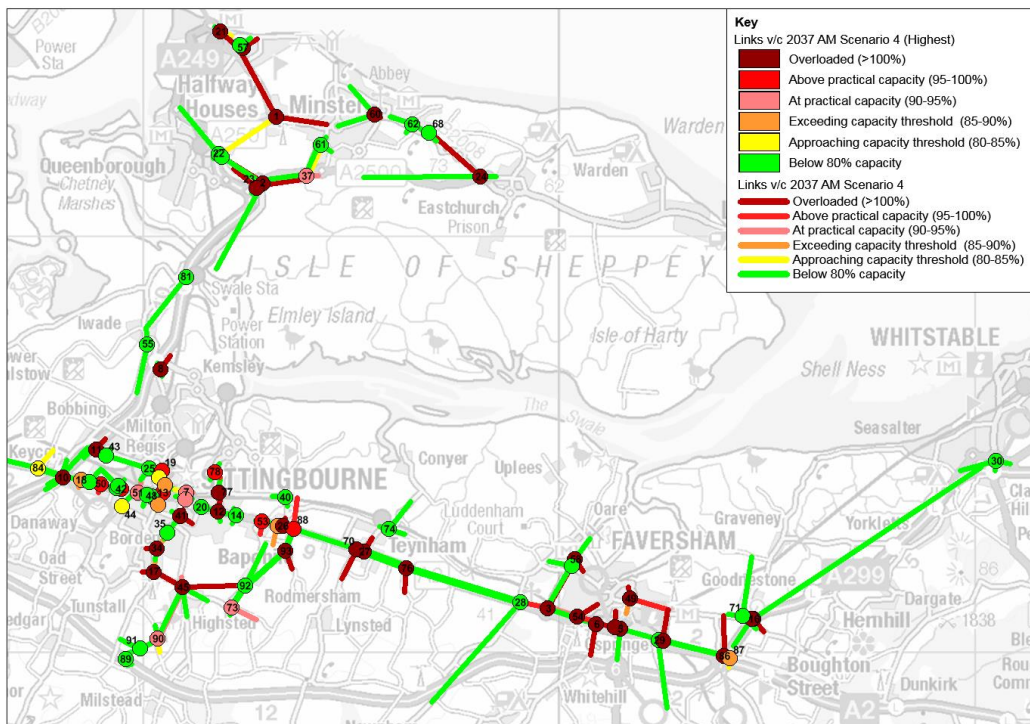
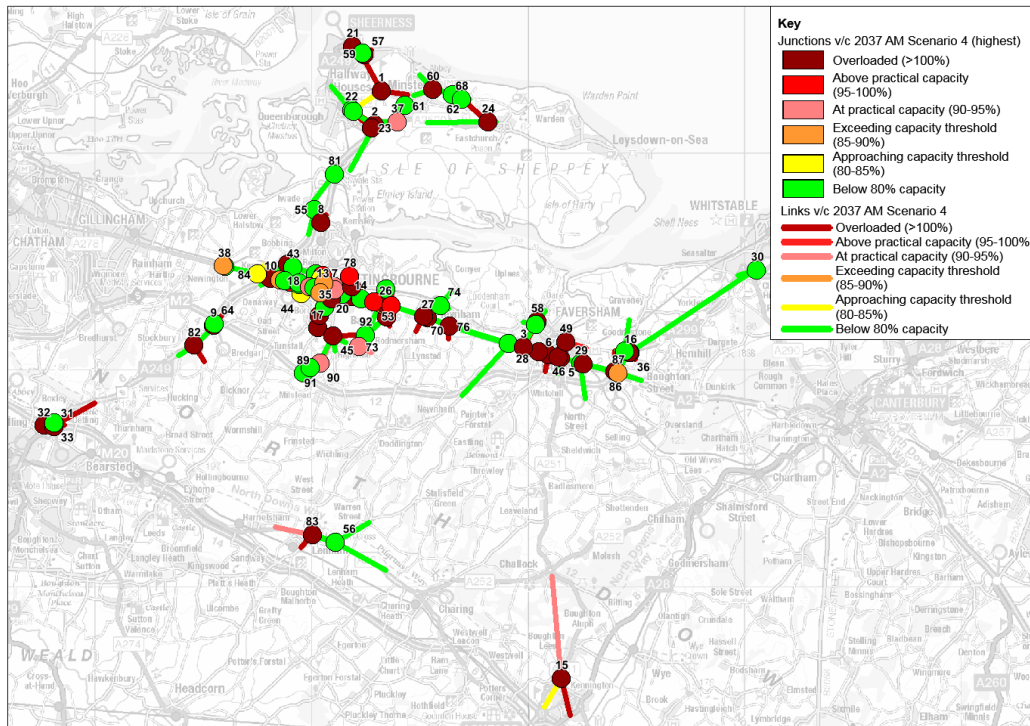
AM 2037 Scenario 3 Junction and Link V/C Plot



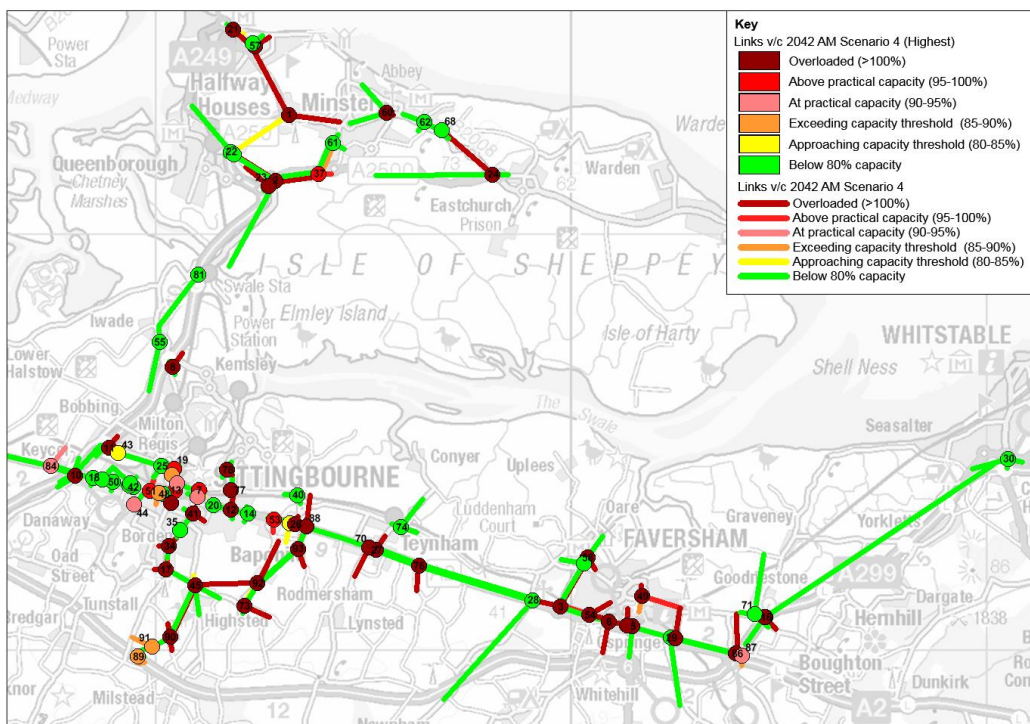
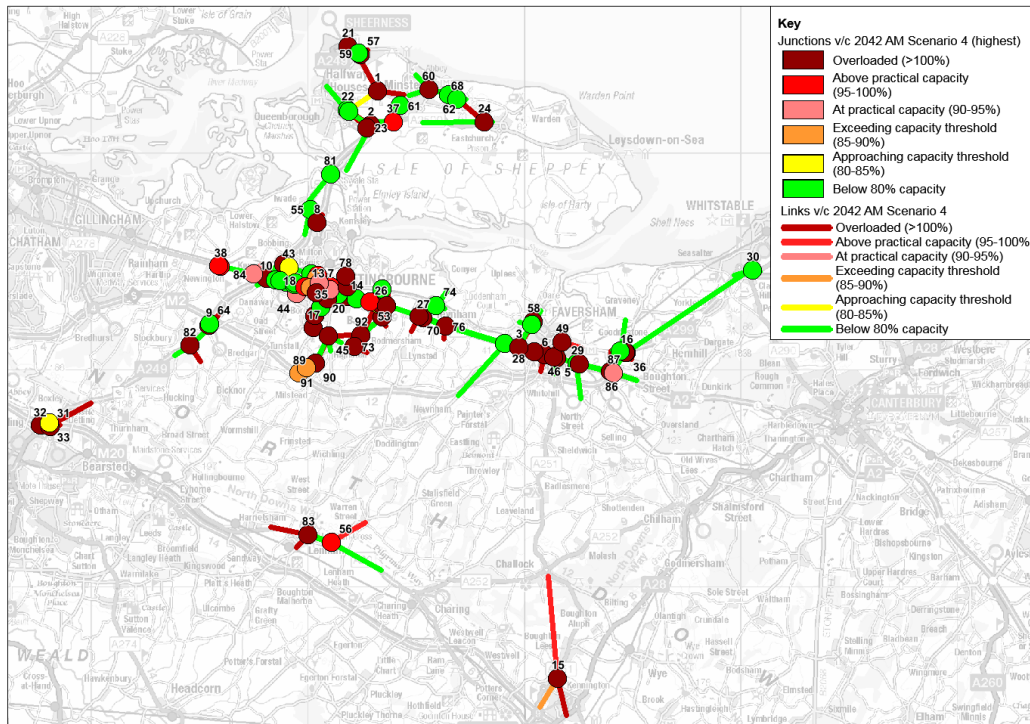
AM 2027 Scenario 4 Junction and Link V/C Plot



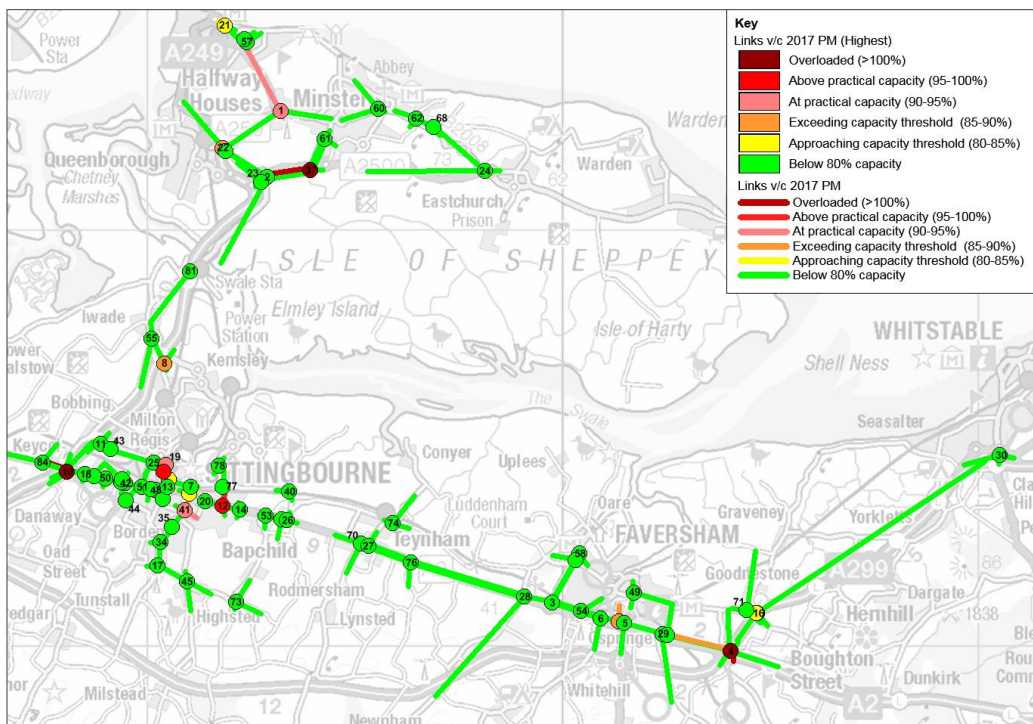
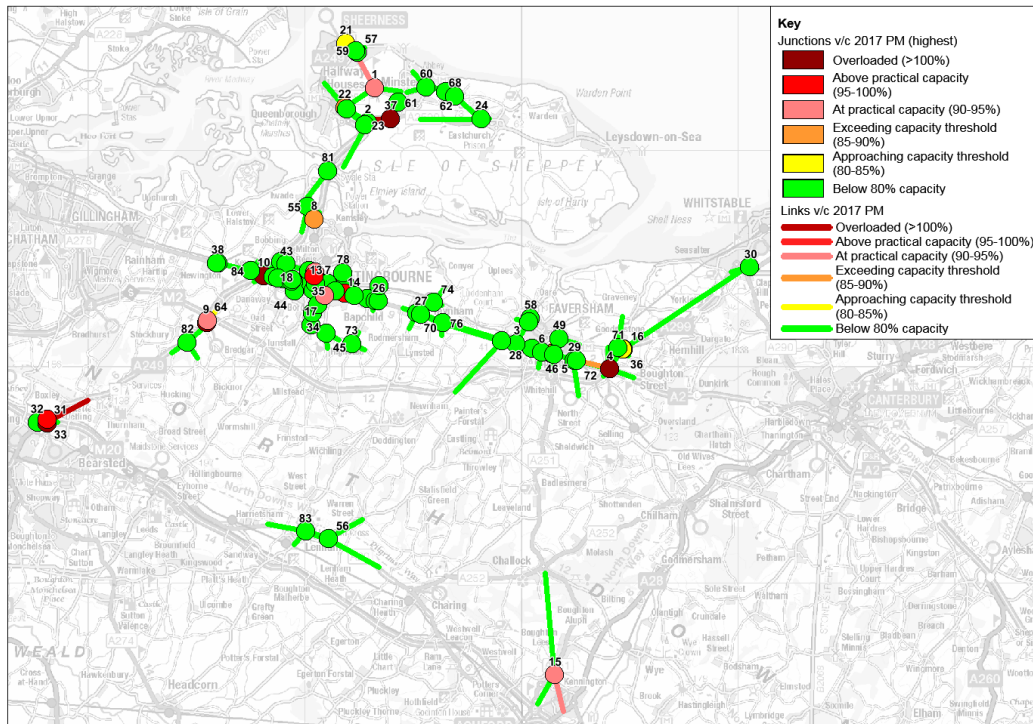
AM 2037 Scenario 4 Junction and Link V/C Plot



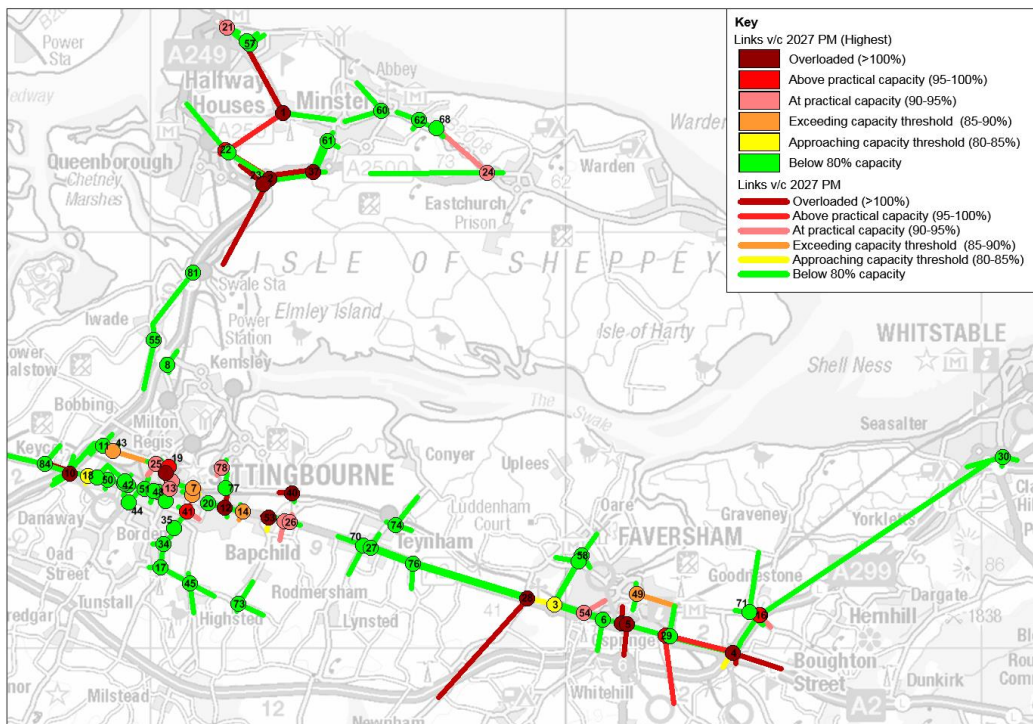
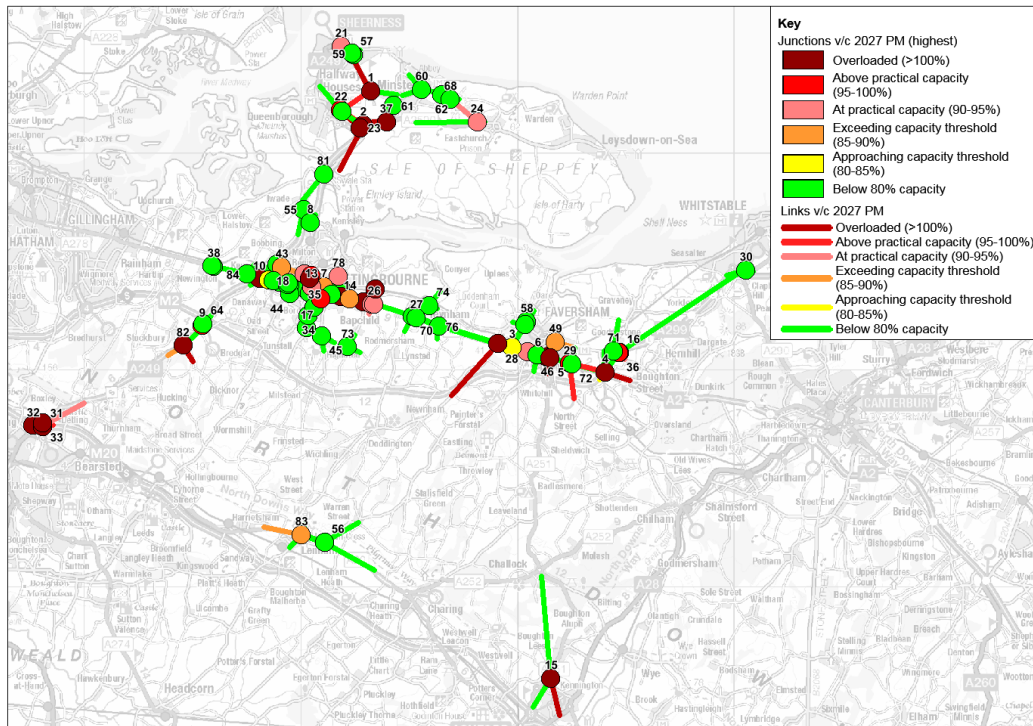
AM 2042 Scenario 4 Junction and Link V/C Plot



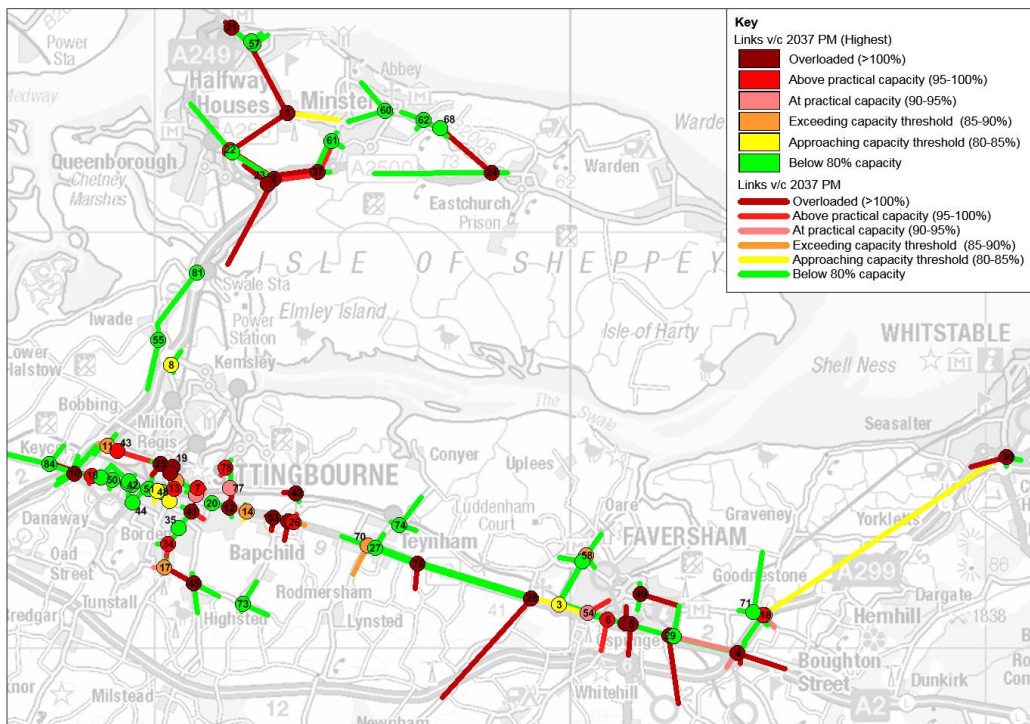
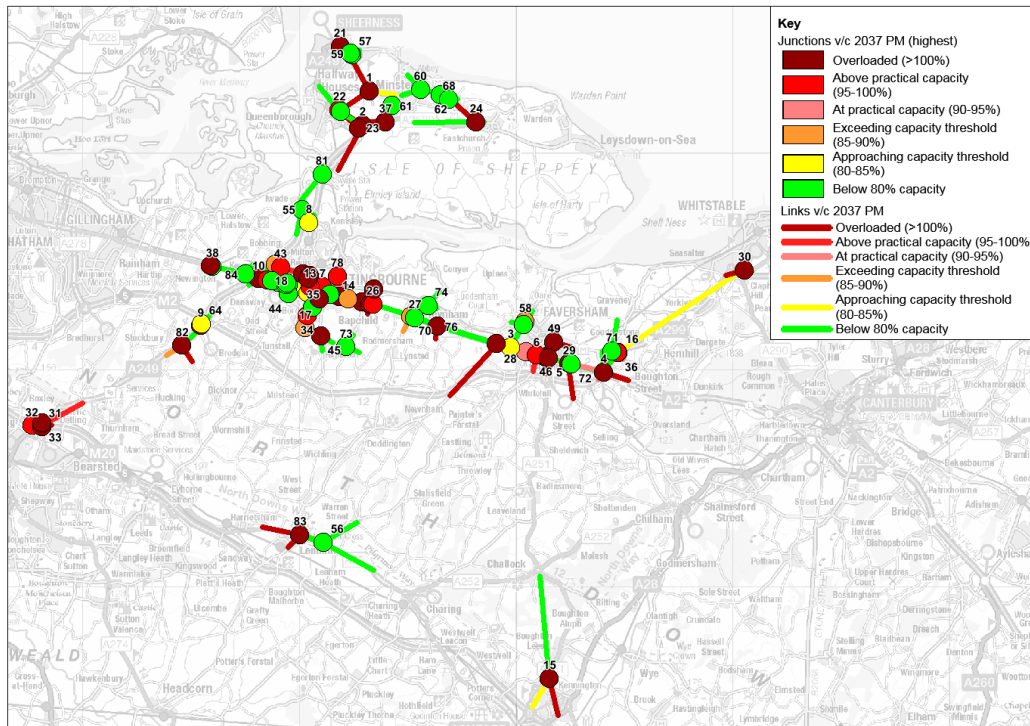
PM 2017 Junction and Link V/C Plot



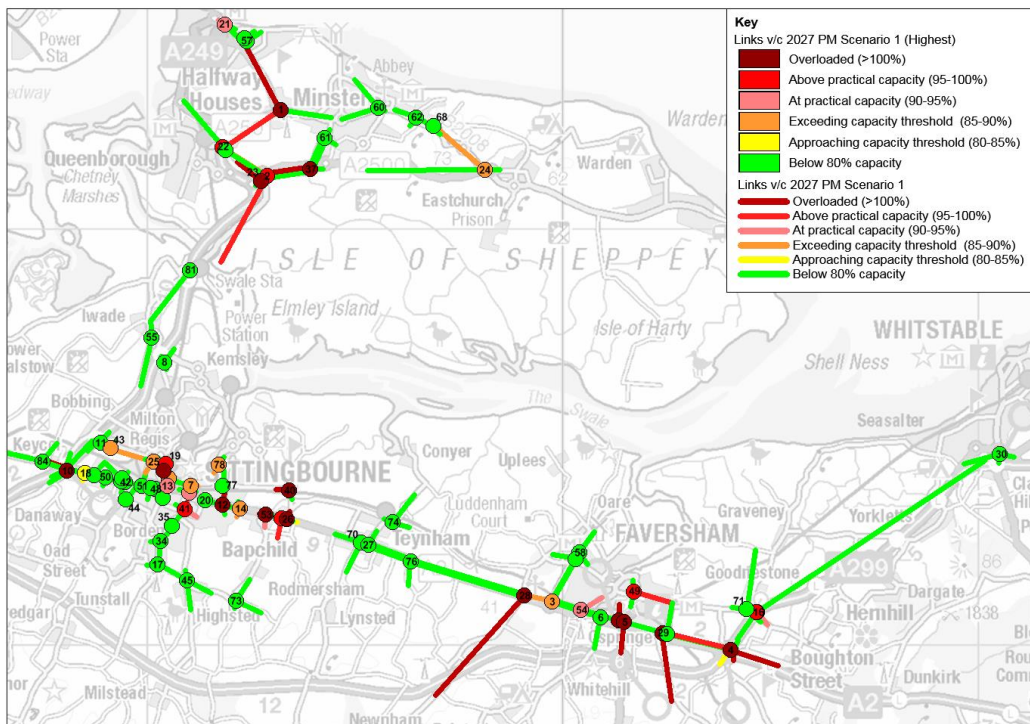
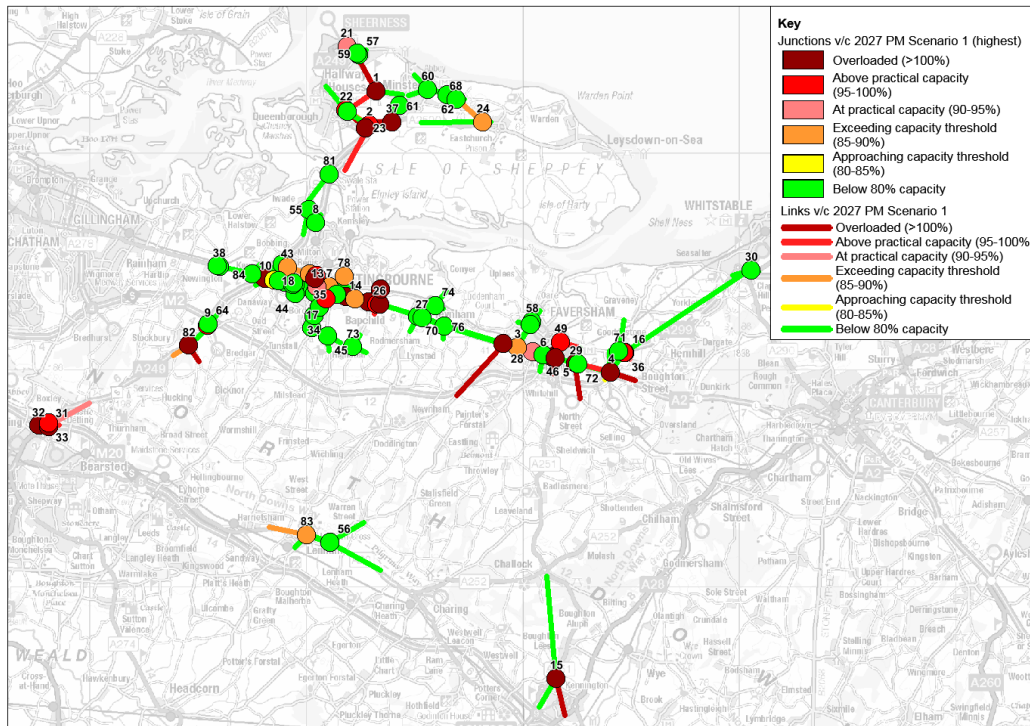
PM 2027 Junction and Link V/C Plot



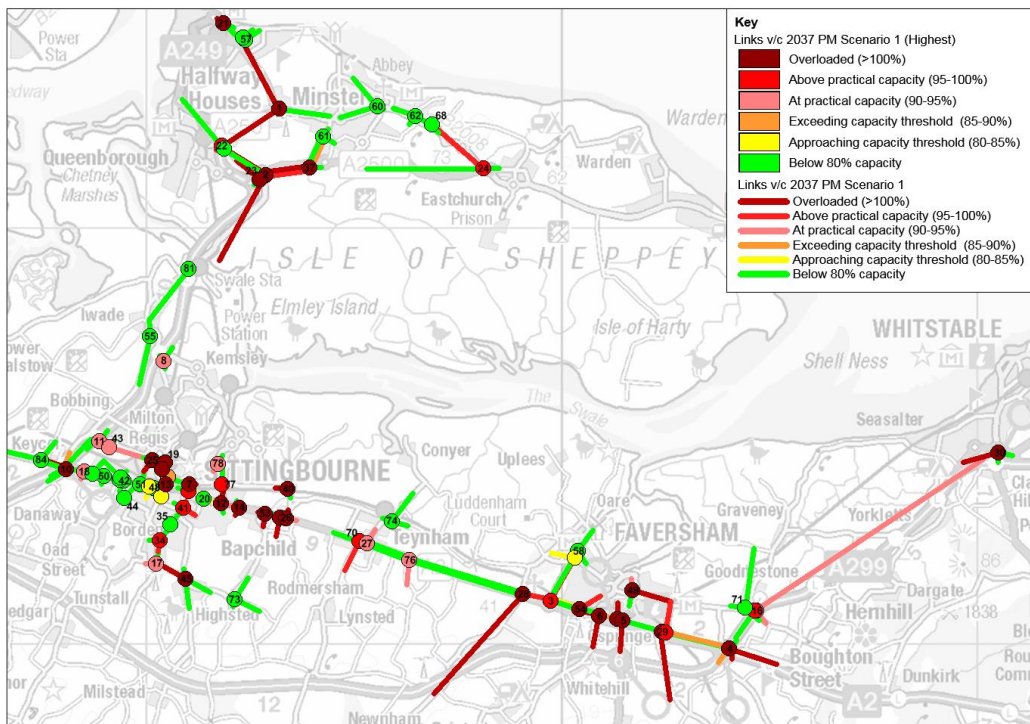
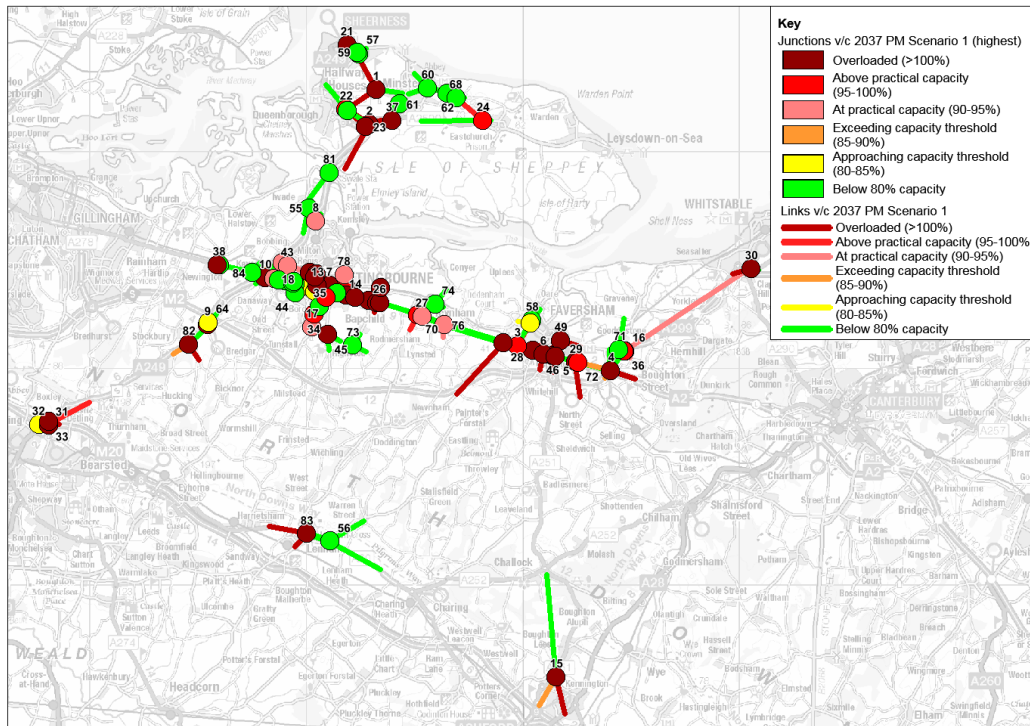
PM 2037 Junction and Link V/C Plot



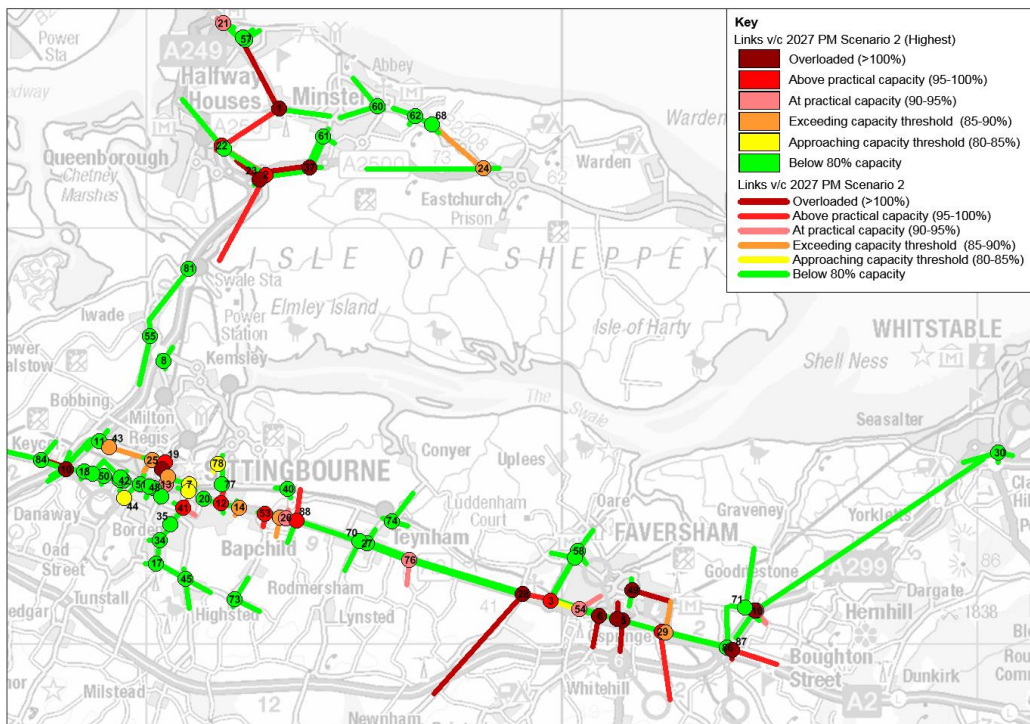
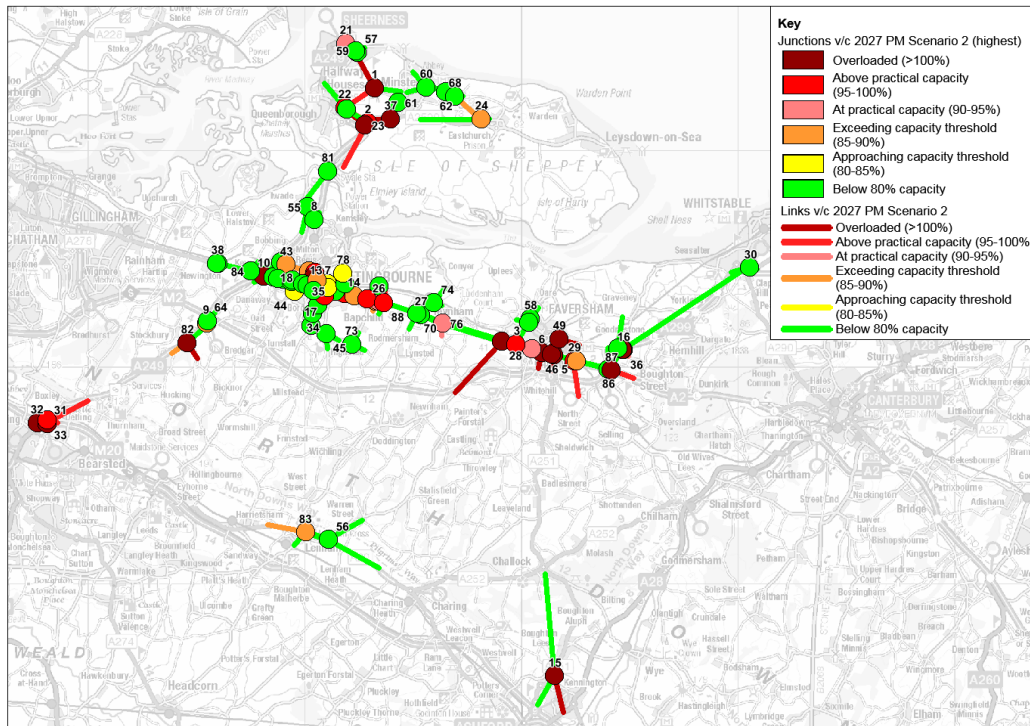
PM 2027 Scenario 1 Junction and Link V/C Plot



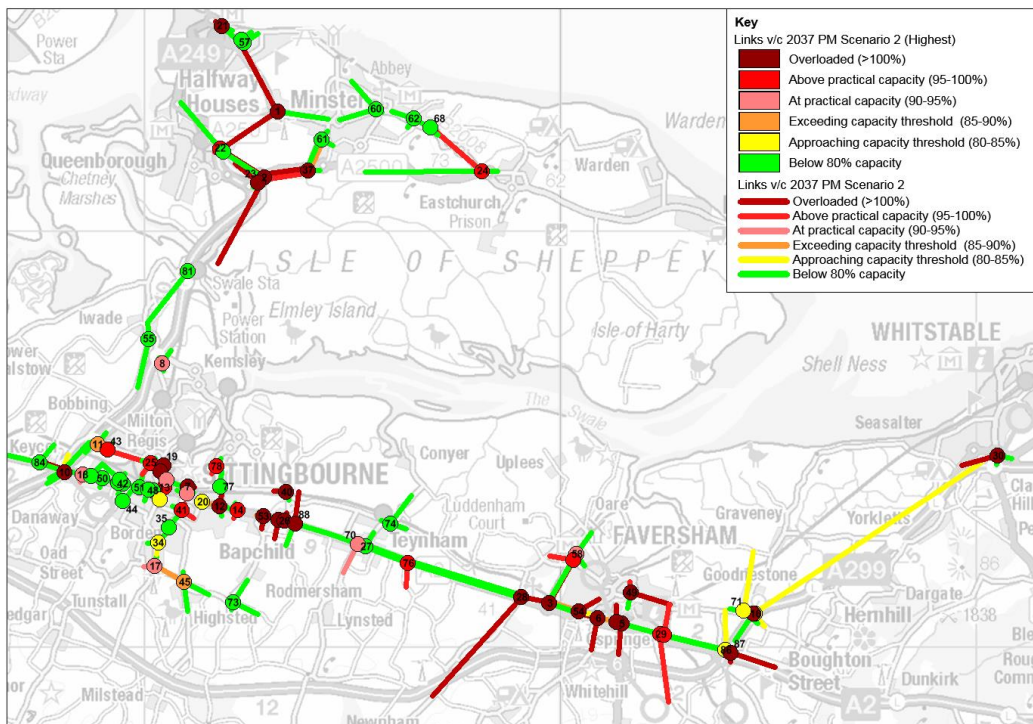
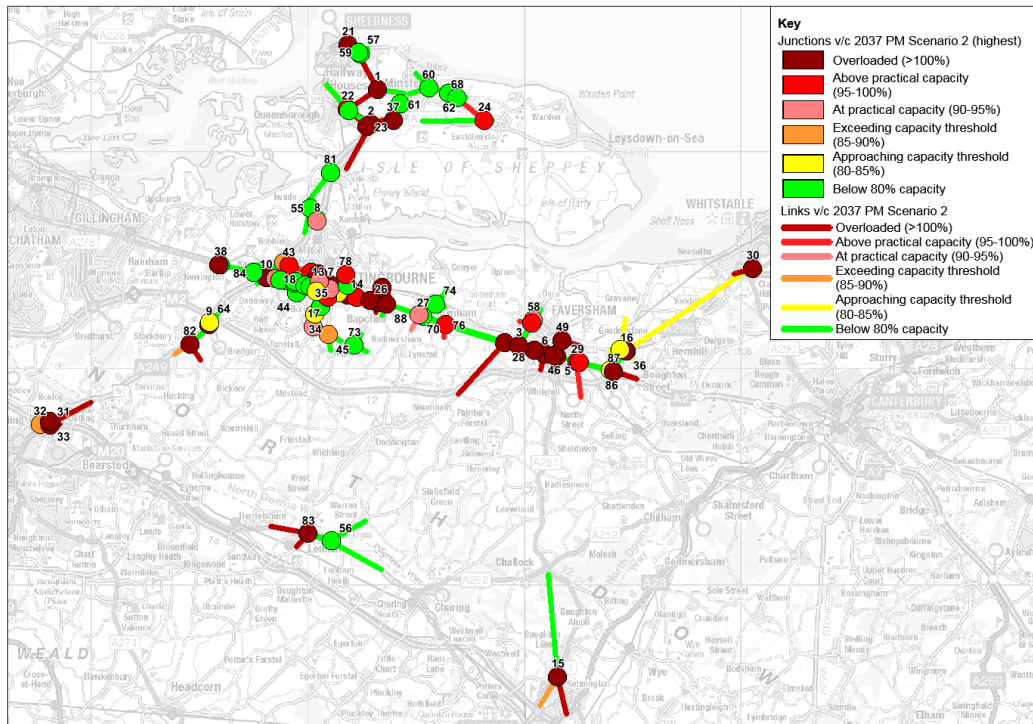
PM 2037 Scenario 1 Junction and Link V/C Plot



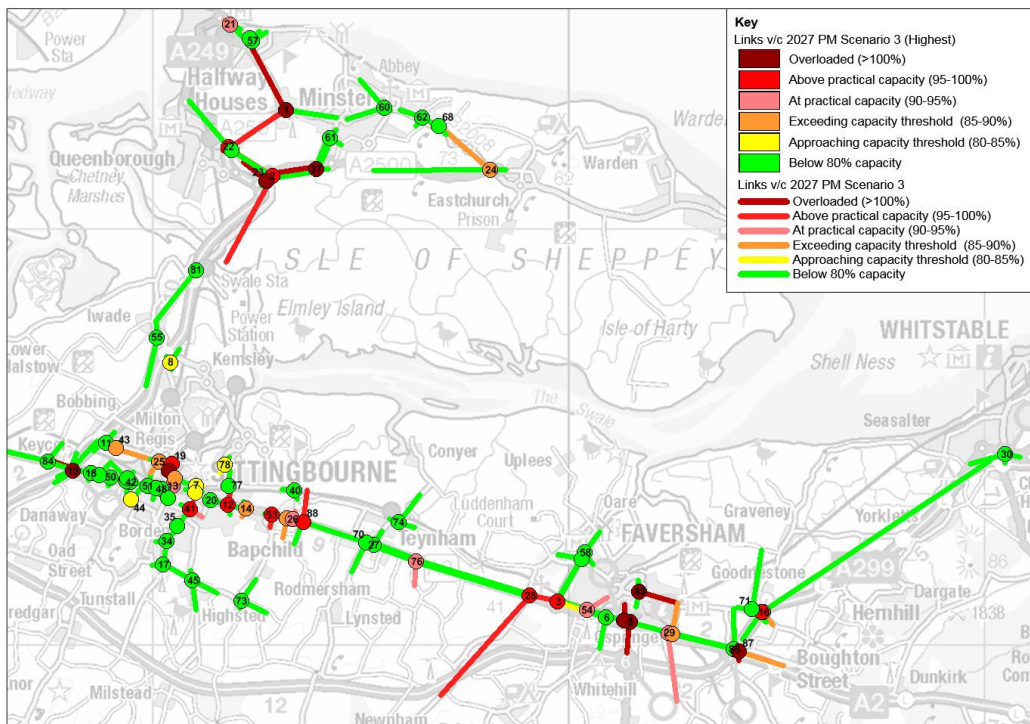
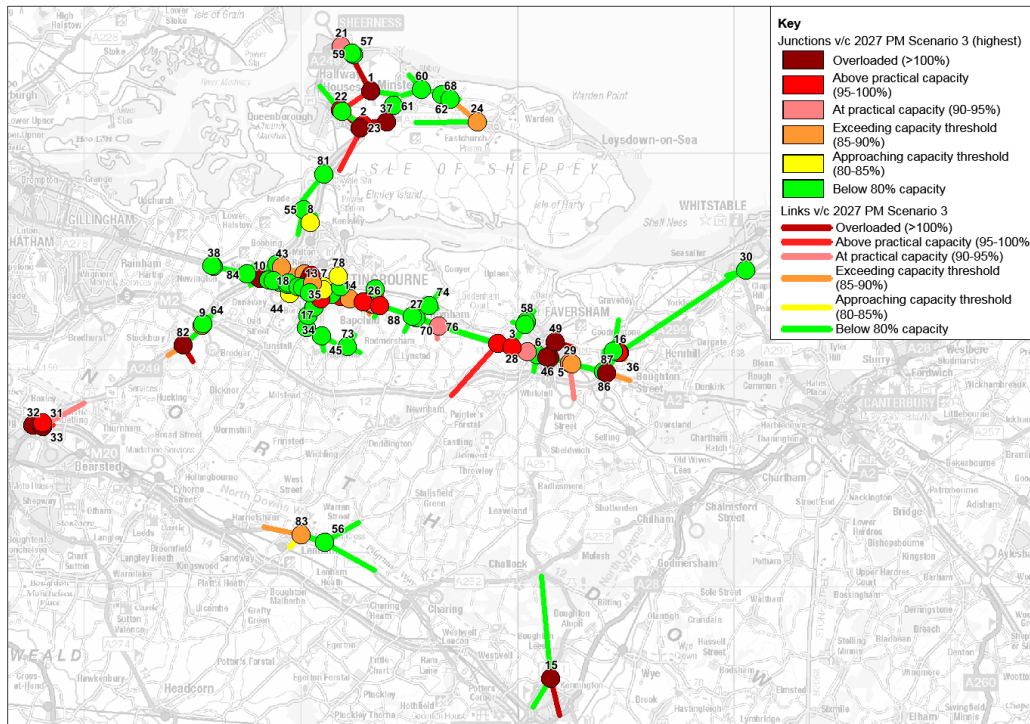
PM 2027 Scenario 2 Junction and Link V/C Plot



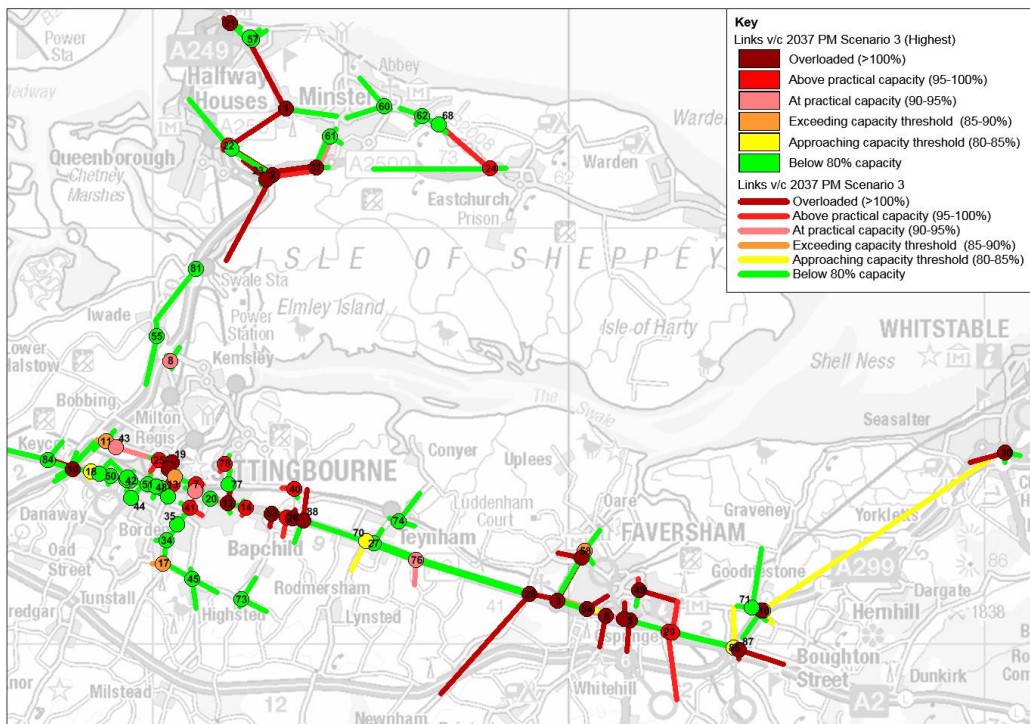
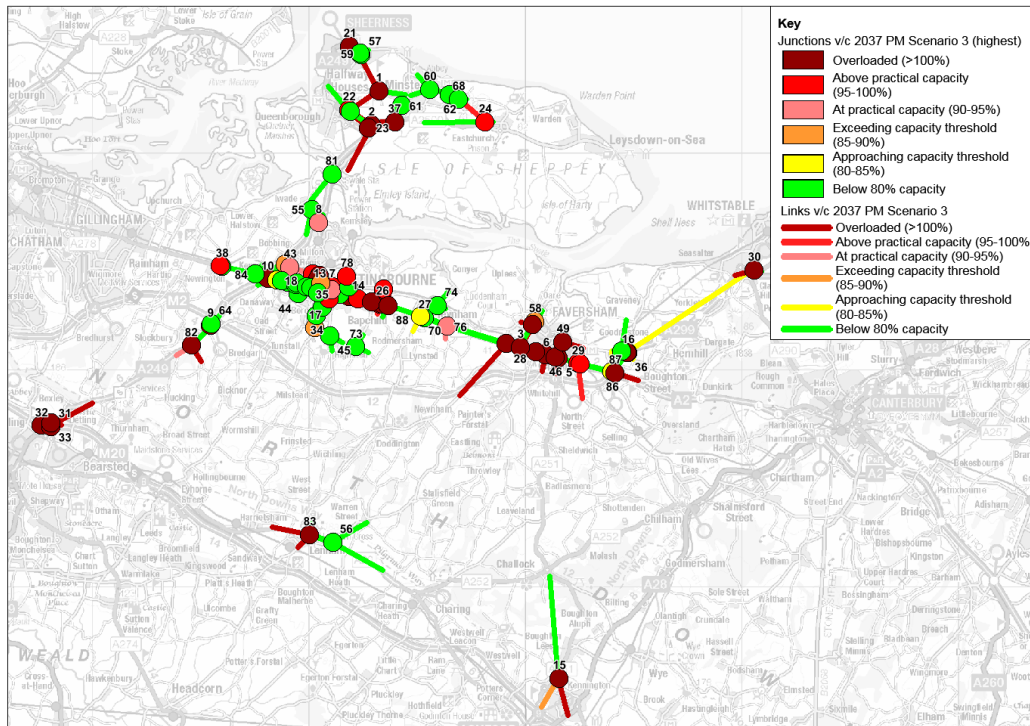
PM 2037 Scenario 2 Junction and Link V/C Plot



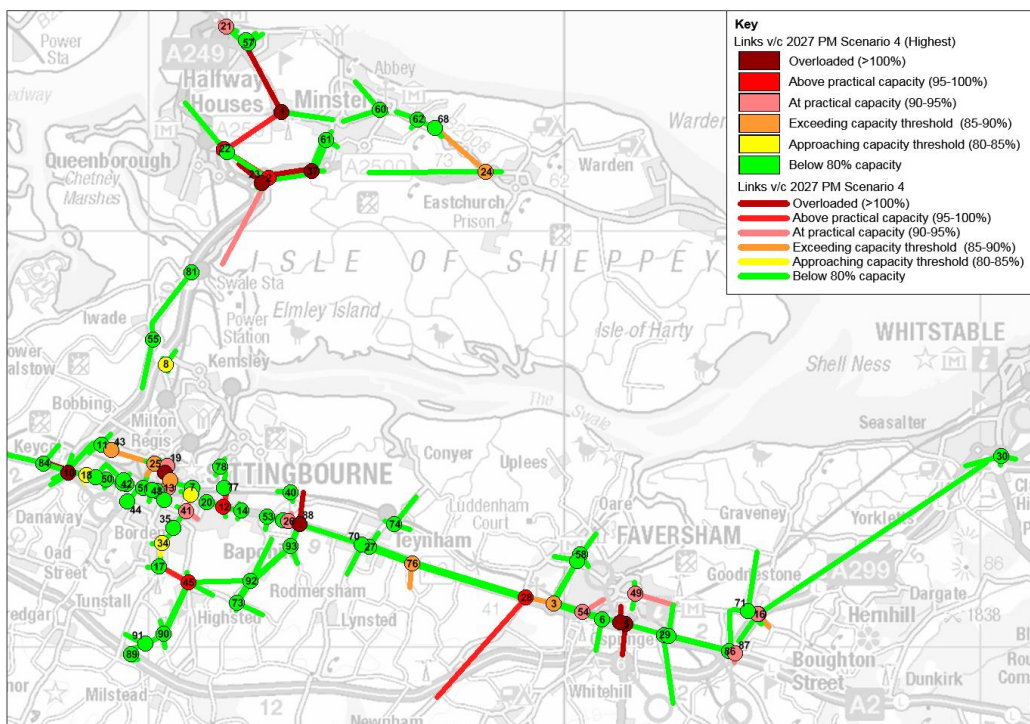
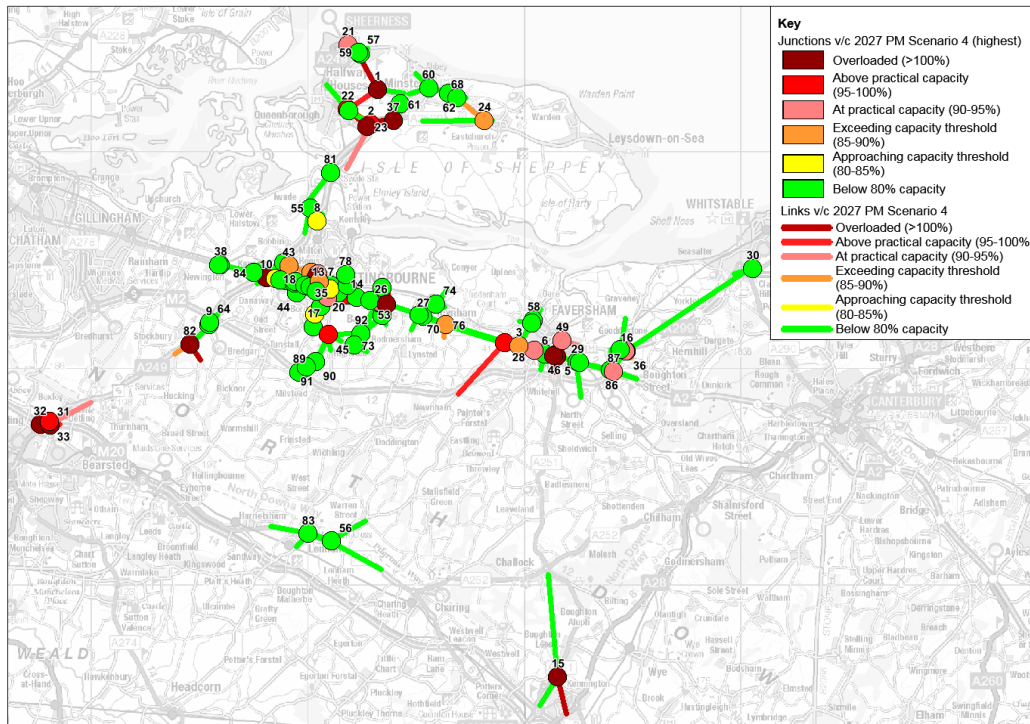
PM 2027 Scenario 3 Junction and Link V/C Plot



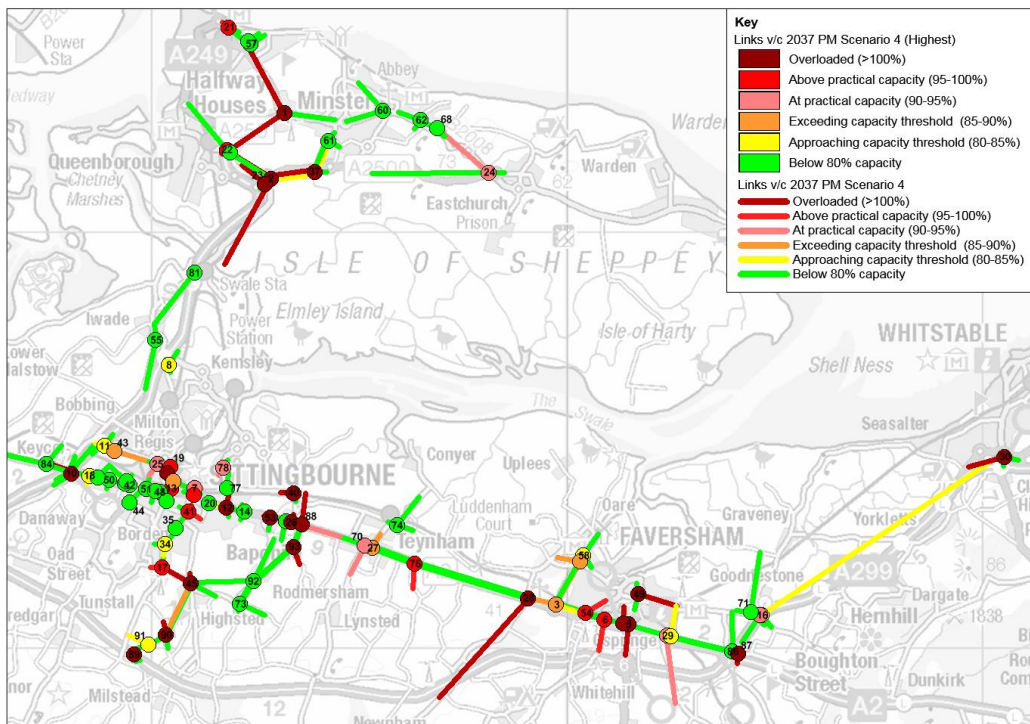
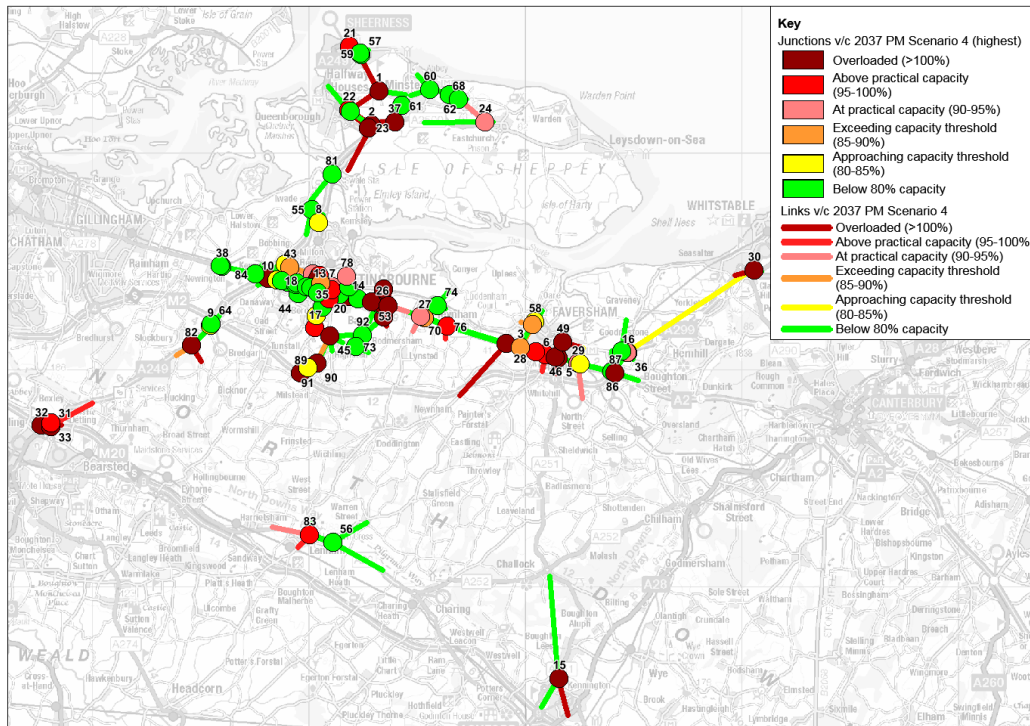
PM 2037 Scenario 3 Junction and Link V/C Plot



PM 2027 Scenario 4 Junction and Link V/C Plot



PM 2037 Scenario 4 Junction and Link V/C Plot



PM 2042 Scenario 4 Junction and Link V/C Plot

